

FOOD, FARMING, & SUSTAINABILITY: READINGS IN AGRICULTURAL LAW

2015 SUPPLEMENT

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Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Agriculture and Agricultural Law](#).

I. Agriculture and Agricultural Law

E. What is a family farm?

Additional Information to be added at the end of this section, on page 44:

In 2013, as a reflection of commodity price increases and a shift in production to larger farms, the USDA categories of farms were revised. The following table provides the new definitions.

Revised ERS Farm Typology

Farm Type	Farm Operator's Primary Occupation	Farm Size Measured by Annual Gross Cash Farm Sales
Small Family Farm	Varies	Less than \$350,000
Retirement Farms	Retired from farming	Less than \$350,000
Off-farm Occupation Farms	Non-farm	Less than \$350,000
Farm Occupation Farms:		
Low-sales	Farming	Less than \$150,000
Moderate-sales	Farming	\$150,000 - \$349,999
Mid-Sized Family Farm	Not a criterion	\$350,000-\$999,999
Large-scale Family Farm	Not a criterion	\$1,000,000 or more
Large farms	Not a criterion	\$1,000,000 to \$499,999,999
Very large farms		\$5,000,000,000 or more

Robert A. Hoppe, *Structure and Finances of Family Farms: Family Farm, Report 2014 Edition 4*, USDA, ERS, Econ. Inform. Bull. No. 132 (Dec. 2014) (linked on www.FoodFarmingSustainability.com).

The USDA ERS summarizes its findings as follows:

Family farms accounted for 97 percent of U.S. farms in 2011. Small family farms alone—those reporting annual gross cash farm income (GCFI) less than \$350,000—made up 90 percent of farms. They also operated 52 percent of the Nation’s farmland.

In contrast, small farms accounted for a relatively small share of production, 26 percent, although their share of production was much higher for specific commodities. For example, small farms accounted for 56 percent of poultry production, which accounted for the largest share of small farms’ production under contract.

Midsize and large-scale family farms together produce the bulk of agricultural output. Large-scale and midsize family farms made up only 8 percent of all U.S. farms in 2011, but they accounted for 60 percent of the value of U.S. agricultural production. Another 3 percent of farms were nonfamily farms, producing 15 percent of U.S. farm output; roughly 85 percent of nonfamily farm output was on farms with GCFI of \$1,000,000 or more. Most nonfamily farms (78 percent), however, had GCFI below the \$350,000 cutoff used to identify small farms.

Small family farms are more likely to have profitability measures that fall in the critical zone, indicating potential financial problems. About three-fourths of U.S. farms are in the critical zone for rate of return on assets (a value less than 1 percent), and two-thirds are in the critical zone for operating profit margin (a value less than 10 percent). The shares in these critical zones are especially high for farms in the retirement, off-farm occupation, and low-sales categories, tapering off rapidly as farm size (measured by GCFI) increases.

Robert A. Hoppe, *Structure and Finances of Family Farms: Family Farm, Report 2014 Edition, Report Summary*, USDA, ERS, Econ. Inform. Bull. No. 132 (Dec. 2014), available on the USDA ERS website and linked on www.FoodFarmingSustainability.com

F. A Survey of Current U.S. Agricultural Production

Updated Information, replacing the text in this subsection, pages 45-49:

Every 5 years, the USDA National Agricultural Statistics Service (NASS) conducts a Census or survey of U.S. agriculture. NASS describes this census providing "a complete count of U.S. farms and ranches and the people who operate them" and it includes information about "land use and ownership, operator characteristics, production practices, income and expenditures, and many other areas."

The first agriculture Census was taken in 1840, and for the next 156 years (1840–1996) the U.S. Department of Commerce, Bureau of the Census conducted the Census of Agriculture. In 1997, responsibility for conducting the Census of Agriculture transferred to the USDA NASS. The most recent census, the 2012 Census of Agriculture was the 28th Federal Census of Agriculture and the fourth conducted by NASS.

The 2012 Census reports fewer farmers than in 2007, but the productivity and economic influence of American agriculture has increased. The Census reveals a productive, largely industrialized agricultural sector that produces food, fiber, and fuel for the United States and for export. The following summary of U.S. agriculture is based on the 2012 Census of Agriculture. The data and the summary reports are available on the USDA NASS Ag Census website and a link is provided on www.FoodFarmingSustainability.com.

1. The Number of Farms

As noted, the USDA National Agricultural Statistics Service (NASS) uses a broad definition of the term “farm” for purpose of the census, defining it as any place that produced or sold — or normally would have produced or sold — \$1,000 or more of agricultural products in a given year.

The 2012 Census of Agriculture counted 2,109,303 farms in the United States, down 4.3 percent from the previous census in 2007. The 2007 Census had shown an increase, an exception to the general trend. Other than in 2007, the number of farms has declined each census since World War II. The majority of these 2.1 million farms are small farms, measured by sales, and the majority are supported by off-farm income. Seventy-five percent had farm sales of less than \$50,000 in 2012, and almost 57 percent had sales less than \$10,000.

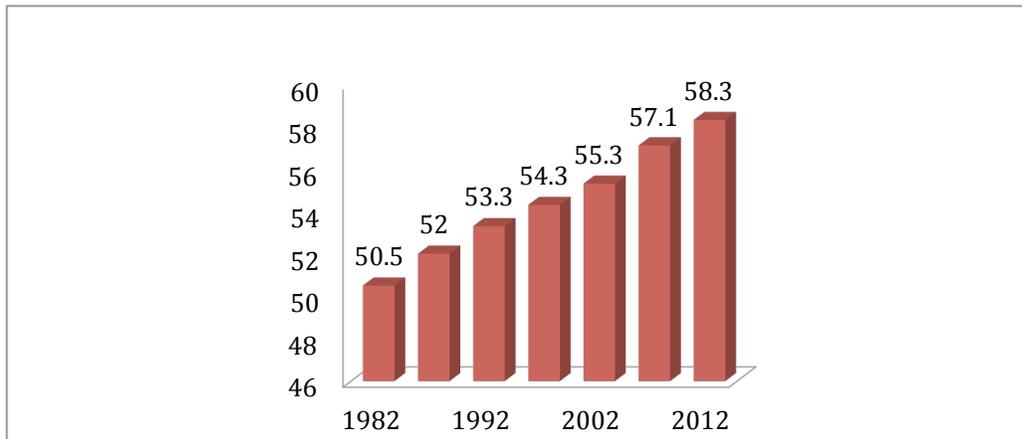
2. The Number of Farmers and Farm Demographics

The number of farmers is also down, from 2007 to 2012, a disappointment to many who were encouraged by an increase observed in 2007. The 2012 Census counted 3,180,074 farmers, a decline of 3.1 percent over 2007.

The number of farmers is determined by the “farm operators” identified. The Census of Agriculture identifies the “principal operator” of the farm, defined as the “person primarily responsible for the day-to-day operation of the farm,” but also identifies any second or third farm operators who are also involved in the day-to-day decision making on the farm. These categories combine to reveal the reported number of “farmers.”

The number of principal farm operators declined by 4.3 percent from 2007 to 2012. Seventy-eight percent of principal operators had been on their current farm for at least 10 years. Almost 80 percent of principal operators lived on their farm, but 70 percent indicated that less than 25 percent of their household income came from farming. Just over 52 percent had a primary occupation other than farming, but most worked some days off the farm. The decline in the number of farmers is consistent with the movement toward larger farms. A separate concern is raised, however, by the aging of the farmer population. The 2012 Census revealed a continuation of the long term trend of the aging of farm operators. The average age of the principal farm operator is now 58.3 years. The average age has increased roughly one year in each census cycle for the last 30 years.

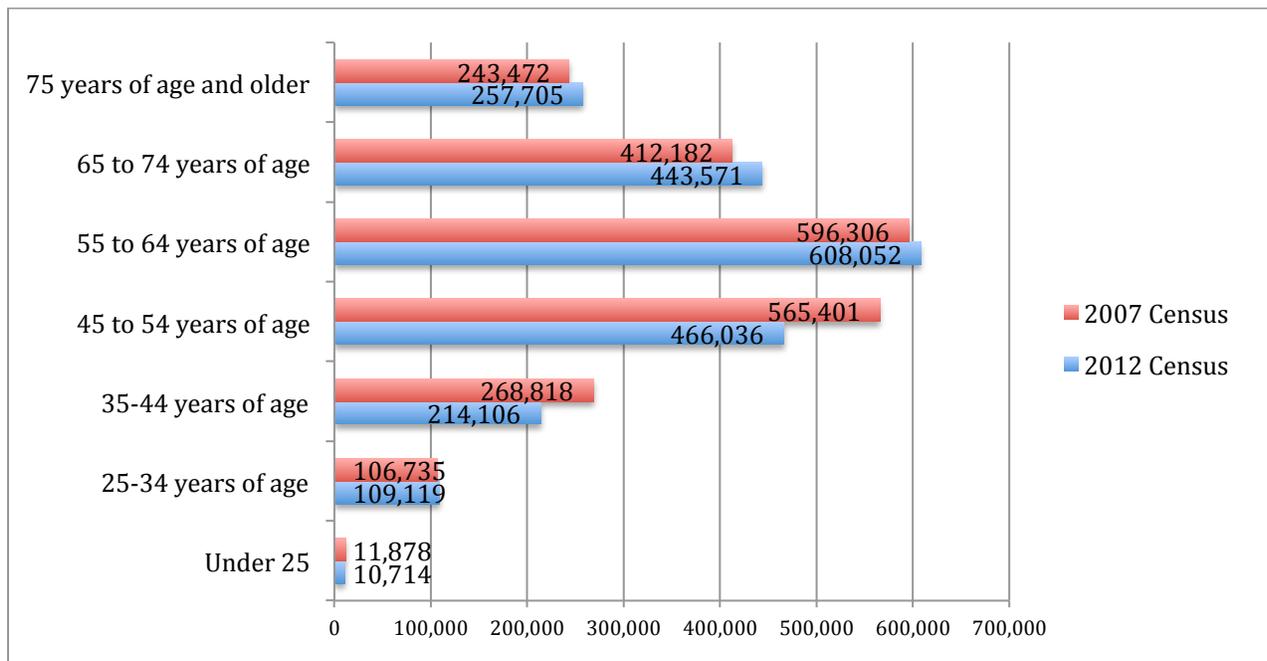
Average Age of Principal Farm Operator



USDA NASS , 2012 Census of Agriculture, *Highlights: Farm Demographics*

These averages reveal a potential concern for the farming profession. Younger farmers decreased in number. Between 2007 and 2012, there was a decrease in each age category of principal operators from age 54 downward, with a statistically significant drop in operators from 45-54 and from 35-44 years of age. In contrast, older farmers increased in number as existing farmers aged. From 2007 to 2012, there was an increase in each of the categories of principal operator at the high end of the age spectrum, with a statistically significant increase in the top age categories, 65 to 74 and 75 years of age and older.

Principal Operators by Age Group: 2007 and 2012



USDA NASS , 2012 Census of Agriculture, *Highlights: Farm Demographics*

Of the 2.1 million farms in the United States, 1.9 million have a white principal operator. The 2007 Census, however, showed that U.S. farm operators were becoming somewhat more diverse. The 2012 Census reports a continuation of this trend. All categories of minority-operated farms increased from 2007 to 2012. Growth has been particularly apparent in the Hispanic community. The number of primary operators of Hispanic origin increased 10 percent between 2002 and 2007 and 21 percent between 2007 and 2012.

These minority-operated farms, however, are overwhelmingly found at the lowest tiers of gross cash farm sales. Except for Asian-run farms, the majority of minority-operated farms had sales of less than \$10,000.

Share of Farms by Sales Class for Minority Operators, 2012

Annual Sales	All Farms	Hispanic	American Indian	Black	Asian
Less than \$10,000	56.6%	68.4%	78.1%	78.9%	43.4%
\$10,000 to \$49,999	18.9%	17.1%	14.3%	15.6%	22.3%
\$50,000 to \$99,999	6.1%	4.5%	2.9%	2.4%	7.5%
\$100,000 or more	18.4%	10%	4.7%	3.1%	26.8%
Total	100%	100%	100%	100%	100%

USDA NASS , 2012 Census of Agriculture, *Highlights: Farm Demographics*

One of the most significant demographic changes in the 2007 Census was the increase in female farm operators. There were 306,209 female principal operators counted in 2007, up from 237,819 in 2002 — an increase of almost 30 percent. The 2012 Census reports a reduction in this number, identifying 288,264 female principal operators. This reflects a 5.9% decline from 2007.

3. Agricultural Production

The value of farm commodity sales continue their positive trend, showing evidence of a strong and economically powerful agricultural sector. In 2007, U.S. farms sold \$297 billion in agricultural products, an increase of 48% above the value of products sold in 2002. In 2012, farm sales again increased, this time by almost 33 percent (an increase of \$97 billion) for total sales of \$394.6 billion. Crop sales increased by almost 48 percent and made up 54 percent of the 2012 sales. Livestock sale values were up almost 19 percent. The value of agricultural sales recorded in 2012 is the highest ever recorded, with both livestock and crop sales significantly exceeding any prior year

a. Type of Product

The value of corn sales increased dramatically, with sales of \$39.9 billion in 2007 and \$67.3 billion in 2012. Soybeans also showed a dramatic increase, rising from \$20.3 to \$38.7 billion in sales. Fruit, tree nuts, and berries showed a more moderate increase, rising from \$18.6 to \$25.9 billion. The fourth category by sales is vegetables, melons and potatoes, which increased from \$14.7 in 2007 to \$16.9 billion in 2012.

The value of sales of cattle and calves also showed a dramatic increase in 2012 over 2007. Sales in 2012 were \$76.4 billion compared to 2007 sales of \$61.2. Note that 2007 sales also reflected a significant gain of 36 percent over the prior census in 2002.

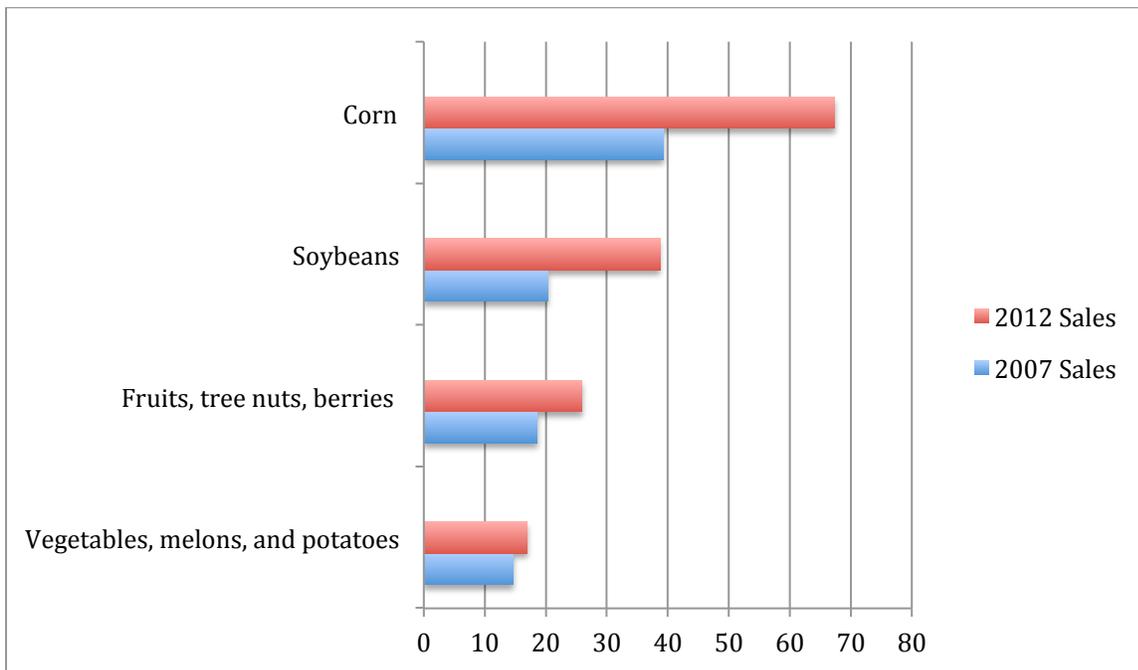
Poultry and eggs sales totaled \$42.8 billion, an increase of 18 percent over 2007 sales. The 2007 sales represented an increase of 55 percent over 2002 sales. However, between 2007 and 2012, the U.S. poultry inventory declined 6 percent for turkeys and for broilers and other meat-type chickens. Inventory increased 4 percent for pullets and remained nearly unchanged for layers. Egg production for 2013 was estimated to be over 13 billion eggs. The American Egg Board reported that there were 306 million commercially raised laying hens in the U.S. at the start of 2015.

Milk sales increased at a slower pace, with sales of \$31.8 billion in 2007 and \$35.5 billion in 2012. Sales in 2007 were up 57 percent over 2002.

Hog and pig sales in 2012 were valued at \$22.5 billion; in 2007 they were \$18.1 billion; and in 2002, they \$12 billion in 2002.

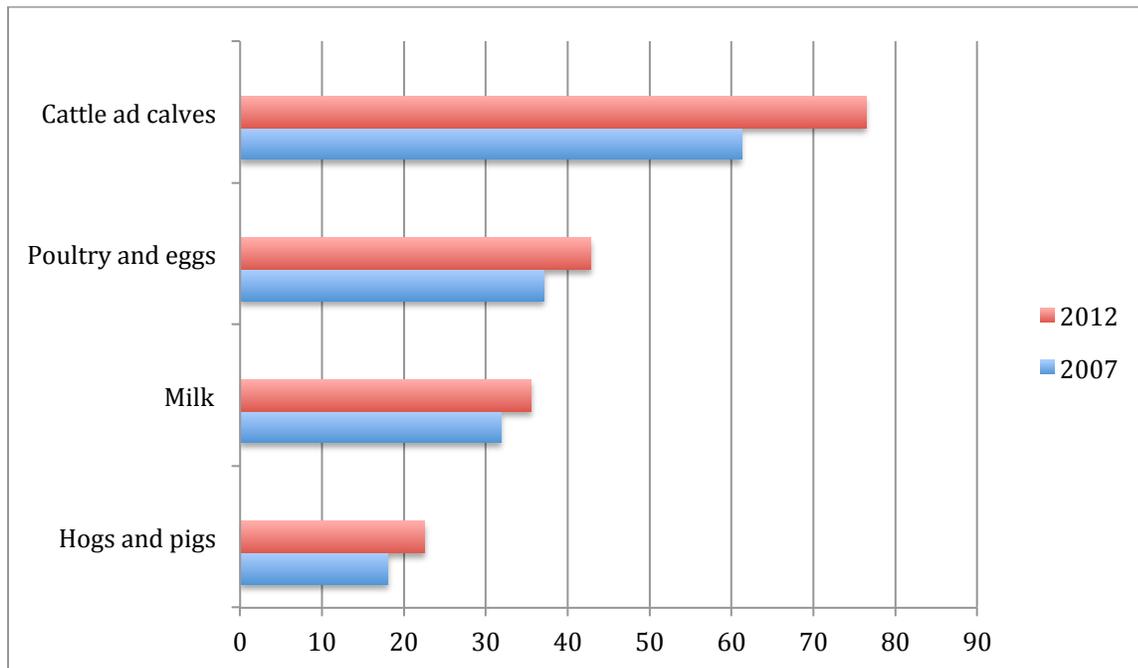
The top five commodities in terms of 2012 sales were cattle and calves, corn, poultry and eggs, soybeans, and milk. Together, these commodities accounted for 66 percent of farm sales, producing \$261 billion in sales.

Top Crop Commodities by 2012 Sales Value, 2007 and 2012 (\$ billions)



Source: USDA NASS, 2012 Census of Agriculture, *Agricultural Economics*

Top Livestock Commodities by 2012 Sales Value, 2007 and 2012
(\$ billions)



Source: USDA NASS, 2012 Census of Agriculture, *Agricultural Economics*

b. Geographic Area

According to the 2012 Ag Census, 13 states produced more than \$10 billion in agricultural products in 2012. These states accounted for 62 percent of U.S. agriculture sales. California alone accounted for \$29 billion in agricultural sales - 7 percent of total U.S. sales. The top ten counties for agricultural production in the U.S. are in California. At the top of the list, Fresno County had \$5 billion in agriculture sales, a value that is higher than 23 individual states.

The importance of California agriculture raises serious concerns about the impact of the drought that is affecting production post-census.

The ongoing drought in California began in 2012. On January 17, 2014, the Governor of California declared a statewide drought emergency. Based on measurements in the U.S. Drought Monitor, as of March 31, 2015, over 97 percent of California’s \$43-billion agricultural sector was experiencing severe, extreme, or exceptional drought, with the livestock sector more directly exposed to exceptional drought than the crop sector. However, in California, measures of exposure to local water shortages are only part of how the drought is affecting farms. California agriculture relies heavily on irrigation, and much of the irrigation water is supplied by large-scale State and Federal water projects that store and transport water across hundreds of miles. Therefore, the degree of drought exposure based on local weather does not fully capture the potential impacts. Many other factors, such as surface water availability, groundwater availability, irrigation technology choice, crop insurance enrollment, livestock feed availability, and water rights, influence the vulnerability of farms to ongoing drought.

California Drought: Farm and Food Impacts, USDA, ERS website, linked on

www.FoodFarmingSustainability.com. There is always lag time between harvest and economic analysis, and the California drought represents an ongoing development. Readers are directed to the this website for current information.

Cattle production is concentrated primarily in five states — Nebraska, Texas, South Dakota, Kansas, and Oklahoma; these states accounted for 43 percent of the total value of U.S. sales of cattle and calves. However, there are individual counties with high concentrations - six of the top ten U.S. counties for cattle inventory were in Florida, Oregon, and Montana - states that were not included in the top five state figures. Note, however, that the 2012 Ag Census acknowledges that data from some counties was withheld to avoid disclosing individual ownership data.

Six states accounted for 53 percent of poultry and egg sales - North Carolina, Georgia, Arkansas, Alabama, Mississippi, and Texas, each with over \$2 billion in annual sales. There is, however, a significant geographic distinction between poultry and egg production.

Three southeastern states lead the nation in broiler production —Georgia, with 14.7 percent of U.S. broilers, Arkansas, with 12.6 percent, and Alabama, with 11.1 percent.

Egg production is also regionally concentrated, but in different states. Five states—Iowa, Ohio, Indiana, Pennsylvania, and Texas —represent approximately 51 percent of all U.S. egg production.

According to the 2012 Ag Census, dairy production is reported in all states, but California and Wisconsin produce one-third of U.S. milk sales. Seventy-five percent of the value of total U.S. milk sales come from the top ten producing states – California, Wisconsin, New York, Idaho, Pennsylvania, Texas, Minnesota, Michigan, New Mexico, and Washington. California led the nation in the number of dairy cows at the end of 2012 – 1.8 million. Wisconsin was second with 1.3 million cows.

Fifty-five percent of the value of U.S. hog and pig sales and fifty-six percent of the hog inventory at the end of 2012 is attributed to the states of Iowa, North Carolina, and Minnesota. Duplin County in North Carolina was responsible for 3 percent of the total value of U.S. sales.

It would be hard to overstate the importance of California agriculture to specialty crop production. Ag Census data for 2012 reveal that California is the leading state in the sale of fruits, tree nuts and berries and the third ranking state in vegetables, melons, potatoes and sweet potatoes. USDA ERS estimates that this reflects approximately 60 percent of the total U.S. fruit and tree nut farm value and 51 percent of vegetable farm value. Twenty-two percent of all U.S. farms growing fruit, berries, tree nuts, and/or vegetables are in California; this represents 43 percent of the farm acreage devoted to these crops.

- Most of this acreage is under irrigation—specifically, 98 percent of the State’s land in orchards, 100 percent of the land in berries, and 100 percent of the land planted to vegetables.
- California grows an overwhelming majority of the Nation’s grapes, strawberries, peaches, nectarines, avocados, raspberries, kiwifruit, olives, dates, and figs.
- California’s tree nut production is the Nation’s largest, supplying virtually all U.S. almonds, walnuts, and pistachios.
- California ranks second to Florida in citrus production but is the major supplier of citrus fruit for the fresh market. A vast majority of citrus acreage in the State is devoted to oranges. California also produces over 90 percent of U.S. lemons and more than 50 percent of U.S. tangerines.

California Drought 2014: Crop Sectors, USDA, ERS website, linked on www.FoodFarmingSustainability.com.

Again, the drought in California is likely impact these results going forward, prompting many to increase the call for the redevelopment of regional food hubs.

Direct farm sales to consumers through farmers' markets, roadside stands, pick-your-own operations, and related ventures have increased significantly throughout the country, representing an increased focus on local production. However, in 2012, these sales amounted to only .3 percent of total agricultural sales. Farms with direct sales to groceries and restaurants with an interest in the delivery of "local food" are reported to have sold an estimated \$6.1 billion in 2012, but this is only a USDA estimate. These sales are not well reported in the Census of Agriculture.

c. Size of Farm and Concentration

U.S. agricultural production has become more concentrated over time, with a smaller number of larger farms producing most of the value. This is a continuation of a longstanding trend. In 2002, farms with more than \$1 million in sales produced 47 percent of all production; in 2007, they produced 59 percent of U.S. agricultural sales. In 2012, farms with more than \$1 million in sales produced 66 percent of total farm sales. In 2012, farms with agricultural sales of more than \$5 million produced 32 percent of the total value.

In U.S. crop production, large farms now dominate. A 2013 USDA ERS report relying on pre-2012 Census data reported that while most cropland was operated by farms with less than 600 crop acres in the early 1980s, current cropland production is on farms with at least 1,100 acres, with many farms 5 and 10 times that size. The report revealed that "[m]idpoint acreages increased in 45 of 50 States and more than doubled in 16. The largest increases occurred in a contiguous group of 12 Corn Belt and Northern Plains States. Midpoint acreages more than doubled in each of 5 major field crops (corn, cotton, rice, soybeans, and wheat) and increased in 35 of 39 fruit and vegetable crops, where the average increase was 107 percent."

Cropland has been shifting to larger farms. The shifts have been large, centered on a doubling of farm size over 20-25 years, and they have been ubiquitous across States and commodities. But the shifts have also been complex, with land and production shifting primarily from mid-size commercial farming operations to larger farms, while the count of very small farms increases. Larger crop farms still realize better financial returns, on average, and they are able to make more intensive use of their labor and capital resources, indicating that the trends are likely to continue.

James M. MacDonald, Penni Korb, and Robert A. Hoppe, *Farm Size and the Organization of U.S. Crop Farming*, USDA, ERS, Rpt. No. 152 (Aug. 2013) (available on www.FoodFarmingSustainability.com). Increasing farm size generally has an adverse impact on rural communities and raises barriers to entry for beginning farmers, a particular concern given the aging of farm operators.

Concentration is apparent in each sector of production, but to different degrees. It is particularly apparent in the livestock and poultry industries. Looking specifically at cattle production, most cattle are initially raised on farms and ranches that remain relatively dispersed, but then they are sent to feedlots for "finishing," i.e. fed high-energy rations for growth and weight gain before slaughter. Feedlots with capacity for 1,000 head or more now market between 80-90 percent of cattle; feedlots with capacity for 32,000 head or more sell approximately 40 percent, with the largest feedlots feeding 100,000 cattle at a time.

While U.S. sales of poultry and eggs showed a 15 percent increase from 2007 to 2012, the number of farms with poultry and egg sales decreased by 8 percent. Large, specialized farms accounted for 98 percent (\$42.0 billion) of sales in 2012. While there are an increasing number of independent growers raising poultry for themselves and for sale, contract growers raising poultry for a processor represent the dominant model of production. For example, in 2012, contract production accounted for 48 percent of broiler farms but 96 percent of broiler production. Few commercial growers produce less than 100,000 broilers in a year.

Contract production continues to shift to larger operations, from a production locus of 300,000 broilers in 1987 to 520,000 in 2002 and 600,000 by 2006.

The egg industry has also become very concentrated. According to the American Egg Board, there are 182 companies which own flocks of 75,000 laying hens or more and these flocks represent about 99 percent of all the laying hens in the U.S. There 63 egg producing companies with flocks of more than 1 million hens, resulting in approximately 87 percent of total egg production. Seventeen companies of these companies each have greater than 5 million hens. American Egg Board, *Industry Overview* webpage (June 23, 2015), linked on www.FoodFarmingSustainability.com.

In the dairy sector, concentration is also evident. In 2002, the largest 24 percent of dairy farms produced 74 percent of the total value of sales of dairy products. In 2007, these large farms produced 81 percent of dairy products. Of the \$31.8 billion in dairy sales in 2007, over \$13 billion of it came from dairies with a herd size of over 1,000 cows. Data from the 2012 Agricultural Census shows an 8 percent decline in the number of dairy farms.

The hog sector continues the trend toward more specialization and concentration. The 2007 reported a 9 percent decline in the number of hog farms since 2002, while production and sales increased 46 percent. This trend continues. In 2012, sales were up 25 percent, but the number of farms that specialized in hog production was down 29 percent. More hogs are now raised on fewer, larger, more specialized farms.

4. Farm Income and Expenses

The Census of Agriculture reports on farm income from a variety of sources. Included are farm sales, government farm program payments, and earnings from a variety of farm-related sources including crop insurance. Gross cash farm income reflects the total of these sources. Total gross farm income was up significantly from 2007 to 2012, with an industry total of \$421 billion.

As farm sale values have risen, so have farm production expenses. In 2007, production expenses for all farms totaled \$241 billion, a 39 percent increase over 2002. In 2007, the greatest increase (averaged for all farms) was for gasoline and other fuels, up 93 percent. Fertilizer costs rose 86 percent. Seed and feed costs both rose 55 percent. The 2012 Census data reveals another significant increase in expenses between 2007 and 2012, with overall average production costs up 36 percent in 2012. The cost of seeds was the greatest increase, a 66 percent increase over 2007 expenses. The increases are reflected in the table below.

Increase in Average Agricultural Production Expenses, 2007 to 2012

Expense Category	Percentage Increase
Feed	54.2
Livestock & Poultry Purchases	9.4
Fertilizer	57.6
Hired Labor	23.4
Cash Rent	58.2
Seeds	66.0
Supplies & Repairs	18.7
Gasoline, fuels, oils	28.4
Chemicals	63.4
Other	27.1
TOTAL AVERAGE	36.4

Source: USDA NASS, 2012 Census of Agriculture, *Farm Economics*

Net cash farm income reflects gross farm income minus farm expenses. Net cash farm income improved 23.7 percent from 2007 to 2012, to \$92.3 billion, a particularly impressive figure given the recession affecting the rest of the country during this time period. Current economic data shows continued improvement through 2014 with a drop anticipated in 2015.

One of the primary difficulties associated with this data, however is that it reflects an industry average. Within the industry, there is a significant range, with many farms showing a negative net cash income, most frequently smaller operations, and others showing strong profits, often the largest, most well-established operations. Households operating smaller farm operations typically support their farming operation through off-farm income.

Government payments to farmers under the Ag Census include conservation payments, direct payments, loan deficiency payments, disaster payments, and payments from various other federal programs. The USDA does not include crop insurance payments in this category, counting them instead as farm-related income. In 2007, a total of approximately \$8 billion was paid to farmers under the federal farm programs. Of the 2.2 million farms in the U.S., 840,000, just 38 percent of farms, received payments.

In 2012, based on programs in effect under the 2008 farm bill, slightly fewer farmers received more farm program income. There were 811,387 farmers who received a total of \$8.1 billion in government payments from federal farm programs. This is 3 percent fewer farmers and a 1 percent increase in payments. The USDA explains that the decrease in the number of farmers was largely due to decreased participation in federal conservation programs. In 2012, farmers enrolled 29 percent fewer acres and received 18 percent less in conservation payments in 2012 than 2007.

Farm-related income includes rental payments, crop and livestock insurance payments, custom work performed on other farms, forest product sales, recreational services provided, patronage dividends, and other income closely related to farming or ranching. For all U.S. farms, farm-related income increased 76 percent between 2007 and 2012. Much of this increase is due to crop insurance payments, which increased more than 300 percent from 2007. The USDA indicates that this was primarily because of a large area affected by drought in 2012.

Predictions going forward anticipate a drop in net cash income as farm prices for many major commodity crops decline markedly. One report predicts net cash income in 2015 at \$89.4 billion, down \$26 billion (-22%) from 2014. Randy Schnepf, *U.S. Farm Income Outlook for 2015*, Cong. Res. Serv. Rept. No. R40152 (Feb. 18, 2015), available on www.FoodFarmingSustainability.com.

For additional information on the farm financial picture, including the breakdown of this information by farm size and structure, see Robert Hoppe, *Structure and Finances of U.S. Farms: Family Farm Report*, 2014 Edition, USDA, ERS, EIB No. 132 (Dec. 2014) available on the USDA ERS website and linked on www.FoodFarmingSustainability.com. For developing economic information, consult the USDA ERS Farm Economy webpage, also linked on www.FoodFarmingSustainability.com.

5. Organic Farming

The USDA NASS did a follow up to the 2007 Census of Agriculture and conducted an in-depth survey of organic farming in the United States, the *2008 Organic Production Survey*. This was the first in-depth survey of organic agriculture performed by the USDA. Data was collected from operators of farms that were either USDA-certified as organic, were making the transition to organic production, or were exempt from USDA certification because of sales totaling less than \$5,000. The survey is available on the USDA NASS website and linked on www.FoodFarmingSustainability.com.

The survey revealed 14,540 organic farms and ranches in the United States, comprising 4.1 million acres of land. Of those farms, 10,903 were USDA-certified and 3,637 were exempt from certification. Total sales were \$3.16 billion — \$1.94 billion in crop sales and \$1.22 billion in sales of livestock, poultry and their products. Organic farms had average annual sales of \$217,675, compared to the \$134,807 average for U.S. farms overall.

Average production expenses are higher on organic farms than on all other farms. The organic farms surveyed incurred production expenses totaling \$2.5 billion. The largest production expense was labor at \$569 million followed by feed purchases at \$480 million.

California reported the most organic farms; almost 20 percent of the total number of organic farms were located there. The states with the highest number of organic farms and the number of certified and exempt organic farms located within the state are: California (2,714); Wisconsin (1,222); Washington (887); New York (887); Oregon (657); Pennsylvania (586); Minnesota (550); Ohio (547); Iowa (518); and, Vermont (467).

The USDA reports that organic product sales increased by 83 percent from 2007 to 2012. The breakdown of this increase should be reflected in the 2015 Survey that is now underway. Results will be made available on the USDA NASS website.

G. Consumer Awareness and Impact

Replace the last two paragraphs of this section/chapter with the following:

A recent article by Neil Hamilton adds to the conversation by considering agricultural law, consumer awareness, and our food system through the lens of agriculture-related legislation enacted during the past thirty years. He classifies the development into four distinct but overlapping eras: the traditional development period, the transitional family farm period, the industrial agriculture "Big Ag" period, and the post-industrial food democracy period, and he examines the role laws play in promoting the goals and values of the periods. His analysis identifies the predictability of legal conflicts between different versions of agriculture, especially during the periods of transition between eras, and identifies several current legal disputes that reflect this process. The article also considers generational differences in attitudes, considering and perspectives of today's agricultural law students and professors in contrast to those in the past. Most approach agricultural law from the perspective of producers rather than consumers. Neil D. Hamilton, *Harvesting the Law: Personal Reflections on Thirty Years of Change in Agricultural Legislation*, 46 CREIGHTON L. REV. 4 (2013) (available on SSRN and on www.FoodFarmingSustainability.com).

Consumers have not typically been involved in either farm policy or food policy. Is this about to change? If so, what might consumers do with their newfound power? What impact will there be on the global food system?

While this book is predominantly focused on U.S. law and policy, there is increased recognition that issues of food and agriculture must be considered on a global scale. The potentially devastating impact of climate change on food production while population continues to increase gives the concept of sustainability added importance.

- The Economist did a Special Issue, *The 9 Billion-people Question*, that includes a series of articles on food production, food waste, and sustainability. It is an excellent source of good classroom discussion. *The 9-Billion People Question*, THE ECONOMIST (Feb. 24, 2011); linked on www.FoodFarmingSustainability.com.
- Bill Gates and the Gates Foundation now considers agriculture as one of its primary areas of focus. The Annual Gates Letter for 2012 stressed the importance of promoting innovation in agriculture, supporting small farm operations in developing countries, and funding additional agricultural research to address problems of disease, productivity and pests. *Letter from Bill Gates, 2012 Annual Bill and Melinda Gates Letter*, Bill and Melinda Gates Foundation website (Jan. 2012); linked on www.FoodFarmingSustainability.com.
- The sustainable production of food world wide is an increasing issue of importance to UN efforts.
 - Olivier De Schutter, *Final Report: The Transformative Potential Of The Right To Food*, Report of the U.N. Special Rapporteur on the right to food, submitted to the Human Rights Council, linked on www.FoodFarmingSustainability.com.
 - Daniele Giovannucci, Sara Scherr, Danielle Nierenberg, Charlotte Hebebrand, Julie Shapiro, Jeffrey Milder, and Keith Wheeler, *Food and Agriculture: The Future of Sustainability*, Sustainable Development in the 21st century (SD21) Project, Div. for Sustainable Development, United Nations Depart. of Economic and Social Affairs, United Nations (2012), linked on www.FoodFarmingSustainability.com.
- For an important new look at the critical challenges facing agriculture and our food system and a discussion of the policies needed to address these challenges, see Nicole Civita, *Resilience: The Food Policy Imperative for a Volatile Future*, 45 ENVTL L. REP. 10,663 (2015).

To sustain a growing population on a changing planet, food policies at all levels — community, regional, national, and global — must promote judicious resource use, prioritize stewardship, align with ecosystems, advance social and distributive justice, consider national security, and position us to weather long- and short-term disruptions, both climate change-driven and otherwise. This Comment considers the power of a profuse human population, reviews climate consequences of the way we have been satisfying our food needs, and demonstrates the exigencies of new approaches to withstand the mounting pressures and disruptions assailing agriculture. It offers resilience as an essential organizing imperative for agrifood systems, policies, and laws. In so doing, the Comment explores the nature and value of resilience, outlines the characteristics of resilient food systems, identifies benefits of orienting our food future around resilience, and suggests preliminary steps in the direction of reforming agrifood policy for resilience.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2628202

This article is available on SSRN and is linked on www.FoodFarmingSustainability.com.

II. Economic Assistance to Agriculture: The Federal Farm Programs, Federal Crop Insurance, and Disaster Assistance

A. The Federal Farm Programs

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Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability.com website, under Resources, [Economic Assistance to Agriculture](#).

II. Economic Assistance to Agriculture: The Federal Farm Programs, Federal Crop Insurance, and Disaster Assistance

A. The Federal Farm Programs

The passage of the 2014 Farm Bill changed many of the farm programs. The following text should replace the description of the 2008 Farm Bill on pages 57-58.

Debates over recent the farm bills have been contentious. The 2002 farm bill had to be extended under a series of temporary extensions to allow time for the House and Senate to resolve their differences. The Food, Conservation, and Energy Act of 2008 was eventually passed over a presidential veto. The most recent, the 2014 Farm Bill, was particularly difficult to enact, and it was only passed after literally after years of debate, the sunset of some farm programs, and the stunning possibility that there could actually be a reversion to the permanent legislation. The 2014 Farm Bill, The Agricultural Act of 2014 (P.L. 113-79), was enacted into law in February 2014.

A brief summary of the major titles of the 2014 Farm Bill is provided below, with more information provided specifically on the federal farm programs in a subsequent section. The current farm program provisions are codified at 7 U.S.C. ch. 113, §§ 8701–8793.

Renée Johnson & Jim Monke
What Is the Farm Bill?
Congressional Research Service Report No. RS22131
July 23, 2014

Title-by-Title Summaries

Following are summaries of the major provisions of each title of the 2014 farm bill. For more detailed information see CRS Report R43076, *The 2014 Farm Bill (P.L. 113-79): Summary and Side-by-Side*, which includes a more detailed summary and also a side-by-side comparison of the provisions in the final 2014 farm bill, compared to previous law/policy and the House- and Senate-passed versions of the farm bill.

Title I: Commodity Programs

Under the enacted 2014 farm bill, farm support for traditional commodity crops—grains, oilseeds, and cotton—is restructured by eliminating direct payments,¹ the counter-cyclical price (CCP) program, and the Average Crop Revenue Election (ACRE) program. Under the 2014 farm bill, producers may choose between the following two programs linked to a decline in either price or revenue (price times crop yield): (1) Price Loss Coverage or PLC, which retains a counter-cyclical price program and makes a farm payment when farm price for a covered crop declines below its “reference price” set in statute; and (2) Agriculture Risk Coverage (ARC), which retains a revenue-based program, [and] is designed to cover a portion of a farmer’s out-of-pocket loss (referred to as “shallow loss”) when crop revenues decline. These farm programs are separate from a producer’s decision to purchase crop insurance. The 2014 farm bill makes significant changes to U.S. dairy policy by eliminating the dairy product price support program, the Milk Income Loss Contract (MILC) program, and export subsidies. These are replaced by a new program, which makes payments to participating dairy producers when the national margin (average farm price of milk minus an average feed cost ration) falls below a producer-selected margin. The farm bill does not change the objective and structure of the U.S. sugar program. The 2014 farm bill also sets a \$125,000 per person cap on the total of PLC, ARC, marketing loan gains, and loan deficiency payments. It also makes changes to the eligibility requirement based on adjusted gross income (AGI), setting a new limit to a single, total AGI limit of \$900,000.

The bill retroactively reauthorizes and funds four programs covering livestock and tree assistance, beginning in FY2012 and continuing without an expiration date. The crop disaster program from the 2008 farm bill (i.e., Supplemental Revenue Assistance, or SURE) was not reauthorized, but elements of it are folded into the new ARC program by allowing producers to protect against farm-level revenue losses. Provisions in other farm bill titles provide disaster benefits to tree fruit producers who suffered crop losses in 2012, and additional coverage levels are authorized under the Noninsured Crop Assistance Program (NAP).

Title II: Conservation

Prior to the 2014 farm bill, the agricultural conservation portfolio included over 20 conservation programs. The bill reduces and consolidates the number of conservation programs, and reduces mandatory funding. It reauthorizes many of the larger existing conservation programs, such as the Conservation Reserve Program (CRP), the Environmental Quality Incentives Program (EQIP), and the Conservation Stewardship Program (CSP), and rolled smaller and similar conservation programs into two new conservation programs—the Agricultural Conservation Easement Program (ACEP) and the Regional Conservation Partnership Program

¹ Since 1996, direct payments have been made to producers and landowners based on historical production of corn, wheat, soybeans, cotton, rice, peanuts, and other “covered” crops. Cotton producers will receive direct payment assistance in crop years 2014 and 2015 as they transition to the STAX insurance product (see Title XI, Crop Insurance).

(RCPP). Previous conservation easement programs, including programs related to wetlands, grasslands, and farmland protection, were repealed and consolidated to create ACEP. ACEP retains most of the program provisions in the previous easement programs by establishing two types of easements: wetland reserve easements that protect and restore wetlands, and agricultural land easements that prevent non-agricultural uses on productive farm or grasslands. Previous programs focused on agricultural water enhancement, and two programs related to the Chesapeake Bay and Great Lakes, among other programs, were repealed and consolidated into the new RCPP. RCPP will use partnership agreements with state and local governments, Indian tribes, farmer cooperatives, and other conservation organizations to leverage federal funding and further conservation on a regional or watershed scale.

The 2014 farm bill also adds the federally funded portion of crop insurance premiums to the list of program benefits that could be lost if a producer is found to produce an agricultural commodity on highly erodible land without implementing an approved conservation plan or qualifying exemption, or converts a wetland to crop production. This prerequisite, referred to as conservation compliance, has existed since the 1985 farm bill and previously affected most USDA farm program benefits, but has excluded crop insurance since 1996.

Title III: Trade

The 2014 farm bill reauthorizes and amends USDA's food aid, export market development, and export credit guarantee programs. The bill reauthorizes all of the international food aid programs, including the largest, Food for Peace Title II [P.L. 480] (emergency and nonemergency food aid), and also amends existing food aid law to place greater emphasis on improving the nutritional quality of food aid products and ensuring that sales of agricultural commodity donations do not disrupt local markets, among other changes. The bill creates a new local and regional purchase program in place of the expired local and regional procurement (LRP) pilot program of the 2008 farm bill and increases the authorized appropriations for the program. The 2014 farm bill also reauthorizes funding for the Commodity Credit Corporation (CCC) Export Credit Guarantee program and three other agricultural export market promotion programs, including the Market Access Program (MAP), which finances promotional activities for both generic and branded U.S. agricultural products, and the Foreign Market Development Program (FMDP), a generic commodity promotion program. It also made changes to the credit guarantee program to comply with the WTO cotton case against the United States won by Brazil, and proposes a plan to reorganize the trade functions of USDA, including establishing an agency position to coordinate sanitary and phytosanitary matters and address agricultural non-tariff trade barriers across agencies.

Title IV: Nutrition

The 2014 farm bill's nutrition title accounts for 80% of the law's forecasted spending. The majority of the law's Nutrition funding and policies pertain to the Supplemental Nutrition Assistance Program (SNAP), which provides benefits redeemable for eligible foods at eligible retailers to eligible, low-income individuals. The bill reauthorizes SNAP and The Emergency Food Assistance Program (TEFAP, the program that provides USDA foods and federal support to emergency feeding organizations such as food banks and food pantries), and other related programs, and is estimated by CBO to reduce related spending.² The bill retains most of the eligibility and benefit calculation rules in SNAP. It does, however, amend how Low-Income Home Energy Assistance Program (LIHEAP) payments are treated in the calculation of SNAP benefits. It includes certain other eligibility disqualifications, including the disqualification of certain offenders from receiving SNAP benefits if they do not comply with the terms of their sentence. The law

² The SNAP provisions alone are estimated to reduce spending by \$8.6 billion over 10 years, while certain other title provisions are estimated to increase spending, which together result in the total estimated reduction of \$8.0 billion.

establishes a number of new policies related to the SNAP Employment and Training (E&T) program, including a pilot project authority and related funding for states to implement and USDA to evaluate work programs for SNAP participants.³ The bill makes changes to SNAP law pertaining to retailer authorization and benefit issuance and redemption, including requiring stores to stock a greater variety of foods and more fresh foods, requiring retailers to pay for their electronic benefit transfer (EBT) machines, and providing additional funding for combatting trafficking (the sale of SNAP benefits). It also includes new federal funding to support organizations that offer bonus incentives for SNAP purchases of fruits and vegetables (called Food Insecurity Nutrition Incentive grants). The bill also increases funding for TEFAP. It also includes other changes to SNAP and related programs, including amendments to the nutrition programs operated by tribes and territories, the Commodity Supplemental Food Program (CSFP), and the distribution of USDA foods to schools.⁴

Title V: Credit

The 2014 farm bill makes relatively minor changes to the permanent statutes for two types of farm lenders: the USDA Farm Service Agency (FSA) and the Farm Credit System (FCS).⁵ It gives USDA discretion to recognize alternative legal entities to qualify for farm loans and allow alternatives to meet a three-year farming experience requirement. It increases the maximum size of down-payment loans, and eliminates term limits on guaranteed operating loans (by removing a maximum number of years that an individual can remain eligible). It increases the percentage of a conservation loan that can be guaranteed, adds another lending priority for beginning farmers, and facilitates loans for the purchase of highly fractionated land in Indian reservations, among other changes.

Title VI: Rural Development

The 2014 farm bill reauthorizes and/or amends rural development loan and grant programs and authorized several new provisions, including rural infrastructure, economic development, and broadband and telecommunications development, among other programs. The bill reauthorizes funding for programs under the Rural Electrification Act of 1936, including the Access to Broadband Telecommunications Services in Rural Areas Program and the Distance Learning and Telemedicine Program, and also reauthorizes the Northern Great Plains Regional Authority and the three regional authorities established in the 2008 farm bill. It also increases funding for several programs, including the Value-Added Agricultural Product Grants, rural development loans and grants, and the Micro-entrepreneur Assistance Program. The bill retains the definition of “rural” and “rural area” under current law for purposes of program eligibility; however, it amends the definition of rural area in the 1949 Housing Act so that areas deemed rural between 2000 and 2010 would retain that designation until USDA receives data from the 2020 decennial census.

The provision further raises the population threshold for eligibility from 25,000 to 35,000. The bill also authorizes USDA to prioritize otherwise eligible applications that support multijurisdictional strategic economic and community development, as well as a new Rural Energy Savings Program, and amends the water and waste water direct and guaranteed loan programs, among other changes to USDA’s rural development programs.

³ The bill does not include changes to broad-based categorical eligibility or a state option to drug test SNAP applicants; these options has been included in House proposals.

⁴ The 2010 child nutrition reauthorization (Healthy, Hunger-Free Kids Act of 2010, P.L. 111-296) had already reauthorized some nutrition programs through FY2015, but P.L. 113-79 included certain related policy changes.

⁵ The Consolidated Farm and Rural Development Act is the permanent statute that authorizes USDA agricultural credit and rural development programs. The Farm Credit Act of 1971, as amended, is the permanent statute that authorizes the Farm Credit System.

Title VII: Research

USDA is authorized under various laws to conduct agricultural research at the federal level, and to provide support for cooperative research, extension, and post-secondary agricultural education programs in the states. The 2014 farm bill reauthorizes funding for these activities through FY2018, subject to annual appropriations, and amends authority so that only competitive grants can be awarded under certain programs. Mandatory spending for the research title is increased for several programs, including the Specialty Crop Research Initiative and the Organic Agricultural Research and Extension Initiative. Also, mandatory funding is continued for the Beginning Farmer and Rancher Development Program. The bill provides mandatory funding to establish the Foundation for Food and Agriculture Research, a nonprofit corporation designed to supplement USDA's basic and applied research activities to solicit and accept private donations to award grants for collaborative public/private partnerships with scientists at USDA and in academia, nonprofits, and the private sector.

Title VIII: Forestry

General forestry legislation is within the jurisdiction of the Agriculture Committees, and past farm bills have included provisions addressing forestry assistance, especially on private lands. The 2014 farm bill generally repeals, reauthorizes, and modifies existing programs and provisions under two main authorities: the Cooperative Forestry Assistance Act (CFAA), as amended, and the Healthy Forests Restoration Act of 2003 (HFRA), as amended. Many federal forestry assistance programs are permanently authorized, and thus do not require reauthorization in the farm bill. However, the 2014 farm bill reauthorizes several other forestry assistance programs through FY2018. It also repeals programs that have expired or have never received appropriations. The bill also includes provisions that address the management of the National Forest System, and also authorizes the designation of treatment areas within the National Forest System that are of deteriorating forest health due to insect or disease infestation, and allows for expedited project planning within those designated areas.

Title IX: Energy

USDA renewable energy programs have been used to incentivize research, development, and adoption of renewable energy projects, including solar, wind, and anaerobic digesters. However, the primary focus of these programs has been to promote U.S. biofuels production and use. Cornstarch-based ethanol dominates the U.S. biofuels industry. Earlier, the 2008 farm bill refocused U.S. biofuels policy initiatives in favor of non-corn feedstocks, especially the development of the cellulosic biofuels industry. The most critical programs to this end are the Bioenergy Program for Advanced Biofuels (pays producers for production of eligible advanced biofuels); the Biorefinery Assistance Program (assists in the development of new and emerging technologies for advanced biofuels); the Biomass Crop Assistance Program, BCAP (assists farmers in developing nontraditional crops for use as feedstocks for the eventual production of cellulosic biofuels); and the Renewable Energy for America Program, REAP (funds a variety of biofuels-related projects). The 2014 farm bill extends most of the renewable energy provisions of the 2008 farm bill through FY2018 with some notable modifications to REAP and BCAP, repeals four provisions, and adds a new reporting requirement.

Title X: Horticulture and Organic Agriculture

The 2014 farm bill reauthorizes many of the existing farm bill provisions supporting farming operations in the specialty crop and certified organic sectors. Many provisions fall into the categories of marketing and promotion; organic certification; data and information collection; pest and disease control; food safety and quality standards; and local foods. The bill adopts nearly all the programs, and in some cases provides for increased funding for several key programs benefitting specialty crop producers. These include the Specialty

Crop Block Grant Program, plant pest and disease programs, USDA's Market News for specialty crops, the Specialty Crop Research Initiative (SCRI), and the Fresh Fruit and Vegetable Program (Snack Program) and Section 32 purchases for fruits and vegetables under the Nutrition title. The final law also reauthorizes most programs benefitting certified organic agriculture producers provisions as well as provisions that expand opportunities for local food systems and also beginning farmers and ranchers.⁶ Provisions affecting the specialty crop and certified organic sectors are not limited to this title, but are contained within several other titles of the farm bill. These include programs in the research, nutrition, and trade titles, among others.

Title XI: Crop Insurance

The crop insurance title enhances the existing federal crop insurance program, which is permanently authorized by the Federal Crop Insurance Act. The federal crop insurance program makes available subsidized crop insurance to producers who purchase a policy to protect against losses in yield, crop revenue, or whole farm revenue. More than 100 crops are insurable. The 2014 farm bill increases funding for crop insurance relative to baseline levels, most of which is for two new insurance products, one for cotton and one for other crops. With cotton not covered by the counter-cyclical price or revenue programs established in Title I, a new crop insurance policy called Stacked Income Protection Plan (STAX) is made available for cotton producers. For other crops, the 2014 farm bill makes available an additional policy called Supplemental Coverage Option (SCO), based on expected county yields or revenue, to cover part of the deductible under the producer's underlying policy (referred to as a farmer's out-of-pocket loss or "shallow loss"). Additional crop insurance changes in the 2014 farm bill are designed to expand or improve crop insurance for other commodities, including specialty crops. Provisions revise the value of crop insurance for organic crops to reflect prices of organic (not conventional) crops. USDA is required to conduct more research on whole farm revenue insurance with higher coverage levels than currently available.

Title XII: Miscellaneous

The miscellaneous title in the 2014 farm bill includes various provisions affecting livestock production,⁷ socially disadvantaged and limited-resource producers; and oil heat efficiency, research, and jobs training, among other provisions. The livestock provisions include animal health-related and also animal welfare provisions, creation of a production and marketing grant program for the sheep industry, and requirements that USDA finalize the rules on catfish inspection and also conduct a study of its country-of-origin labeling (COOL) rule. The farm bill also extends authority for outreach and technical assistance programs for socially disadvantaged farmers and ranchers and adds military veteran farmers and ranchers as a qualifying group. It also creates a research center to develop policy recommendations for socially disadvantaged farmers and ranchers, reauthorizes funding for the USDA Office of Advocacy and Outreach for socially disadvantaged and veteran farmers and ranchers, and includes a provision to increase transparency by automatically providing receipts for service or denial of service. It also creates a military veterans agricultural liaison within USDA to advocate for and to provide information to veterans, and establishes an Office of Tribal Relations to coordinate USDA activities with Native American tribes. Other provisions establish grants for maple syrup producers and trust funds for cotton and wool apparel manufacturers and citrus growers, and also provide technological training for farm workers, as well as provisions related to the Environmental Protection Agency.

⁶ Other provisions supporting local food producers are within the research, nutrition, and rural development titles, among other titles.

⁷ The 2008 farm bill included new livestock-related provisions under a new bill title, and made changes to existing laws governing livestock and poultry marketing and competition. A separate livestock title was not included in the 2014 farm bill.

3. The Price and Income Support Programs Under the 2014 Farm Bill

The 2014 Farm Bill made changes to these programs. The following text should replace the description of the Price and Income Support Programs on pages 64-78.

Federal farm programs, excluding the crop and revenue insurance programs can be divided into categories roughly based on the underlying goal of the program. First, there are programs that provide direct or "fixed" payments based on historical cropping patterns and not linked to the operator's current production. These programs seek to provide consistent income support to program participants. Second, there are programs that provide payments dependent on market prices for enrolled commodities. These programs assist producers when commodity prices are low. These first two categories of programs are considered to be price and income support programs.

In addition, there are conservation programs that pay farmers for undertaking conservation or environmental cleanup actions. These programs and the "green payments" they provide are not included in this chapter's consideration but are discussed in Chapter III, *Agriculture and Environmental Law*.

The federal crop insurance program provides subsidized crop insurance to producers of many crops and some livestock. There are also emergency and disaster relief programs provided previously through frequent ad hoc special legislation, but now also available through a permanent disaster programs. These programs are summarized in the discussion of *Crop Insurance and Disaster Assistance, infra*, sections B and C of this chapter.

There are also a number of special programs tailored to the needs of producers of certain distinctive products. These include the milk support program, the peanut and tobacco buy out programs, the sugar program, and a variety of small specialty programs.

Dennis A. Shields
Farm Commodity Provisions in the 2014 Farm Bill (P.L. 113-79)
Congressional Research Service No. R43448
March 28, 2014

Eligible Commodities

Federal support exists for about two dozen farm commodities representing about one-third of gross farm sales. During FY2005-FY2014, five crops (corn, cotton, wheat, rice, and soybeans) accounted for about 90% of these payments.

- Under the 2014 farm bill, the "covered commodities" are the primary crops eligible for farm support: wheat, oats, and barley (including wheat, oats, and barley used for haying and grazing); corn, grain sorghum, long grain rice, medium grain rice, and pulse crops (dry peas, lentils, small chickpeas, and large chickpeas); soybeans, other oilseeds (including sunflower seed, rapeseed, canola, safflower, flaxseed, mustard seed, crambe, and sesame seed), and peanuts.

In a major departure from all previous farm bills and in response to a trade dispute with Brazil,

upland cotton is no longer a covered crop, with support for that crop now provided by a new crop insurance policy called the Stacked Income Protection Plan (STAX). For additional background, see CRS Report R43336, Status of the WTO Brazil-U.S. Cotton Case.

- “Loan commodities” include all of the “covered commodities” plus upland cotton, extra long staple cotton, wool, mohair, and honey. These commodities are eligible for the marketing loan program only.
- The 2014 farm bill replaces the dairy product price support program and Milk Income Loss Contract (MILC) payments with new dairy programs to (1) protect producer margins (milk prices minus feed costs), and (2) buy excess dairy products to boost demand when margins drop below certain levels.
- Sugar support is indirect through import quotas, price guarantees, and domestic marketing allotments. No direct payments are made to growers and processors. There was no change to the sugar program in the 2014 farm bill. See, CRS Report R42551, *Sugar Provisions of the 2014 Farm Bill (P.L. 113-79)*.

Meats, poultry, fruits, vegetables, nuts, hay, and nursery products (about two-thirds of farm sales) do not receive direct support or payments under the commodity programs of the farm bill. However, livestock and tree fruit producers receive disaster support under Title I of the 2014 farm bill. See CRS Report RS21212, *Agricultural Disaster Assistance*, for a description of disaster programs. Also, under the permanently authorized federal crop insurance program, subsidized crop insurance is available for more than 100 crops, including fruits and vegetables which are not supported by farm programs. Crop insurance is designed primarily to cover losses from natural disasters and within-season price or revenue declines. See, CRS Report R40532, *Federal Crop Insurance: Background*.

Definition of “Farm”

The definition of “farm” used to administer the commodity programs is different from other statistical or perceived definitions of farms. Under Farm Service Agency (FSA) regulations, a “farm” for program payment purposes is one or more tracts of land considered to be a separate operation. 7 C.F.R. § 718.2. Land in a farm does not need to be contiguous; however, all tracts within a farm must have the same operator and the same owner (unless all owners agree to combine multiple tracts into a single FSA farm). Thus, one producer may be operating several “farms” if he/she is renting land from several landlords, or has purchased land in several tracts.

Base Acres

For the purpose of calculating program payments, the term “base acres” is the historical planted acreage on each FSA farm, using a multi-year average from as far back as the 1980s.⁶ Technically, a farm’s base with respect to a covered commodity is the number of acres in effect under the 2008 farm bill (7 U.S.C. §§ 8702, 8751) as of September 30, 2013, subject to any reallocation, adjustment, or reduction under the 2014 farm bill. Base is calculated for each covered commodity and transfers to the new owner when land is sold, making the new landowner eligible for farm programs.

⁶ Base acre provisions since 1981 are described in Edwin Young et al., *Economic Analysis of Base Acre and Payment Yield Designations Under the 2002 U.S. Farm Act*, USDA Economic Research Service, September 2005, pp. 36-41, <http://www.ers.usda.gov/publications/err-economic-research-report/err12.aspx#UzL3jYUq4Vc>.

Because a farmer's actual plantings may differ from farm base acres, program payments may not necessarily align with financial losses associated with market prices or crop revenue. In order to better match program payments with farm risk, the 2014 farm bill provides farmers with a one-time opportunity to update individual crop base acres by reallocating acreage within their current base to match their actual crop mix (plantings) during 2009-2012. Farmers can also choose to not reallocate their base if they expect payments to be maximized under their current base. In the case of cotton, which is no longer a covered commodity, former cotton base acres are renamed "generic base" and added to a producer's base for potential payments if a covered crop is planted on the farm.⁷

"Partially Decoupled" Payments

Payments under the new programs in the 2014 farm bill are made on base acres, not current plantings.⁸ This feature—decoupling payments from current plantings—is intended to better comply with World Trade Organization (WTO) rules on domestic support and to minimize any influence on producer behavior and prevent any subsequent market distortion. The payments are considered "partially decoupled" because the payment amount remains connected to current market prices. In the 2008 farm bill, farm payments were calculated using either base or planted area, depending upon the program. . . .

Eliminated 2008 Farm Bill Programs

Under the enacted 2014 farm bill (P.L. 113-79), farm support for traditional program crops is restructured by eliminating the direct payment (DP) and counter-cyclical payment (CCP) programs, and the Average Crop Revenue Election (ACRE) program. For the 1996 through 2013 crop years, direct payments were made to producers and landowners based on historical production of corn, wheat, soybeans, cotton, rice, peanuts, and other "covered" crops. Direct payments lost political support in recent years because recipients did not need to suffer an income loss in order to receive a payment. Approximately three-fourths of the 10-year, \$47 billion in savings associated with the elimination of current farm programs was used to offset the costs of revising farm programs in Title I of the 2014 farm bill, adding permanent disaster assistance (also in Title I), enhancing the permanently-authorized federal crop insurance program (Title XI), and enhancing the Noninsured Crop Disaster Assistance Program or NAP (Title XII).

Farm Commodity Program Provisions

The farm commodity program provisions in Title I of the 2014 farm bill include three types of support for crop years 2014-2018:

- Price Loss Coverage (PLC) payments, which are triggered when the national average farm price for a covered commodity is below its statutorily-fixed "reference price";
- Agriculture Risk Coverage (ARC) payments, as an alternative to PLC, which are triggered when crop revenue is below its guaranteed level based on a multi-year moving average of historical crop revenue; and

⁷ Specifically, for each crop year, generic base acres are attributed to (i.e. temporarily designated as) base acres to a particular covered commodity base in proportion to that covered crop's share of total plantings of all covered commodities in that year. However, if the total number of acres planted to all covered commodities on the farm does not exceed the generic base acres on the farm, only the amount of acreage actually planted to a covered commodity is eligible for payment.

⁸ The exception is payments associated with generic base acres, whereby current plantings can affect payment acreage.

- Marketing Assistance Loans (MALs) that offer interim financing for the loan commodities (covered crops plus several others as indicated above) and, if prices fall below loan rates set in statute, additional low-price protection, sometimes paid as loan deficiency payments (LDPs).

Farmers with base acres of covered commodities have a one-time irrevocable decision to choose between PLC and “county” ARC (based on a county guarantee) on a commodity-by-commodity basis for each farm. Alternatively, all covered crops on a farm can be enrolled in “individual” ARC, which is based on a farm-level guarantee. (See “Agriculture Risk Coverage (ARC),” below.) If no choice is made, the producer forfeits any payments for the 2014 crop year and the farm is enrolled automatically in PLC for the 2015-2018 crop years. The “optimal” decision depends in part on expected prices through 2018 relative to guarantees in each program.

The PLC and ARC programs are similar conceptually to the 2008 farm bill’s counter-cyclical payment (CCP) program and Average Crop Revenue Election (ACRE) program, respectively. However, compared with the previous programs, they have enhanced levels of protection from low prices (i.e., higher price parameters in PLC) or revenue loss (i.e., county- or farm-level guarantees for ARC rather than state-level in ACRE).

PLC and ARC payments are proportional to base acres, and not planted acres.¹¹ Payments are made with a lag of approximately one year as annual price and yield data are compiled for USDA’s calculations. USDA is to issue payments beginning October 1 after the end of each marketing year, which varies by crop. For example, the marketing year for corn harvested in fall of 2014 ends in August 2015.

Marketing assistance loans are available for covered crops and other loan commodities. The program continues mostly unchanged from the 2008 farm bill, with loan rates set at relatively low levels compared to historical prices.

All three types of payments are subject to a combined payment limit of \$125,000 per person. Also, the income limit for program eligibility is \$900,000 for adjusted gross income (three-year average). See “Payment Limits” and “Adjusted Gross Income (AGI) Limit,” below.

Price Loss Coverage (PLC)

For each covered commodity on a farm, producers may select the Price Loss Coverage (PLC) program to receive a payment on 85% of base acres when the annual national average farm price is below the reference price set in statute. This option could be attractive if farmers expect farm prices to drop below statutory minimums.

Payments are proportional to a farm’s base acres, historical farm yield, and the difference between the reference price and the annual farm price. Hence payments are generally “decoupled” from planted acreage and actual yield but not price. PLC payments operate the same as CCPs under the 2008 farm bill, which have been reported to the WTO by the United States as “amber box” subsidies, and thus limited in size together with other amber box subsidies.

Commodity groups successfully argued for an increase in reference prices relative to the payment trigger levels in the 2008 farm bill (i.e., target price minus direct payment rate). For example, the payment trigger level has been raised by 51% for wheat, 57% for corn, 51% for soybeans, 72% for rice (98% for temperate

¹¹ The exception is payments on “generic” base acres (formerly cotton base acres), which are directly attributable to the planted crop(s) until the total of the covered commodities planted on the farm exceed the generic base. If covered crop plantings are greater than the generic base, payment acres are attributed based on the proportion of the covered commodities planted.

Japonica rice), and 17% for peanuts. . . .

The PLC payment formula is 85% times the number of base acres times historical payment yield times the difference between the reference price and the annual farm price (or loan rate if higher). . . . The historical payment yield is equal to 90% of the 2008-2012 average yield per planted acre for the farm. As an alternative, the producer can keep the program yield used for calculating CCPs in the 2008 farm bill (generally based on 1998-2001 yields).

Agriculture Risk Coverage (ARC)

Producers more concerned about declines in crop revenue (i.e., yield times price) than just price can select the county Agriculture Risk Coverage (ARC) program as an alternative to PLC for each covered commodity. Payments are made on 85% of base acres when annual crop revenue is less than 86% of its historical level.

If farmers prefer individual farm level protection, they must enroll all covered crops on the farm in the ARC-individual coverage option instead of selecting between PLC and county ARC for each crop.

County ARC

For producers choosing between ARC and PLC on each covered commodity on a farm, the county ARC program has a county revenue guarantee, and only a crop revenue loss at the county level triggers a payment. For ARC county coverage, payments are made on 85% of base acres when actual county crop revenue drops below the county revenue guarantee, which is 86% of historical or “benchmark” revenue. The benchmark revenue per acre is equal to the average historical county yield for the most recent 5 crop years (excluding the years with the highest and lowest yields, or “Olympic average”) times the national average market price received by producers during the 12-month marketing year for the most recent 5 crop years (excluding the years with the highest and lowest prices). With the guarantee set at 86%, the producer absorbs the first 14% of the shortfall, and the government absorbs the next 10% of revenue shortfall. (The per-acre payment rate is capped at 10% of benchmark revenue.) Remaining losses are backstopped by crop insurance if purchased at sufficient coverage levels by the producer and by the marketing assistance loan program.

The county ARC payment formula is 85% times the number of base acres times the difference between the county revenue guarantee and the actual crop revenue. See Figure 3 for a graphical interpretation of the formula and Figure 4 for a hypothetical example for corn.

Individual ARC

Farm level protection is provided if producers enroll all covered crops on the farm in the ARC- individual coverage option, which uses individual farm yields for each covered crop (which are more variable than county averages) and aggregates all crop revenue into a single, whole-farm guarantee. Individual coverage was not available for ACRE in the 2008 farm bill; farm-level coverage was provided instead by the Supplemental Revenue Assistance (SURE) disaster program (not reauthorized under the 2014 farm bill).

The individual ARC payment formula is 65% times the number of total base acres for the farm times the difference between the revenue guarantee and the actual crop revenue. The calculation for the guarantee and actual revenue are based on the aggregation of all covered crops on the farm using individual farm yields instead of county yields.¹²

¹² For a description of the calculations, see 2014 farm bill Section 1117(b)(2) and Section 1117(c)(3) in the Appendix. An example of ARC-individual coverage is available in Jonathan Coppess, “Farm Bill Programs in the 2014 Farm Bill,” Farmdoc Webinar, March 5, 2014, <http://www.farmdoc.illinois.edu/webinars>.

Marketing Assistance Loan Program

The Marketing Assistance Loan (MAL) program provides additional financial benefits to farmers in the form of a guaranteed floor price for qualifying field crops, in addition to providing short-term financing. The process begins with a government loan to participating farmers of designated crops (covered commodities, plus upland cotton, extra long staple cotton, wool, mohair, and honey). The loan is made at a specified “per-unit” loan rate using the crop as collateral. This loan rate, in effect, establishes a price guarantee. Prior to loan maturity, if the local market price (called the “posted price”) is at or above the loan rate, the farmer repays the loan principal and interest.¹³ In contrast, when the posted price is below the loan rate, the farmer may repay the loan at that price (called the “loan repayment rate”) and pocket the difference as a “marketing loan gain.”¹⁴ Or, rather than taking the loan when the posted price is below the loan rate, farmers may request a “loan deficiency payment,” with the payment rate equal to the difference between the loan rate and the loan repayment rate.

Program benefits are available on the entire crop produced, which means a farmer receives no benefits in the event of a crop loss. This is in contrast to the other two programs (PLC and ARC) that make payments on historical acres and yields and therefore are not dependent on current production.

In the 2014 farm bill, for 2014-2018 crop years, loan rates remain the same as prior law except for upland cotton. The loan rate for upland cotton is changed from \$0.52 per lb. to the simple average of the adjusted prevailing world price for the two immediately preceding marketing years, but not less than \$0.45 per pound or more than \$0.52 per pound.

Given recent relatively high price levels, the MAL program has paid only limited benefits in recent years for most crops. As a result, some farmers have criticized loan rates as being too low relative to prevailing market prices. MAL program benefits, combined with payments under PLC and ARC, are subject to a payment limit of \$125,000 per person for all covered commodities (except peanuts, which has a separate limit of \$125,000). Benefits derived from loan forfeitures are exempt from the limit. The 2008 farm bill did not have a payment limit for MAL.

Cotton Not Eligible for Either PLC or ARC

Beginning with the 2014 farm bill, cotton is no longer a covered commodity and not eligible for PLC/ARC payments. Instead it is eligible for a new crop insurance policy called Stacked Income Protection or STAX. Cotton remains eligible for MAL but the loan rate was altered slightly as specified above. The policy revision was sought by U.S. cotton producers in an attempt to resolve a long-running trade dispute with Brazil that requires changing the U.S. cotton support program so it does not distort international markets.¹⁵ As part of the transition, farm payments are made for upland cotton for the 2014 crop year, and for 2015 if STAX is not available. Payment acres in 2014 equal 60% of 2013 cotton base acres and 36.5% of 2013 cotton base acres in 2015.

¹³ The market price is the adjusted world market price for upland cotton and rice, the national posted price for peanuts, national or regional posted prices for pulse crops, and the posted county price for most other commodities.

¹⁴ Farmers may also forfeit the crop pledged as collateral to the government at the end of the loan period. This type of loan is called nonrecourse. A few crops are eligible only for recourse loans (i.e., must be repaid at principal plus interest), including ELS cotton, seed cotton, and high-moisture grains. Recourse loans are not eligible for a subsidy but do offer low-interest financing.

¹⁵ See CRS Report R43336, *Status of the WTO Brazil-U.S. Cotton Case*.

Separately, the 2014 farm bill specifies that upon resolution of the trade dispute, funds paid by the U.S. government to Brazil (as part of an agreement made in 2010) may be used for research conducted collaboratively between Brazil and USDA research agencies or with a college, university, or research foundation located in the United States. Among several provisions, the agreement required annual payments of \$147.3 million from the United States (via the Commodity Credit Corporation, CCC) to Brazil in order to provide technical assistance and capacity-building for Brazil's cotton sector, but it explicitly excluded funding research.

Planting Fruits and Vegetables on Base Acres

Any crop may be planted without effect on base acres. However, payment acres on a farm are reduced in any crop year in which fruits, vegetables (other than mung beans and pulse crops), or wild rice have been planted on more than 15% of base acres (or 35% in the case of the individual coverage option for ARC). The reduction to payment acres is one-for-one for every acre in excess of these percentages. This allows a limited amount of fruits and vegetables without penalty.

Unlike in the past when the reduction in payment acres began at the first acre of fruits and vegetables on base acres, the 2014 farm bill allows 15% (or 35% for individual ARC) of base acres to be planted to fruits and vegetables before the reduction in payment acres begins. . . .

Interaction with Federal Crop Insurance

Federal crop insurance intersects with farm programs when producers choose between the Agriculture Risk Coverage (ARC) and the Price Loss Coverage (PLC) programs. The ARC program is a "shallow loss" program that makes a payment when actual crop revenue is more than 14% below the ARC guarantee. For producers who select the PLC, "shallow loss" coverage is available by purchasing a new crop insurance product called Supplemental Coverage Option (SCO) authorized in Title XI of the 2014 farm bill. SCO is designed to cover part of the deductible on a producer's underlying crop insurance policy. SCO is not available for those enrolled in ARC.

Notes

1. As indicated, most farmers who wish to participate in the federal farm programs are required to choose between PLC and ARC options, and within ARC between the county and individual options. This will lock in their program benefits for the term of this Farm Bill. The best way to understand these programs is to go to the many available websites that were set up to educate farmers on the programs and assist with the decision making. Most have explanatory documents, webinars, video presentations, and worksheets for calculations. For example:

- University of Illinois at Urbana-Champaign, *Farmdoc Farm Bill Toolkit*
- University of Minnesota Extension, 2014 Farmbill ARC/PLC Strategies
- University of Missouri, *Agricultural Markets and Policy* website
- Texas A&M, Agricultural & Food Policy Center, 2014 Farm Bill - Farm Program and Insurance Decision Aid.

Links are provided on www.FoodFarmingSustainability.com.

2. Like the other covered commodities, the 2014 Farm Bill provides for marketing assistance loans for farm- or warehouse-stored peanuts and peanut loan deficiency payments (LDPs). Depending on their production history, peanut producers can reallocate their base acres, update their program yields, and elect to participate in either the PLC or ARC program. Generally, the farm bill is very favorable for peanut farmers. Most peanut producers are electing the PLC program because of its high, \$535 reference price. Also, peanut producers in cotton growing states may plant peanuts on generic base acres (the old cotton base) and thus increase their PLC peanut payments. Peanuts have a separate \$125,000 payment limit. Some farm program experts worry that the provisions are so favorable that over production may result in a “peanut apocalypse” of depressed prices. Chris Adams, *Peanut Growers Worry About Unintended Impact Of Farm Bill*, MCCLATCHY DC, Washington Bureau (June 5, 2014) (quoting Georgia agricultural law attorney, Allen Olson), linked on www.FoodFarmingSustainability.com.

3. For those overwhelmed with the complexity of the farm programs as described, the USDA Farm Service Agency website has helpful fact sheets available for each program.

4. A recent GAO Report is helpful in demonstrating some of the difficulties with the implementation of the vast and complex farm programs authorized by Congress.

- Statement for the Record by Lisa Shames, *U.S. Department of Agriculture: More Effective Management and Performance Can Help Implementation of the Farm Bill*, GAO-11-779T, (June 23, 2011), linked on www.FoodFarmingSustainability.com.

5. The USDA has an excellent Disaster and Drought Assistance website set up that discusses the current state of the drought, links to a variety of resources, including the Drought Monitor. It is linked on www.FoodFarmingSustainability.com.

6. Information about U.S. sugar and sweetener production, government programs, exports, and other information is found on the USDA ERS Sugar & Sweeteners webpage, linked on www.FoodFarmingSustainability.com. As noted, the Farm Bill did not change any aspect of the sugar program, despite a surprise cost to the US Treasury of \$259 million in 2013. It is designed as a “no cost program” that provides loans to co-ops and processors that are used to buy farmers’ crops. It also places quotas on imports from many countries. The program only costs the government if the price of sugar falls to the point where the crop is forfeited to repay the loan. That happened in 2013. In an attempt to raise the price, the USDA also purchased sugar for ethanol production.

4. Economic Analysis and the Payment Limitations Debate

Who is eligible to receive farm program payments and how much any one entity can receive continue to be controversial issues. The 2014 Farm Bill made changes to these rules, building on the limitations set forth in the 2008 Farm Bill. The following information explains the changes and should be added into the text on page 87, prior to the *Notes* section.

The report excerpted below describes the eligibility and payment limitations provisions included in the 2014 Farm Bill.

Dennis A. Shields
Farm Commodity Provisions in the 2014 Farm Bill (P.L. 113-79)
Congressional Research Service Rep. No. R43448
March 28, 2014

Eligible Producers

The 2014 farm bill defines a producer (for purposes of farm program benefits) as an owner- operator, landlord, tenant, or sharecropper that shares in the risk of producing a crop and is entitled to a share of the crop produced on the farm. For payment eligibility, a term commonly used in federal regulations is “actively engaged in farming,” which generally means providing significant contributions of capital (land or equipment) and labor and/or management, and receiving a share of the crop as compensation. The 2014 farm bill requires USDA to write new regulations that define “significant contribution of active personal management.” See “Payment Limits,” below.

Producers do not pay to participate in farm programs. However, an individual must comply with certain conservation and planting flexibility rules. Conservation rules include protecting wetlands, preventing erosion, and controlling weeds. Planting flexibility rules allow crops other than the program crop to be grown, but under the 2014 farm bill, eligible payment acreage is reduced when fruits, vegetables, or wild rice are planted in excess of 15% of base acres (or 35% depending upon a farmer’s program choice discussed below). Also, a producer on a farm may not receive farm program payments if the sum of the base acres on the farm is 10 acres or less.

A farm enterprise usually involves some combination of owned and rented land. Two types of rental arrangements are common: cash rent and share rent. Under cash rental contracts, the tenant pays a fixed cash rent to the landlord. The landlord receives the same rent, bears no risk in production, and thus is not eligible to receive program payments. The tenant bears all of the risk, takes all of the harvest, and receives all of the government subsidy.

Under share rental contracts, the tenant usually supplies most or all of the labor and machinery, while the landlord supplies land and perhaps some machinery or management. Both the landlord and the tenant bear risk in producing a crop and receive a portion of the harvest.⁹ Both are eligible to share in the government subsidy.

Even though tenants might receive all of the government payments under cash rent arrangements, they might not keep all of the benefits if landlords demand higher rent. Economists widely agree that a large portion of government farm payments passes through to landlords, since government payments boost the rental value of land. The amount of total land in farms rented by farm operators has ranged between 34% and 43% of farmland during 1964-2007.¹⁰ . . .

⁹ For example, a typical share rental arrangement in some regions is a two-thirds/one-third split of the crop harvested, with the landlord supplying all of the land and one-third of the cost of certain inputs such as fertilizer. The tenant supplies all of the labor and pays the remaining share of the input costs. Management decisions, such as crop diversification, are usually made jointly.

¹⁰ C. Nickerson et al., *Trends in U.S. Farmland Values and Ownership*, Economic Information Bulletin Number 92, USDA Economic Research Service, February 2012, http://www.ers.usda.gov/media/377487/eib92_2_.pdf.

Payment Limits

The enacted 2014 farm bill sets a \$125,000 per person cap on the total of PLC, ARC, marketing loan gains and loan deficiency payments. The limit applies to the total from all covered commodities except peanuts, with a separate \$125,000 limit for peanuts (for both, limits are doubled with a spouse). This is in contrast to the 2008 farm bill, which had applied limits for each program, specifically \$40,000 per person for direct payments, \$65,000 for counter-cyclical and ACRE payments, and no limit on marketing loan gain or LDPs.

“Actively Engaged”

To be eligible for payments, persons must be “actively engaged” in farming. Actively engaged, in general, is defined as making a significant contribution of (i) capital, equipment or land, and (ii) personal labor or active personal management. Also, profits are to be commensurate with the level of contributions, and contributions must be at risk. Legal entities can be actively engaged if members collectively contribute personal labor or active personal management. Special classes allow landowners to be considered actively engaged if they receive income based on the farm’s operating results, without providing labor or management. Under the 2008 farm bill, spouses were considered actively engaged if the other spouse meets the qualification, allowing payment limits to be doubled.

The 2014 farm bill instructs USDA to write regulations that define “significant contribution of active personal management” to more clearly and objectively implement existing law. The regulation is to apply beginning with the 2015 crop year, and entities made solely of family members are exempt. This final provision differs from earlier Senate-passed and House-passed versions of the 2014 farm bill, which would have deleted “active personal management” and effectively required personal labor in the farming operation. The final 2014 farm bill provision instructs USDA to consider different limits for varying types of farming operations, based on considerations of size, nature, and management requirements of different farming types, changes in the nature of active personal management due to advancements in farming practices, and the impact of this regulation on the long-term viability of farming operations.

Adjusted Gross Income (AGI) Limit

To qualify for any commodity program benefits, recipients must pass an eligibility requirement based on adjusted gross income (AGI) used for federal taxes. The enacted 2014 farm bill establishes the AGI limit as a single, total AGI limit of \$900,000 (using a three-year average). In contrast, the 2008 farm bill had two separate limits—farm and non-farm. The non-farm AGI limit was \$500,000 to qualify for and receive any farm commodity program benefits, Milk Income Loss Contract (MILC) program, noninsured crop assistance (NAP), or disaster payments. The second limit was \$750,000 on farm AGI to receive direct payments.

Some individuals who previously qualified for farm program payments might no longer qualify due to the lower overall limit (\$900,000 compared with the combined 2008 farm bill limits of \$500,000 and \$750,000). However, others might regain eligibility if nonfarm income is high (i.e., between the previous non-farm limit of \$500,000 and the new total limit of \$900,000) and farm income is low enough to prevent total AGI from exceeding the 2014 farm bill AGI limit of \$900,000.

Criticism of the federal farm program payment structure to date has been based on prior farm bills. This criticism has focused on the overall cost of the program, at a time of political concern over budget deficits; eligibility concerns regarding payments made to non-farmers and payments made to wealthy farmers; and payment limitation concerns involving multiple payments made to individuals and farming operations. To what extent these criticisms will have been met by changes to farm programs in the 2014 Farm Bill remains to be seen. The framework for the coming analysis is provided as follows.

Overall Cost. The 2014 farm bill was supposed to dramatically decrease spending on farm programs. The elimination of Direct Payments were touted as part of this decrease. During farm bill negotiations, CBO projected that Direct Payments, if continued, would cost \$41 billion over the next ten years. Discounting this with estimates for the resulting increase in other payments, CBO projected a savings of \$25 billion over the period of 2015-2023. See, CBO, *Eliminate Direct Payments to Agricultural Producers*, Options For Reducing The Deficit: 2014 To 2023, Mandatory Spending Option 4, Function 350 – Agriculture (Nov. 13, 2013) at <https://www.cbo.gov/budget-options/2013/44739>.

At the time of passage, the Congressional Budget Office (CBO) estimated farm commodity and disaster spending under the bill would average \$4.4 billion annually for the 2014-2023 period. This is significantly less than the actual 1990-2013 average of \$10.1 billion per year. Factored into this estimate was not only the elimination of Direct Payments but also projections of relatively strong market prices.

The 2014 farm bill, however, created the new PLC and ARC programs, and it is only very recently that the USDA released the results of this selection.

Nationwide, 96 percent of soybean farms, 91 percent of corn farms, and 66 percent of wheat farms elected ARC-County. Seventy-six percent of all base elected ARC-County. Over 90 percent of long grain rice, medium grain rice, and peanut farms elected PLC. Few farms, regardless of the commodity mix, elected ARC-Individual. Election results can vary significantly across states.

Similarly, the financial costs are difficult to estimate. The ultimate cost of both of these new programs, as well as the Marketing Assistance Loan Program, will be impacted significantly by the market price of covered commodities.

USDA, Farm Service Agency ARC/PLC webpage, linked on www.FoodFarmingSustainability.com.

Market prices and the farm economy will be important to monitor. The March 2015 FAPRI release of its *U.S. Baseline Briefing Book: Projections for Agricultural and Biofuel Markets* (Mar. 2015) and the CBO *Agriculture Baseline Report* (Mar. 9, 2015) fueled farm program critics' concern. See, e.g., Washington Post Editorial Board, *A Costly Farm Bill*, WASH. POST (Mar. 15, 2015). All of these documents are linked on www.FoodFarmingSustainability.com. The Post editorial begins with the caustic analysis, "Remember how backers of the 2014 farm bill promised that it would reform costly and wasteful agriculture subsidies and save taxpayers money? And remember how the critics of the bill said it was basically a scheme to repackage and perpetuate the old system, potentially at a higher cost? Well, it turns out that the critics were right, according to the first comprehensive estimate of the bill's impact." However, readers are cautioned to scrutinize assumptions. Several days after the Washington Post editorial, Politico came out with a more careful analysis of the projected costs of the farm programs and highlighted a flaw in the numbers used to support that Post projections. See, David Rogers, *Too Early To Condemn Farm Bill For High Costs: A Politico Analysis Shows The Total Package Still Bends Farm Aid Downward*, Politico (Mar. 26, 2015) (linked on www.FoodFarmingSustainability.com).

First, for the decade from fiscal year 2015 through 2024, mandatory government spending for agriculture — including conservation and crop insurance programs — is expected to average

substantially less than the average for the prior two decades.

Second, even with the current market turmoil, the cost estimates show a consistent ratio of about 20-to-1 between the relative size of the farm economy — measured in total farm cash receipts — and what government aid is promised.

This is very different from past periods of market turmoil such as the late 1990s. Back then, the same numbers jumped around much more, with ratios of 10-to-1 and even 6-to-1.

The greater consistency goes to the heart of what was the most intriguing gamble of the 2014 farm bill: that government can find some balance between new countercyclical programs in the commodity title and a crop insurance system that has grown significantly from what it used to be.

Each title should respond to price changes but in opposite ways. Commodity subsidies go up when markets fall. At the same time, crop insurance premiums should fall with prices because the crops are valued at a lower rate.

Id. For updates on the overall cost of the farm programs going forward, see websites for the USDA ERS; the CBO, Agriculture Reports; and Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri, linked on www.FoodFarmingSustainability.com.

Eligibility and Payment Limitation Concerns. Similarly, whether the 2014 Farm Bill will meet critic's concerns on eligibility for payments is yet to be determined. On March 26, 2014, The USDA published its proposed rule on "actively engaged in farming." 80 Fed. Reg. 15,916 (Mar. 26, 2015) (linked on www.FoodFarmingSustainability.com).

Critics, including some powerful forces in Congress argued that existing rules allows too many non-farmers to receive payments. As noted, although farmers must be "actively engaged" in farming in order to be eligible for payments, this can be shown through a "significant contribution of active personal management." Congress directed the USDA to write regulations that would clarify and tighten this requirement. The new proposed rules attempts to do so.

This proposed rule would apply a new definition of "significant contribution of active personal management" only to non-family farming operations that are seeking to qualify more than one farm manager. Similar to the existing requirements in 7 CFR 1400.3 for a substantial amount of personal labor, the new definition for a significant contribution of active personal management would require an annual contribution of 500 hours of management, or at least 25 percent of the total management required for that operation. The proposed rule would also add a new, more specific definition for "active personal management" that includes a list of critical management activities that may be used to qualify as a significant contribution.

Payment Limitation and Payment Eligibility; Actively Engaged in Farming, 80 Fed. Reg. 15,916, 15918 (proposed rule to be codified at 7 C.F.R. §§ 1400.601-1400.603) (Mar. 26, 2015). Comments are requested through May 26, 2015. Note that the new rules will only apply to non-family members, per 2014 Farm Bill directives.

As noted, the 2014 Farm Bill also amended AGI limitations for farm program eligibility, providing for a single federal-tax-based 3 year average AGI limit of \$900,000. As of this writing, what impact this will make, and how many producers may be affected is yet to be determined.

Regarding payment limitations, most of the harshest criticisms relate to pre-2008 program planning allowances. The 2008 Farm bill eliminated the three-entity rule and set caps on most payments except for

marketing loan gains and loan deficiency payments (LDPs). The 2014 Farm Bill carries these limitations forward with a \$125,000 limit that now includes marketing loan gains and LDPs. Spouses still allow for doubling of the limit. However, careful planning for business structures on large farming operations can result in hundreds of thousands of dollars in payments. The significance of any change will be evaluated going forward.

5. Support for Specialty Crops

“Specialty crops” are defined as “fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops (including floriculture),” *See, Specialty Crops Competitiveness Act of 2004* (P.L. 108-465, 7 U.S.C. §1621 note), as amended by the *Food, Conservation, and Energy Act of 2008* (2008 Farm Bill, P.L. 110-246).

In 2012, the value of farm-level specialty crop production totaled nearly \$60 billion, representing about one-fourth of the value of U.S. crop production, produced on only occupy only about 3% of U.S. harvested cropland acres. Renée Johnson, *Specialty Crop Provisions in the 2014 Farm Bill* (P.L. 113-79), Cong. Res. Serv. Rep. No. R43632 (July 10, 2014) (available on www.FoodFarmingSustainability.com).

Specialty crops have never been a significant beneficiary of farm bill support. The 2002 Farm Bill included some of the first programs that provided assistance to specialty crop producers, with several pilot programs that have since been made permanent.

The Specialty Crops Competitiveness Act of 2004 (P.L. 108-465), was a separate bill enacted outside of the farm bill, and many of the programs therein were expanded and reauthorized in the 2008 Farm Bill. The 2014 Farm Bill continued this expansion, but specialty crops remain in a very different category than commodity crops.

The scope of [the] support [provided to specialty crop producers] differs from that traditionally employed to support commodity crops. Specifically, individual specialty crop producers do not directly benefit from the same types of federal commodity price and income support programs that benefit producers of commodity crops. Specialty crops are ineligible for these types of direct benefits. In some cases, however, their production may be linked with the major program crops, such as in cases where recipients of direct and counter-cyclical payments can plant crops on their base acres, including certain vegetables for processing.

Unlike programs supporting the production of specific commodity crops, farm bill programs tailored to support specialty crops provide benefits that accrue to all specialty crop producers and generally do not accrue to individual produce growers directly. These types of programs include marketing and promotion programs, crop insurance and disaster assistance, plant pest and disease protections, trade assistance, and research and extension services, among other types of indirect support. The industry also benefits from fruit and vegetable purchases under various food and nutrition programs. In addition, specialty crop producers are also eligible for other types of USDA support that is generally available to all U.S. crop and livestock producers.

Despite the wide range of program support for specialty crops, federal program spending for specialty crops remains a small share of total farm bill spending and remains lower than spending for commodity crops, even when considering both mandatory and discretionary funding levels. Precise estimates of total mandatory and discretionary sources of funding are difficult to measure, given that support for specialty crops is spread across a wide range of USDA programs and not within a price and income support program such as that available for most of the major commodity crops.

Following the 2008 farm bill, an average of approximately \$676 million annually (FY2008-FY2012) in mandatory program funding was authorized to be spent on specialty crops and organic agriculture, mostly through government purchases of fruits and vegetables for domestic nutrition and feeding programs. The 2014 farm bill reauthorized many of the existing farm bill provisions and also increased spending for some programs supporting specialty crops. Total mandatory spending for specialty crops and organic agriculture is expected to be higher and average \$773 million annually (FY2014-FY2018). The 2014 farm bill also authorized another roughly \$302 million in average annual appropriations across certain programs.

Although the 2014 farm bill provided for an increase above current funding levels, total mandatory spending for specialty crops and organic agriculture will still account for a small share of estimated total farm bill spending and will remain well below spending levels for commodity crops. Mandatory spending for the major commodity crops is expected to average about \$4.7 billion per year under the 2014 farm bill (FY2014-FY2018), mostly through direct price and income support. This does not reflect additional higher spending for crop insurance.

Renée Johnson, *Specialty Crop Provisions in the 2014 Farm Bill (P.L. 113-79)*, Cong. Res. Serv. Rep. No. R43632 (July 10, 2014). See also, Renée Johnson, *Fruits, Vegetables, and Other Specialty Crops: Selected Farm Bill and Federal Programs*, Cong. Res. Serv. Rep. No. R42771 (July 11, 2014). These reports are posted on www.FoodFarmingSustainability.com. Organic agriculture and the sale of fruits and vegetables associated with the local food movement are issues discussed, *infra*, Chapter X, *Food and Agriculture*.

B. Federal Crop Insurance

2. Types of Insurance Available to Farmers

Additional Information: to be inserted at the end of this section, on page 99.

Whole Farm Revenue Protection (WFRP)

The Whole-Farm Revenue Protection (WFRP) policy insures revenue of the entire farm rather than an individual crop. The policy is designed for highly diverse farms that are growing a wide range of commodities, including farms selling to local or regional, and farm-identity preserved, markets and growing specialty crops and animals and animal products. The amount of farm revenue that can be protected is the lower of the revenue expected on the current year's farm plan or five-year historic income adjusted for growth. All commodities produced by the farm are covered under WFRP except timber, forest, and forest products, and animals for sport, show or pets. Maximum total coverage per farm is \$8.5 million. WFRP replaces the Adjusted Gross Revenue (AGR) and AGR-Lite pilot programs and provides additional enhancements, such as a range of coverage levels from 50%-85% to fit the needs of more farming and ranching operations; replant coverage for annual crops; the ability to consider market readiness costs as part of the insured revenue and expenses; provisions to adjust the insurance guarantee to better fit expanding operations; and an improved timeline for operations that operate as fiscal year filers.

Dennis A. Shields, *Federal Crop Insurance: Background*, Cong. Res. Serv. Rep. No. R40532 (Jan. 9, 2015). Additional information on WFRP is available on the USDA/RMA website. Both are available on www.FoodFarmingSustainability.com.

C. Disaster Assistance

1. The Non-Insured Disaster Assistance Program (NAP)

The fact sheet excerpted on pages 104-108 has been updated to reflect changes in the 2014 Farm Bill. The updated version is as follows, replacing the one in the text.

The Noninsured Crop Disaster Assistance Program for 2015 and Subsequent Years

USDA Farm Service Agency
2014 Farm Bill Overview
December 2014

Overview

The Noninsured Crop Disaster Assistance Program (NAP), reauthorized by the 2014 Farm Bill and administered by the U.S. Department of Agriculture (USDA) Farm Service Agency (FSA), provides financial assistance to producers of noninsurable crops to protect against natural disasters that result in lower yields or crop losses, or prevents crop planting.

Eligible Producers

An eligible producer is a landowner, tenant or sharecropper who shares in the risk of producing an eligible crop and is entitled to an ownership share of that crop. The 2014 Farm Bill specifies that an individual or entity's average adjusted gross income (AGI) cannot exceed \$900,000 to be eligible for NAP payments.

Eligible Crops

Eligible crops must be commercially produced agricultural commodities for which crop insurance is not available and be any of the following:

- Crops grown for food;
- Crops planted and grown for livestock consumption, such as grain and forage crops, including native forage;
- Crops grown for fiber, such as cotton and flax (except trees);
- Crops grown in a controlled environment, such as mushrooms and floriculture;
- Specialty crops, such as honey and maple sap;
- Sea oats and sea grass;
- Sweet sorghum and biomass sorghum;
- Industrial crops, including crops used in manufacturing or grown as a feedstock for renewable biofuel, renewable electricity, or biobased products;
- Value loss crops, such as aquaculture, Christmas trees, ginseng, ornamental nursery, and turfgrass sod; and
- Seed crops where the propagation stock is produced for sale as seed stock for other eligible NAP crop production.

Producers should contact a crop insurance agent for questions regarding insurability of a crop in their county. For further information on whether a crop is eligible for NAP coverage, producers should contact the FSA county office where their farm records are maintained.

Eligible Causes Of Loss

Eligible causes of loss include the following natural disasters:

- Damaging weather, such as drought, freeze, hail, excessive moisture, excessive wind or hurricanes;
- Adverse natural occurrences, such as earthquake or flood; and
- Conditions related to damaging weather or adverse natural occurrences, such as excessive heat, plant disease, volcanic smog (VOG) or insect infestation.

The natural disaster must occur during the coverage period, before or during harvest, and must directly affect the eligible crop.

Coverage Levels

NAP provides catastrophic level (CAT) coverage based on the amount of loss that exceeds 50 percent of expected production at 55 percent of the average market price for the crop.

The 2014 Farm Bill authorizes additional coverage levels ranging from 50 to 65 percent of production, in 5 percent increments, at 100 percent of the average market price. Additional coverage must be elected by a producer by the application closing date. Producers who elect additional coverage must pay a premium in addition to the service fee. Crops intended for grazing are not eligible for additional coverage.

Applying For Coverage

Eligible producers must apply for coverage using form CCC-471, "Application for Coverage," and pay the applicable service fee at the FSA office where their farm records are maintained. The application and service fee must be filed by the application closing date. Application closing dates vary by crop and are established by the FSA State Committee.

Producers who apply for NAP coverage acknowledge that they have received the NAP Basic Provisions, available at FSA county offices and at www.fsa.usda.gov/nap.

Service Fees And Premiums

For all coverage levels, the NAP service fee is the lesser of \$250 per crop or \$750 per producer per administrative county, not to exceed a total of \$1,875 for a producer with farming interests in multiple counties.

Producers who elect additional coverage must also pay a premium equal to:

- The producer's share of the crop; times
- The number of eligible acres devoted to the crop; times
- The approved yield per acre; times
- The coverage level; times

- The average market price; times
- A 5.25 percent premium fee.

For value loss crops, premiums will be calculated using the maximum dollar value selected by the producer on form CCC-471, “Application for Coverage.”

The maximum premium for a producer is \$6,562.50 (the maximum payment limitation times a 5.25 percent premium fee).

Beginning, limited resource, and traditionally underserved farmers are eligible for a waiver of the service fee and a 50 percent premium reduction when they file form CCC-860, “Socially Disadvantaged, Limited Resource and Beginning Farmer or Rancher Certification.” To be eligible for a service fee waiver or premium reduction, producers must qualify as one of the following:

Beginning farmer – a person who:

- Has not operated a farm or ranch for more than 10 years, and
- Materially and substantially participates in the operation.

For legal entities to be considered a beginning farmer, all members must be related by blood or marriage and must be beginning farmers.

Limited resource farmer – a person or legal entity that:

- Earns no more than \$176,800 in each of the two calendar years that precede the complete taxable year before the program year, to be adjusted upwards in later years for inflation; and
- Has a total household income at or below the national poverty level for a family of four,
- or less than 50 percent of county median household income for both of the previous two years.

Limited resource producer status may be determined using the USDA Limited Resource Farmer and Rancher Online Self Determination Tool located at www.lrfstool.sc.egov.usda.gov. The automated system calculates and displays adjusted gross farm sales per year and the higher of the national poverty level or county median household income.

Socially disadvantaged farmer – these traditionally underserved farmers are a member of a group whose members have been subject to racial, ethnic, or gender prejudice because of their identity as members of a group without regard to their individual qualities. Groups include:

- American Indians or Alaskan Natives;
- Asians or Asian Americans;
- Blacks or African Americans;
- Native Hawaiians or other Pacific Islanders;
- Hispanics; and
- Women.

For legal entities to be considered socially disadvantaged, the majority interest must be held by socially disadvantaged individuals.

Coverage Period

The coverage period for NAP varies depending on the crop.

The coverage period for an annual crop begins the later of:

- 30 days after application for coverage and the applicable service fees have been paid; or
- The date the crop is planted (cannot exceed the final planting date).

The coverage period for an annual crop ends the earlier of the:

- Date the crop harvest is completed;
- Normal harvest date for the crop;
- Date the crop is abandoned; or
- Date the entire crop acreage is destroyed.

The coverage period for a perennial crop, other than a crop intended for forage, begins 30 calendar days after the application closing date and ends the earlier of:

- 10 months from the application closing date;
- The date the crop harvest is completed;
- The normal harvest date for the crop;
- The date the crop is abandoned; or
- The date the entire crop acreage is destroyed.

Contact a local FSA office for information on the coverage periods for perennial forage crops, controlled-environment crops, specialty crops, and value loss crops.

Information Required To Remain Eligible For NAP

To be eligible for NAP assistance, the following crop acreage information must be reported:

- Name of the crop (lettuce, clover, etc.);
- Type and variety (head lettuce, red clover, etc.);
- Location and acreage of the crop (field, sub-field, etc.);
- Share of the crop and the names of other producers with an interest in the crop;
- Type of practice used to grow the crop (irrigated or non-irrigated);
- Date the crop was planted in each field; and
- Intended use of the commodity (fresh, processed, etc.).

Producers should report crop acreage shortly after planting (early in the risk period) to ensure reporting deadlines are not missed and coverage is not lost.

In addition, producers with NAP coverage must provide the following production information:

- The quantity of all harvested production of the crop in which the producer held an interest during the crop year;
- The disposition of the harvested crop, such as whether it is marketable, unmarketable, salvaged or

- used differently than intended; and
- Verifiable or reliable crop production record (when required by FSA).

When those records are required, producers must provide them in a manner that can be easily understood by the FSA county committee. Producers should contact the FSA office where their farm records are maintained for questions regarding acceptable production records.

Failure to report acreage and production information for NAP-covered crops may result in reduced or zero NAP assistance. Be aware that acreage reporting and final planting dates vary by crop and by region. Producers should contact the FSA office where their farm records are maintained for questions regarding local acreage reporting and final planting dates.

For aquaculture, floriculture and ornamental nursery operations, producers must maintain records according to industry standards, including daily crop inventories. Unique reporting requirements apply to beekeepers and producers of Christmas trees, turf-grass sod, maple sap, mushrooms, ginseng, and commercial seed or forage crops. Producers should contact the FSA office where their farm records are maintained regarding these requirements.

Reported Acreage And Production

FSA uses acreage reports to verify the existence of the crop and to record the number of acres covered by the application. The acreage and the production reports are used to calculate the approved yield (expected production for a crop year). The approved yield is an average of a producer's actual production history (APH) for a minimum of four to a maximum of 10 crop years (five years for apples and peaches). To calculate APH, FSA divides a producer's total production by the producer's crop acreage.

A producer's approved yield may be calculated using substantially reduced yield data if the producer does not report production for a crop with NAP coverage, or reports fewer than four years of crop production.

Beginning with the 2015 crop year, FSA has changed the production reporting requirements to avoid penalizing producers for years when they do not participate in NAP and do not report their production. Those producers will no longer receive an assigned yield or zero-credited yield in their actual production history (APH) for that year.

Producers may also request replacement of assigned yields and zero-credited yields in their APH for the 1995 through 2014 crop years with the higher of 65 percent of the current crop yearT-yield or the missing crop year's actual yield.

Providing Notice Of Loss And Applying For Payment

When a crop or planting is affected by a natural disaster, producers with NAP coverage must notify the FSA office where their farm records are maintained and complete Part B (the Notice of Loss portion) of form CCC-576, "Notice of Loss and Application for Payment." This must be completed within 15 calendar days of the earlier of:

- A natural disaster occurrence;
- The final planting date if planting is prevented by a natural disaster;
- The date that damage to the crop or loss of production becomes apparent; or
- The normal harvest date.

Producers of hand-harvested crops and certain perishable crops must notify FSA within 72 hours of when a loss becomes apparent. The crops subject to this requirement will be listed in the NAP Basic Provisions.

To receive NAP benefits, producers must complete form CCC-576, "Notice of Loss and Application for Payment," Parts D, E, F, and G, as applicable, within 60 days of the last day of coverage for the crop year for any NAP covered crop in the unit. The CCC-576 requires acceptable appraisal information. Producers must provide evidence of production and note whether the crop was marketable, unmarketable, salvaged, or used differently than intended.

Defining A NAP Unit

The NAP unit includes all the eligible crop acreage in the county where the producer has a unique crop interest. A unique crop interest is either:

- 100 percent interest; or
- A shared interest with another producer.

Information FSA Uses To Calculate A Payment

The NAP payment is calculated by unit using:

- Crop acreage;
- Approved yield;
- Net production;
- Coverage level elected by the producer;
- An average market price for the commodity established by the FSA state committee; and
- A payment factor reflecting the decreased cost incurred in the production cycle for a crop that is not harvested or prevented from being planted.

For value loss crops with additional coverage, payments will be calculated using the lesser of the field market value of the crop before the disaster or the maximum dollar value for which the producer requested coverage at the time of application.

Payment Limitation

NAP payments received, directly or indirectly, will be attributed to the applicable individual or entity and limited to \$125,000 per crop year, per individual or entity. . .

III. Agriculture and Environmental Law

- A. Agriculture's Environmental Effects
- B. Exceptions for Agricultural Operations under Environmental Laws
- C. Unique Aspects of Environmental Law As Applied to Agriculture
 - 1. **USDA Conservation Programs**
 - a. Compliance Provisions: Sodbuster, Swampbuster, and Conservation Compliance
 - b. Land Retirement Programs
 - c. Working Land Conservation Programs
 - d. The Farmland and Grazing Land Protection Programs
 - 2. **The Regulation of CAFOs**
 - 3. Developing Issues
 - a. Liability for Environmental Harm from CAFOs
 - b. **Air Quality**
 - c. Concerns Regarding Pesticide Impacts
 - d. Sustainability and Conventional Agricultural Practices

Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Agriculture and the Environment](#).

C. Unique Aspects of Environmental Law As Applied to Agriculture

1. USDA Conservation Programs

a. Compliance Provisions: Sodbuster, Swampbuster, and Conservation Compliance

Include the following additional information at the conclusion of the description of Conservation Compliance, prior to the *U.S. v. Dierckman* case on page 166.

The 2014 farm bill added federal crop insurance subsidies to the list of benefits that could be lost, it also created a number of exemptions that treat the loss of crop insurance subsidies separate from other USDA benefits. In the case of highly erodible land conservation, producers are allowed additional time to comply. Wetland conservation, on the other hand, included a number of exemptions that allow producers mitigation and payment options before losing the crop insurance premium subsidy. . . The 2014 farm bill authorized \$10 million in mandatory funding to establish a wetlands mitigation bank for producers to offset wetland conversions and included a grandfather provision that allows producers who converted wetlands before enactment of the 2014 farm bill to retain their crop insurance premium subsidies.

b. Land Retirement Programs

c. Working Land Conservation Programs

The 2014 Farm Bill reorganized the USDA conservation programs and made a variety of changes. Replace the text at pages 176-192 with the following:

b. Land Retirement Programs

Land retirement programs, exemplified by the Conservation Reserve Program, provide farmers with a financial incentive to temporarily remove environmentally sensitive land from production. This type of approach is contrasted with the working lands programs, discussed *infra*, (e.g., the Environmental Quality Incentives Program, EQIP) that allow land to remain in production and provide producers with a financial incentive to adopt a variety of conservation practices. While the land retirement approach has been a hallmark of agricultural conservation policies since 1985, there has been a recent trend toward the working land approach. This trend began in 2002 and has been evidenced in each subsequent farm bill. High land values, high commodity prices, an interest in increased production, and new conservation technologies have precipitated the shift. The 2014 farm bill continued the trend as the percentage of mandatory program funding for land retirement programs has declined relative to the working lands programs.

The most significant land retirement program is the Conservation Reserve Program (CRP). It was established by the Food Security Act of 1985 and was first implemented in 1986. Under the CRP, the USDA offers rental payments and other incentives to farmland owners who agree to convert land from agricultural production to an approved land use that is environmentally beneficial. The program uses contracts with landowners who agree to retire highly erodible and environmentally sensitive cropland and pasture from production for 10–15 years. Enrolled land is planted to grasses, trees, and other approved vegetation, thereby reducing erosion and water pollution and providing other environmental benefits such as wildlife habitat.

The CRP has been well received in the farming community and enthusiastically supported by environmentalists and hunters alike. Approximately 34 million acres were enrolled between 1986 and 1989. Peak enrollment was reached in 2007 with 36.8 million acres enrolled. By 2013, however, only 25.6 million acres were enrolled. The 2014 farm bill reduced the enrollment cap from the previous 32 million acres to 24 million acres in FY2018. Conservation and wildlife groups, express concerns that reduced enrollment impacts critical species' habitat and soil and water quality as CRP acreage is returned to row crop production and active grazing.

The CRP regulations can be found at 7 C.F.R. pt. 1410 (2015), although these regulations may not reflect 2014 Farm Bill changes, referenced below. The USDA Farm Service Agency Conservation Reserve Program website has a significant amount of current information about the program. Farmers bid to enroll their land and the bids are compared using an Environmental Benefits Index (EBI). Those with the highest EBI scores are accepted. However, there are also several focused programs that are not subject to the scored bidding process. These programs address special needs in localized areas or targeted purposes. All land that qualifies for these programs are automatically accepted into the Program.

The 2014 farm bill repealed another land retirement program, the Grassland Reserve Program and incorporated grassland contracts into the CRP. Other farm bill amendments centered on loosening restrictions on land under contract. Permitted uses include emergency harvesting, grazing, and other use of forage acreage, and there is a new allowance for livestock grazing for a beginning farmer or rancher. In some cases, these permitted uses can be maintained without reducing the payment rate. Other approved activities, such as annual or routine grazing, may continue to require a reduction in rental rate. See, H. R. 2642—65, Title II, Subtitle A, Conservation Reserve Program. For a good explanation of the 2014 amendments and an excellent overview of the conservation programs, see Megan Stubbs, *Conservation Provisions in the 2014 Farm Bill (P.L. 113-79)* Cong. Res. Serv. Rep. No. R43504 (Apr. 24, 2014) available on <http://www.FoodFarmingSustainability.com>.

Notes

1. The CRP imposes specific contractual obligations on the farmer during the term of the land retirement, incorporating all relevant statutory and regulatory requirements. *See* 7 C.F.R. §§ 1410.20, 1410.32. If the farmer violates any of these duties, the USDA can terminate the contract and impose penalties. *See* 7 C.F.R. § 1410.52 (2015). For an example of the judicial review of a CRP dispute, see *Payton v. USDA*, 337 F.3d 1163 (10th Cir. 2003). Contract performance, land transfer policies, and landlord/tenant issues have all been the subject of legal controversy. The regulations provide specific guidance and these regulations are incorporated into the CRP contracts. *See*, 7 C.F.R. pt. 1410 (2015). All of the CRP regulations are available on <http://www.FoodFarmingSustainability.com>.

2. Wildlife and environmental organizations support the land retirement programs because of the associated increase in wildlife habitat. Ducks Unlimited, a non-profit organization devoted to wetlands and waterfowl conservation, describes the impact of the CRP on wildlife and habitat as follows:

CRP not only reduces erosion, but also provides habitat for many species of wildlife across the country. It has been especially important where cropland had replaced grassland on marginal soils.

Across the plains states of the central United States, grassland loss continues at alarming rates. A 2013 South Dakota State University study found that more than 1.3 million acres of grassland was converted to cropland across the Northern Great Plains from 2006 to 2011. In the U.S. Prairie Pothole Region (PPR; which includes portions of Iowa, Minnesota, Montana, North Dakota and South Dakota), more than two thirds of the original 90 million acres of native grassland has been converted to other land uses. CRP acres have helped to recapture the wildlife, soil and water quality values of grassland on this landscape, but more grassland restoration through CRP is needed to achieve a level of sustainable wildlife and public benefits.

- CRP is a proven, results-oriented conservation program that has accomplished a variety of positive outcomes for wildlife habitat, air and water quality and reduced soil erosion. Research has shown that putting land into CRP has resulted in measurable ecological and societal benefits across the country, including:
- CRP was responsible for 25.7 million additional ducks produced in the U.S. Prairie Pothole Region during 1992-2003. Waterfowl hunting is a multi-billion dollar annual activity across the country.
- Since 1986, CRP has reduced more than 8 billion tons of soil erosion – the equivalent of approximately 267 million large dump truck loads of dirt.
- In 2010, CRP grass waterways and riparian buffers helped filter 365 million pounds of nitrogen and 72 million pounds of phosphorus from entering our nation's lakes, rivers and streams.
- In 2010, CRP helped capture and store 52 metric tons of carbon dioxide.
- CRP lands also reduce downstream flooding by absorbing and slowly releasing storm water.

The Ducks Unlimited website, *Conservation Reserve Program*, is linked on www.FoodFarmingSustainability.com.

2. Increased crop prices and the associated increase in farmland rental values may diminish the financial draw of the CRP at a time when Congress has also reduced the acreage capacity. Daniel Hellerstein, *Challenges Facing USDA's Conservation Reserve Program*, USDA AMBER WAVES (June 2010).

3. On the 30th anniversary of the CRP, USDA Secretary Vilsack announced the general sign up period for an additional 800,000 acres of highly environmentally sensitive land. Eligible existing program participants with contracts expiring Sept. 30, 2015 are to be granted an option for one-year extensions. The announcement was made during a speech delivered at the Ducks Unlimited National Convention in Milwaukee, Wisconsin.

“For 30 years, the Conservation Reserve Program has supported farmers and ranchers as they continue to be good stewards of land and water. This initiative has helped farmers and ranchers prevent more than 8 billion tons of soil from eroding, reduce nitrogen and phosphorous runoff relative to cropland by 95 and 85 percent respectively, and even sequester 43 million tons of greenhouse gases annually, equal to taking 8 million cars off the road,” said Vilsack. “This has been one of most successful conservation programs in the history of the country, and today’s announcement keeps that momentum moving forward.”

News Release: *Secretary Vilsack Announces Additional 800,000 Acres Dedicated to Conservation Reserve Program for Wildlife Habitat and Wetlands*, USDA, Farm Service Agency (May 29, 2015) (linked on www.FoodFarmingSustainability.com).

4. For additional information on the Conservation Reserve Program, see Megan Stubbs, *Conservation Reserve Program (CRP): Status and Issues*, Cong. Res. Serv. Rep. No. R42783 (Aug. 29, 2014) (linked on www.FoodFarmingSustainability.com).

5. Congress has also authorized a variety of easement programs that provide for more long term protection of farmland than the CRP. Easements allow farmers to receive a government payment for imposing a permanent or long term land-use restriction on their farmland or wetlands, restricting it to farmland or conservation use. Easement programs authorized in the past included the Wetlands Reserve Program (WRP), the Farmland Protection Program (FPP), and the Grassland Reserve Program (GRP). These were repealed in the 2014 Farm Bill, with their functions rolled into a new Agricultural Conservation Easement Program (ACEP) with permanent baseline funding. The ACEP establishes two types of easements: agricultural land easements that limit non-agricultural uses on productive farmland or grass lands, and wetland reserve easements that protect and restore wetlands. General program provisions are similar across both easement types. Priority enrollment is given to expiring CRP acres. Interim final rules implementing the new program were published at 80 Fed. Reg. 11,032 (Feb. 27, 2015) and will be codified at 7 C.F.R. pt. 1468.

For farmland, the ACEP provides a mechanism for USDA to enter into partnership agreements with eligible entities to purchase agricultural land easements. Agricultural land easements are to be permanent or for the maximum duration allowed under state law. The federal contribution to the purchase of the easement may not exceed 50% of the fair market value of the easement. The partner entity should contribute an equivalent amount, which may include a charitable donation or a qualified conservation contribution from the private landowner along with cash. The NRCS provides technical assistance for developing an agricultural land easement plan that is incorporated into the easement contract. The partner entity is responsible for enforcing and monitoring the easement according to that plan.

There is a special provision for grasslands of “special environmental significance.” The federal share may be up to 75% of the fair market value of the easement and the partner entity’s cash contribution requirement may be waived.

For wetlands, the ACEP provides Wetlands Reserve Easements that are designed to restore, maintain, and enhance wetlands through the use of either 30-year or permanent easements. The landowner agrees to restore and maintain the wetland according to a plan set forth in the easement in exchange for USDA compensation and technical assistance. Wetlands are accepted into the program based on the conservation benefit, cost effectiveness, and financial leverage. Compensation is based on the fair market value of the land and the length of the easement. The ACEP allows the USDA to delegate the management, monitoring, and enforcement of the wetland reserve easement to a separate authority.

For more information, see USDA, NRCS, Agricultural Conservation Easement Program website, the interim final rules at 80 Fed. Reg. 11,032 (Feb. 27, 2015) (to be codified at 7 C.F.R. pt. 1468); and Megan Stubbs, *Conservation Provisions in the 2014 Farm Bill (P.L. 113-79)*, Cong. Res. Serv. Rep. No. R43504 (Apr. 24, 2014). All are available on www.FoodFarmingSustainability.com.

c. Working Land Conservation Programs

“Working lands conservation programs” are those programs that allow a private landowner to continue using the land in agricultural production, but agree to implement specified conservation practices to address natural resource concerns specific to that production. Farmers receive technical assistance and planning advice regarding the conservation needs on the farm. Farmers apply for the program, and if selected receive financial support to cover a portion of the costs of the practices undertaken. Working lands programs are designed to provide a flexible set of incentives for conservation while keeping the land in production. They are based on the premise that some environmental problems, such as pesticide and nutrient runoff, can be cost-effectively addressed while maintaining the production value of the land or keeping a livestock facility in operation. This is supposed to result in environmental benefits that are achieved at a lower cost per acre than through land retirement.

The two predominant working lands programs are the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP).

EQIP provides financial and technical assistance to farmers and landowners to plan and incorporate structural, vegetative, and land management practices into their operations in order to alleviate environmental or natural resource problems. Farmers enter into contracts to receive payment for implementing these practices. The improvements and practices are carried out according to an EQIP plan developed with the technical assistance of the USDA NRCS.

The program began in 1996 with contracts for \$130 million in EQIP funds. Since then, through fiscal year 2013, the NRCS reports that it has entered into 559,275 contracts to provide over \$9.8 billion in financial assistance to help agricultural producers apply conservation practices.

The 2014 Farm Bill reauthorized and amended EQIP for a total of \$8 billion between FY2014 and FY2018 with a graduating level of mandatory funding—\$1.35 billion (FY2014); \$1.6 billion (FY2015); \$1.65 billion (FY2016-FY2017); and \$1.75 billion (FY2018). The Farm Bill repealed another working lands program, the Wildlife Habitat Incentive Program (WHIP) but amended EQIP to require that 5% of total EQIP payments benefit wildlife habitat. A prior requirement that 60% of all EQIP

payments benefit livestock producers was reauthorized. EQIP funding has been reduced each year in the annual appropriations process, and it has never received its full authorized level of funding. See, Megan Stubbs, *Conservation Provisions in the 2014 Farm Bill (P.L. 113-79)*, Cong. Res. Serv. Rep. No. 43504 (Apr. 24, 2014) (available on www.FoodFarmingSustainability.com).

Additional information about EQIP can be found on the NRCS EQIP webpage. Interim rules implementing the 2014 Farm Bill changes were published at *Environmental Quality Incentives Program (EQIP)*, 79 Fed. Reg. 73,954 (Dec. 12, 2014) (codified at 7 C.F.R. 1466). In explaining the program in the prefatory comments to the new rules, NRCS stated:

Through EQIP, NRCS provides assistance to agricultural producers to conserve and enhance soil, water, air, plants, animals (including wildlife), energy and related natural resources on their land. Eligible lands include cropland, grassland, rangeland, pasture, wetlands, nonindustrial private forest land, and other agricultural land on which agricultural or forest-related products or livestock are produced and natural resource concerns may be addressed. . . . The type of assistance NRCS provides includes:

- Technical and financial assistance to help producers change tillage practices that enhance soil resources by sustaining tillth, moisture control, nutrients and overall soil health.
- Assistance to replace or improve the management of irrigation systems to conserve scarce water resources. EQIP is also used to help producers manage nutrient applications to protect water quality.
- Assistance with managing grazing to assure adequate forage is available and to sustain plant biodiversity and protect rare species. These practices help maintain watershed health and enhance water quality.
- to help producers apply energy efficient practices that reduce energy consumption (e.g., reduce tillage conserves fuel, energy efficient lighting).
- Assistance to help producers implement conservation practices that sequester carbon or capture methane emissions and greenhouse gases which contribute to climate change.
- Assistance to help producers implement over 160 conservation practices on their land to sustain and improve the health of natural resources and provide public benefits. . . .

Conservation benefits are reflected in the differences between anticipated effects of treatment in comparison to existing or benchmark conditions. Differences may be expressed by narrative, quantitative, visual, or other means. Estimated or projected impacts are used as a basis for making informed conservation decisions by applicants and NRCS to help determine which projects to approve for EQIP assistance. While NRCS currently lacks data with which to quantify the impacts, it will investigate ways to quantify the incremental benefits obtained from this program.

. . .

The 2014 Farm Bill replaced the rolling six-year payment limitation in the prior law with a payment limitation applicable to FY2014 to FY2018. The payment limitation was increased from \$300,000 to \$450,000 per person/legal entity. Authority to waive the payment limitation was revoked. See, *Environmental Quality Incentives Program (EQIP)*, 79 Fed. Reg. 73954 (Dec. 12, 2014) (codified at 7 C.F.R. 1466.24).

The Conservation Stewardship Program (CSP) also provides financial and technical assistance to farmers, with a focus on maintaining and improving existing conservation activities. It is structured differently from EQIP, with a focus on the identification of priority resource concerns. Upon applying to

the program, farmers must identify two priority resource concerns (the 2014 Farm Bill expanded this requirement from one concern to two) and meet a “stewardship threshold” for these priority resource concerns when they apply for the program. Participants must agree to maintain this threshold and meet or exceed the stewardship threshold for at least one additional priority resource concern by the end of the five-year contract. In exchange, participants receive annual payments that are based, in part, on conservation performance. The program is limited by the number of acres available for enrollment each fiscal year, not total funding. Enrollment is offered through a continuous sign-up and applications are accepted year-round. At the end of FY2013, 59 million acres were enrolled in CSP.

The 2014 Farm Bill reauthorized and amended the CSP. The authorizing statute was reorganized and the program was refocused on achieving additional conservation benefits. As noted, applicants are now required to address two priority resource concerns upon entry into the program and to meet or exceed one additional priority resource concern by the end of the contract. The number of enrollable acres per year was reduced from 12,769 million acres to 10 million acres. The CSP budget was reduced in FY2011 and FY2012, when appropriators placed limits on mandatory spending and further reduced in FY2013 by sequestration.

For additional information, see, Megan Stubbs, *Conservation Provisions in the 2014 Farm Bill* (P.L. 113-79), Cong. Res. Serv. Rep. No. 43504 (Apr. 24, 2014) (available on www.FoodFarmingSustainability.com). Interim final regulations implementing the Farm Bill amendments to CSP were published at 79 Fed. Reg. 65,843 (Nov. 5, 2014) (codified at 7 C.F.R. pt. 1470) (linked on www.FoodFarmingSustainability.com).

Notes

1. While the working lands programs have encouraged conservation practices and financed improvements that benefit the environment, some have criticized them as disguised farm program payments. The EQIP has been strongly criticized for the use of federal funds in support of concentrated animal operations. See, e.g., Elanor Starmer, *Industrial Livestock at the Taxpayer Trough: How Large Hog and Dairy Operations are Subsidized by the Environmental Quality Incentives Program*, A Report to the Campaign for Family Farms and the Environment (Dec. 2008) linked on www.FoodFarmingSustainability.com. This report analyzes EQIP funding from 2003–2007 and criticizes the program for providing a disproportionate share of funding to large industrialized operations. It estimates that during this time period, approximately 1,000 industrialized hog and dairy operations received at least \$35 million per year in EQIP funding.

Critics of industrialized animal operations complain that the alleged economic efficiency of these operations is based largely on the fact that external costs such as environmental harm are not considered. EQIP provides government support to pay these costs. Others argue that the environmental improvements associated with the EQIP livestock projects are of benefit to all.

2. Also of relevance to livestock operations, there is a sub-program within EQIP called the Conservation Innovation Grants (CIG) program. The program is “intended to leverage federal investment, stimulate innovative approaches to conservation, and accelerate technology transfer in environmental protection, agricultural production, and forest management.” It was reauthorized in the 2014 farm bill through FY2018 at an unspecified funding level of total EQIP funding. There is an air quality component to this program, funding producers who implement practices to address air quality concerns from their agricultural operations in compliance with federal, state, and local regulatory requirements. This air

quality component was previously authorized at \$37.5 million annually and was reduced to \$25 million annually (between FY2014 and FY2018) in the 2014 Farm Bill. The Farm Bill also adds a reporting requirement that no later than December 31, 2014, and every two years thereafter, a report must be submitted to Congress regarding CIG funding, project results, and technology transfer efforts. *See*, Megan Stubbs, *Conservation Provisions in the 2014 Farm Bill (P.L. 113-79)*, Cong. Res. Serv. Rep. No. 43504 (Apr. 24, 2014) (available on www.FoodFarmingSustainability.com).

3. Another criticism of the working lands programs relates to the role of the NRCS as a regulator. Compliance with the contracts governing the land retirement programs has typically been done by Farm Service Agency, an agency familiar with a regulatory role. In contrast, the role of NRCS has typically been one of providing technical support and encouraging participation in conservation efforts. Some argue that it has struggled in providing effective contract supervision and compliance enforcement. The USDA OIG reached this conclusion in a 2013 report.

The Office of Inspector General (OIG) found that the Natural Resources Conservation Service (NRCS) has not implemented a comprehensive, integrated compliance strategy designed to verify that its \$3.6 billion in conservation programs are functioning as intended. This has occurred because, according to NRCS' strategic plan, the agency focuses on putting conservation practices "on the ground." We maintain that the NRCS must also design adequate compliance activities to ensure that program benefits are reaching those who are truly eligible and serving their intended purposes. Over the past decade, a number of OIG audits have demonstrated that NRCS has long-standing problems with verifying the eligibility of participants, their compliance with conservation agreements, and how easements are valued. This review shows that NRCS must strengthen its efforts to improve program compliance by, for instance, reorganizing so that one person or entity at NRCS has the responsibility and authority to ensure that compliance and oversight activities are effective. We also found that NRCS has never performed a risk assessment of its overall program operations, a fact that NRCS officials acknowledge. When NRCS did perform compliance reviews, those reviews did not focus on the specific program vulnerabilities identified by prior OIG reports. Without an improved compliance effort, NRCS cannot ensure the integrity of its \$3.6 billion in program expenditures, nor can it ensure that its resources are used efficiently and effectively to reduce the risk of fraud, waste, and abuse.

USDA Office of Inspector General, *Natural Resource Conservation Service Oversight and Compliance Activities*, Audit Rep. No. 10601-0001-22 (Feb. 2013), linked on the www.FoodFarmingSustainability.com.

The NRCS accepted the criticism and OIG recommendations stating, "NRCS' Leadership recognizes the importance of a robust compliance program. Accordingly, the agency is moving resolutely to integrate and focus its compliance activities through a comprehensive, coordinated, agency-wide compliance strategy." *Id.*

4. The 2014 Farm Bill created a new Regional Conservation Partnership Program (RCPP) that consolidated a number of prior conservation programs that provided partnership opportunities and/or multi-state funding for watershed-scale projects. The RCPP creates partnership opportunities to target and leverage federal conservation funding for specific areas of concern, with an emphasis on water quantity and water quality. Competitively assessed awards provide funds to conservation projects designed by local partners specifically for their region. Eligible partners include private companies, universities, non-profit organizations, local and tribal governments and others joining with agricultural and conservation organizations, farmers and ranchers. Partners define the project area, provide assistance on the ground, and provide a significant portion of the overall cost of the project. This leverages state, local, and/or

private funding with federal RCCP funds. Regional Conservation Partnership agreements (RCPs) are for five years with a possible one-year extension. See, Megan Stubbs, *Conservation Provisions in the 2014 Farm Bill (P.L. 113-79)*, Cong. Res. Serv. Rep. No. 43504 (Apr. 24, 2014) (available on www.FoodFarmingSustainability.com).

In announcing the 2015 awards, USDA Secretary Vilsack stated, “This is an entirely new approach to conservation efforts. These partnerships empower communities to set priorities and lead the way on conservation efforts important for their region. They also encourage private sector investment so we can make an impact that’s well beyond what the Federal government could accomplish on its own. We’re giving private companies, local communities, and other non-government partners a way to invest in a new era in conservation that ultimately benefits us all. These efforts keep our land resilient and water clean, and promote economic growth in agriculture, construction, tourism, outdoor recreation, and other industries.” NRCS Chief Jason Weller called for a “new venture conservationist movement that empowers and launches new, high-opportunity startup partnerships that deliver locally-led conservation solutions.” *News Release: Agriculture Secretary Announces Funding For 115 Conservation Projects In 50 States--Farm Bill Initiative Marks New Era For Conservation Efforts* (Jan. 14, 2015), linked on www.FoodFarmingSustainability.com.

For more information, visit the USDA RCCP website, linked on www.FoodFarmingSustainability.com.

2. The Regulation of CAFOs

There have been important changes to the regulation of CAFOs. The following text should replace the information about the 2008 regulation on page 199-200.

As noted, under the 2003 Rule, all CAFOs were required to apply for an NPDES permit whether or not they discharged, unless they requested and received a “no potential to discharge” determination. 68 Fed. Reg. 7176, 7266 (Feb. 12, 2003). *Waterkeeper* rejected this requirement. The 2008 regulations included a softened requirement that CAFOs that discharge or “propose to discharge” seek a permit. Again, the regulations were challenged, and again sections of the EPA regulations were struck down. *National Pork Producers Assoc. v. EPA*, 635 F.3d 738 (5th Cir. 2011). The court held that actual discharge was required in order to trigger the EPA’s authority under the CWA.

In July, 2012, the EPA issued a final rule revising its regulations to comply with the 5th Circuit ruling. The new regulation provides that owners and operators of CAFOs are required to have an NPDES permit at the time that they discharge pollutants into waters of the U.S., but removes the vacated provisions. 77 Fed. Reg. 44,494 (July 30, 2012) (codified at 40 C.F.R. § 122.23). Section 122.23(d) now provides that “[a] CAFO must not discharge unless the discharge is authorized by an NPDES permit. In order to obtain authorization under an NPDES permit, the CAFO owner or operator must either apply for an individual NPDES permit or submit a notice of intent for coverage under an NPDES general permit.”

The “stormwater” safe harbor discussed by Professor Ruhl, *supra*, was recently confirmed by a federal district court in West Virginia in a case that also involved CAFO regulation. *Alt v. U.S. E.P.A.*, 979 F. Supp.2d 701 (N.D. W. Va. 2013). The farm at issue fell within the definition of a large concentrated animal feeding operation (CAFO), as it consisted of eight poultry houses with approximately 200,000 broilers.

In *Alt*, the EPA issued a Findings of Violation and Order for Compliance against the producer, alleging that her poultry operation was a CAFO that had “discharged pollutants from man-made ditches via sheet flow to Mudlick Run during rain events generating runoff without having obtained an NPDES permit.” The order direct the producer to apply for an NPDES permit and threatened an EPA civil action with penalties of \$37,500 per day and possible criminal charges if she did not. Farm advocacy groups intervened to support the farmer and environmental groups, accompanied by food safety groups joined to support the EPA. The EPA withdrew its order and sought to have the case dismissed, but the court let the action go forward. *Alt v. U.S. E.P.A.*, 2013 WL 4520030 (N.D. W. Va., Apr. 22, 2013).

On the merits, the court held that while the CWA defines CAFOs as within the meaning of “point source,” agricultural stormwater discharges are excluded from that definition. The court stated, the discharge of pollutants from a CAFO requires an NPDES permit unless that discharge is an ‘agricultural stormwater discharge.’” If the water pollution occurs as a result of a stormwater discharge, it is not within the EPA’s CWA authority.

This court declares that the litter and manure which is washed from the Alt farmyard to navigable waters by a precipitation event is an agricultural stormwater discharge and therefore not a point source discharge, thereby rendering it exempt from the NPDES permit requirement of the Clean Water Act.

Alt at 715. The EPA initially filed its notice of appeal but later withdrew. The litigants and their supporters on each side of the case see the situation very differently.

The American Farm Bureau Federation applauded the court's decision.

“We are pleased the court flatly rejected EPA's arguments and ruled in favor of Lois Alt,” Farm Bureau President Bob Stallman said. “The outcome of this case will benefit thousands of livestock and poultry farmers who run their operations responsibly and who should not have to get a federal permit for ordinary rainwater from their farmyards.” . . .

[Environmental] groups are "deeply concerned that the ruling will make it more difficult to restore the health of waterways across the country, including the Chesapeake Bay. These waterways have been contaminated by livestock excrement and other pollution from factory farms," they said in a statement. “The court's decision, if it stands, could have devastating impacts on the health of our rivers, streams and lakes and our communities.”

Amanda Peterka, *Water Pollution: Court Rules Against EPA On CAFO Discharges In Big Win For Farm Groups*, Greenwire, E&E Publishing LLC (Oct. 13, 2013).

The cases, regulations, articles and reports referenced above are all linked on www.FoodFarmingSustainability.com.

3. Developing Issues

b. Air Quality

New resources for updated information:

Two reports by Claudia Copeland provide an excellent update to the issue of air pollution from agriculture. These reports, cited below, are available on www.FoodFarmingSustainability.com.

- Claudia Copeland, *Air Quality Issues and Animal Agriculture: A Primer*, Cong. Res. Serv. Rep. No. RL32948 (Dec. 22, 2014);
- Claudia Copeland, *Air Quality Issues and Animal Agriculture: EPA's Air Compliance Agreement*, Cong. Res. Serv. Rep. No. RL32947 (Aug. 18, 2014).

In January 2015, a coalition of non-profit organizations led by the Environmental Integrity Project brought suit against the EPA under the Administrative Procedure Act, seeking to force the agency to act on its pending petitions to designate ammonia as a CAA “criteria pollutant” under the CAA and to establish National Ambient Air Quality Standards (NAAQS) for ammonia. A companion suit was filed demanding a response to Plaintiffs’ 2009 Petition for rulemaking, which requested that the Agency regulate concentrated animal feeding operations (CAFOs) as a source of air pollution under the CAA. Copies of the complaints and the original requests can be found on the Environmental Integrity Project’s website, linked on www.FoodFarmingSustainability.com.

c. Effect of Pesticide Use

New resources for updated information:

Consumer Reports issued a report citing “worrisome” levels of arsenic contamination in rice and rice products and called for the FDA to set limits on the permissible levels. The issue of arsenic in rice and a discussion of its origins can be found in Susan A. Schneider, *Examining Food Safety from a Food Safety Perspective: The Need for a Holistic Approach*, 2014 WISC. L. REV. 397, 405-419 (2014).

The herbicide Glyphosate (Round –Up) has also been in the news. In recent years, it has become less effective at controlling some weeds, and strong varieties of certain weeds (“super weeds”) have developed. USDA ERS reports that in 2014, 14 glyphosate-resistant (GR) weed species had been identified as affecting U.S. crop-production areas, with GR weeds increasing. One particularly invasive resistant weed, Palmer amaranth, has caused significant crop loss in the south, and it is spreading throughout the Midwest. Stronger, more toxic pesticides are being used to combat the GR weeds, and some are calling for increased regulation of glyphosate to prevent the overuse that is causing the rapid evolution of resistance.

For additional information, see the following resources, available on www.FoodFarmingSustainability.com:

- Michael Livingston, Jorge Fernandez-Cornejo, Jesse Unger, Craig Osteen, David Schimmelpfennig, Tim Park, and Dayton Lambert, *The Economics of Glyphosate Resistance Management in Corn and Soybean Production*, USDA, ERS, Econ. Res. Rep. No. 184 (Apr. 2015).
- Donnelle Eller, “*Super Weeds*” *Choke Farms*, DES MOINES REGISTER (June 23, 2014).
- Neil Hamilton, *Don't Repeat Mistakes that Led to Superweeds*, DES MOINES REGISTER (June 28, 2014).

As glyphosate has long been touted as a relatively safe herbicide, many were surprised when on March 20, 2015, the International Agency for Research on Cancer (IARC) of the World Health Organization (WHO) announced that glyphosate would be categorized as “probably carcinogenic to humans.” The IARC is tasked with reviewing the carcinogenicity of pesticides, industrial chemicals, food products and occupational exposure to chemicals. It rates them according to the following categories: group 1, “definitely carcinogenic to humans;” 2A, “probably carcinogenic to humans;” 2B, “possibly carcinogenic to humans;” 3, “not classifiable;” and 4, “probably not carcinogenic to humans.” See WHO, IARC, *Evaluation of Carcinogenic Risks to Humans, List of Classifications*. This particular IARC review considered five agricultural chemicals classified as organophosphates. Two of the pesticides, tetrachlorvinphos and parathion, were given a 2A categorization as “possibly carcinogenic to humans,” and three, malathion, diazinon and glyphosate were rated as 2A, “probably carcinogenic to humans.” The IARC noted that its decision was based on a linkage to tumors in mice and rats as well as ‘mechanistic evidence,’ such as DNA damage to human cells from exposure to glyphosate. Kathryn Z Guyton, Dana Loomis, Yann Grosse, Fatiha El Ghissassi, Lamia Benbrahim-Tallaa, Neela Guha, Chiara Scoccianti, Heidi Mattock, & Kurt Straif, *Carcinogenicity Of Tetrachlorvinphos, Parathion, Malathion, Diazinon, And Glyphosate*, 16 THE LANCET ONCOLOGY 490 (May 2015). A link is provided on www.FoodFarmingSustainability.com.

An immediate and angry response from industry followed, with references made to U.S. studies supporting the safety of the glyphosate. The magazine Nature reported that Robb Fraley, Monsanto’s chief technology officer “accused the IARC of “cherry picking” data” and stated, “We are outraged with this assessment.” Daniel Cressy, *Widely Used Herbicide Linked To Cancer*, NATURE (Mar. 24, 2015). Glyphosate is currently under registration review by EPA. Links are provided on www.FoodFarmingSustainability.com.

d. Nuisance and Right to Farm Laws

New resources for updated information:

There has been a surge in interest in state constitutional amendments to protect the right to farm. These appear to be more targeted to protect against efforts to restrict farming practices rather than to protect the use of farm land. Two examples of successful amendments are found in North Dakota and in Missouri.

North Dakota’s constitution provides that:

The right of farmers and ranchers to engage in modern farming and ranching practices shall be forever guaranteed in this state. No law shall be enacted which abridges the right of farmers and

ranchers to employ agricultural technology, modern livestock production, and ranching practices.

Constitution of the State of North Dakota, Article XI, General Provisions, § 29.

The Missouri constitutional amendment provides:

That agriculture which provides food, energy, health benefits and security is the foundation and stabilizing force of Missouri's economy. To protect this vital sector of Missouri's economy, the right of farmers and ranchers to engage in farming and ranching practices shall forever be guaranteed in this state, subject to duly authorized powers, if any, conferred by article VI of the Constitution of Missouri.

Constitution of the State of Missouri, Article I, § 35.

These amendments have not yet been tested, but their interpretation leaves much opportunity for engaged discussion.

Add as a new final section at the conclusion of the chapter:

Climate Change and Agricultural Production

Climate change will have a profound impact on agriculture, and the current framework of agricultural law does not yet address either the impact or ways to effectively minimize the problem anticipated. *See*, Intergovernmental Panel on Climate Change, *Climate Change 2014 - Synthesis Report of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC): Summary for Policymakers*, Edited by Rajendra K. Pachauri, Leo Meyer. A link is available on www.FoodFarmingSustainability.com.

According to the USDA -

Temperature and precipitation patterns, as well as changes in weed, pest, and disease prevalence are already occurring under a changing climate. These effects are expected to result in transformations in ecosystem functioning and in the economic viability of agriculture in many regions of the world, as well as in the refrigeration requirements of food products, transportation patterns, and other effects. The US is currently a major food importer and exporter, and provides a safety net for many food insecure nations. Global changes both in climate and in food security are therefore likely to influence the US food system through altered production decisions, the goods available to consumers, and their prices.

79 Fed. Reg. 38,482 (July 8, 2014).

The USDA announced that it would be releasing *The Global Climate Change, Food Security, and the US Food System Report* in the Fall of 2015. This report “will examine how a changing climate may affect global food security today, in 25 years, and in 100 years.” It will be published as technical input to

the National Climate Assessment. This Assessment report, including the chapter on Agriculture is available on www.FoodFarmingSustainability.com.

The 2014 USDA Climate Change Adaptation Plan (June 2014) is available at on the USDA Office of the Chief Economist's Climate Change website, and it is also linked on www.FoodFarmingSustainability.com.

A recent announcement from the USDA describes the some of the steps taken and additional actions anticipated, as of June 2015.

The U.S. Department of Agriculture (USDA) today announced additional steps it is taking to integrate climate change adaptation into USDA's programs and operations. These efforts will help ensure taxpayer resources are invested wisely and that USDA services and operations remain effective under current and future climate conditions.

The effects of climate change are complex and far-reaching and it is clear that potential changes could have important impacts on the ability of USDA to fulfill its core mission. Under the updated USDA Policy Statement on Climate Change Adaptation (Departmental Regulation 1070-001), USDA recognizes that climate stressors have consequences for food production, yields of staple crops, forests and grasslands, and these, in turn, affect the economic well-being of individuals.

Climate change adaptation is a critical component of climate change and a complement to mitigation planning. Both are required to address the causes, consequences and potential benefits of climate change. USDA is taking a leadership role with climate adaptation planning to safeguard a resilient, healthy and prosperous Nation in the face of changing climate.

Under the changes announced today, USDA will:

- Integrate climate change adaptation planning, implementing actions, and performance metrics into USDA programs, policies and operations to minimize climate risks and exploit new opportunities that climate change may bring;
- Analyze how climate change is likely to affect its ability to achieve its mission, operations and policy and program objectives;
- Identify appropriate key performance measures to evaluate progress in climate change adaptation;
- Participate in adaptation implementation as part of a broader commitment to developing the next generation of regional climate solutions through USDA Regional Hubs for Risk Adaptation and Mitigation to Climate Change;
- Incorporate climate-resilient decision-making into international development programs and investments of relevant USDA agencies; and

- Develop and maintain an adaptation plan for managing the challenges and consider potential climate change impacts when undertaking long-term exercise, setting priorities for scientific research and developing performance measures.

USDA Updates Department Policy for Climate Change Adaptation, USDA Press Release (June 22, 2015).

IV. Financing the Farm: Agriculture and Commercial Law

A. Distinct Attributes of Farm Finance

1. The Nature of Farm Production Inputs
2. The Special Risks Associated with Agricultural Production
3. The Typical Merger of Personal and Business Assets Associated with Family Farming
4. Society's Need for Food Production

B. Overview of Current Farm Finances

C. Federal Credit Assistance Provided to the Agricultural Sector

1. The Farm Service Agency

- a. The History of the USDA's Lending Programs
- b. Farm Service Agency Direct Loans
- c. Farm Service Agency Guaranteed Loans

2. The Farm Credit System

- a. The History of the FCS
- b. The Current Structure of the FCS
- c. Borrowers' Rights

D. Agricultural Commercial Law: Secured Transactions Involving Farm Assets

1. Crop Financing: Defining Crop Proceeds
2. Livestock Sales and Purchase Money Security Interests

Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Financing the Farming Operation](#).

B. Overview of Current Farm Finances

Update:

In 2012, both crop and livestock sales were at record high levels; the total value of agricultural sales was at the highest ever recorded – almost \$395 billion. *Farm Economics*, 2012 Census Highlights, USDA National Agricultural Statistics Service (NASS), ACH 12-2 (May 2014). These record sales were not uniformly distributed throughout the agricultural economy, however.

Thirteen states produced more than \$10 billion in agricultural products in 2012 and together accounted for 62 percent of agricultural sales. . . . The top ten counties, nine of which were in California, accounted for \$29 billion or 7 percent of total agricultural sales. At the top of the list, Fresno County, with \$5 billion in agriculture sales, had higher sales than 23 individual states.

Farm Economics, 2012 Census Highlights, USDA National Agricultural Statistics Service (NASS), ACH 12-2 (May 2014) (linked on www.FoodFarmingSustainability.com).

Most sales come from the largest farms. Seventy-five percent of all farms had sales of less than \$50,000; combined they only produced 3 percent of the total value of production. In contrast, farms with over \$1 million in sales, about 4 percent of farms, produced 66 percent of total value. Farms with more than \$5 million in sales produced 32 percent of total value. *Id*

Government payments to farmers under the Ag Census include conservation payments, direct payments, loan deficiency payments, disaster payments, and payments from various other federal programs. The USDA does not include crop insurance payments in this category, counting them instead as farm-related income. In 2007, a total of approximately \$8 billion was paid to farmers under the federal farm programs. Of the 2.2 million farms in the U.S., 840,000, just 38 percent of farms, received payments. *Id.*

In 2012, based on programs in effect under the 2008 farm bill, slightly fewer farmers received slightly more farm program income. There were 811,387 farmers who received a total of \$8.1 billion in government payments from federal farm programs. This is 3 percent fewer farmers and a 1 percent increase in payments. The USDA explains that the decrease in the number of farmers was largely due to decreased participation in federal conservation programs. In 2012, farmers enrolled 29 percent fewer acres and received 18 percent less in conservation payments in 2012 than 2007. *Id.*

Farm-related income includes rental payments, crop and livestock insurance payments, custom work performed on other farms, forest product sales, recreational services provided, patronage dividends, and other income closely related to farming or ranching. For all U.S. farms, farm-related income increased 76 percent between 2007 and 2012. Much of this increase is due to crop insurance payments, which increased more than 300 percent from 2007. The USDA indicates that this was primarily because of a large area affected by drought in 2012. *Id.*

As farm sale values have risen, so have farm production expenses. In 2007, production expenses for all farms totaled \$241 billion, a 39 percent increase over 2002. In 2007, the greatest increase (averaged for all farms) was for gasoline and other fuels, up 93 percent since the prior census in 2002. Fertilizer costs rose 86 percent. Seed and feed costs both rose 55 percent. 2007 Census of Agriculture, USDA, NASS.

The 2012 Census data reveals another significant increase in overall expenses between 2007 and 2012, with overall average production costs up 36 percent in 2012. The cost of seeds was the greatest increase - a 66 percent increase over 2007 expenses. These increases are reflected in the table included on page 12 of this Supplement, *infra* Chapter 1.

Net cash farm income reflects gross farm income minus farm expenses. Net cash farm income improved 23.7 percent from 2007 to 2012, to \$92.3 billion, a particularly impressive figure given the recession affecting the rest of the country during this time period. Indeed, net cash and net farm income reached historic highs during 2012-13. Current economic data shows continued improvement through 2014 with a drop anticipated in 2015.

Predictions going forward anticipate a drop in net cash income as farm prices for many major commodity crops decline markedly. One report predicts net cash income in 2015 at \$89.4 billion, down \$26 billion (-22%) from 2014. Randy Schnepf, *U.S. Farm Income Outlook for 2015*, Cong. Res. Serv. Rept. No. R40152 (Feb. 18, 2015) (posted on www.FoodFarmingSustainability).

One of the primary difficulties associated with the farm economy data, however is that it reflects an industry average. Within the industry, there is a dramatic range of fortunes, with many farms showing a negative net cash income, often smaller operations. Households operating smaller farm operations typically support their farming operation through off-farm income. Others, typically some of the largest, most well-established operations, show strong profits.

“Farmers in the middle,” have also been a concern since the 1980s. While the overall number of

farms includes small farms in urban and suburban areas that can be supported with off-farm income, the story in rural America reflects a dramatic decline in the number of farms. The land that these farms operated has not gone out of production, it has been consolidated into larger and larger farms. Mid-sized farms are under continual pressure to compete with their larger counterparts. There is often competition for land (to rent or purchase) and competition for markets. And, in many rural areas, there will likely not be easy access to well-paying off-farm employment. *See e.g.*, Heidi Marttila-Losure, *The Disappearing Middle: Mid-Sized Farms That Once Supported Rural Communities Are Fading Away*, DAKOTAFIRE MAGAZINE (July 14, 2012) (Noting that “[w]hile the number of very large and very small farms increases, the middle-sized farms are disappearing rapidly.”); *See also*, website for the *Agriculture of the Middle Initiative* (describing itself as a national initiative seeking “to renew. . . agriculture-of-the-middle” and defining that term to mean the disappearing sector of mid-scale farms/ranches and related agrifood enterprises that are unable to successfully market bulk commodities or sell food directly to consumers”). Links to both are available on www.FoodFarmingSustainability.com.

Despite the overall sector performance, financial distress is evident in some segments of agriculture. Over 7 percent of family farm households were classified as limited-resource farms in 2012, based on relatively low farm sales and low household income. “Limited resource” farms have household income that is below the poverty level, or less than half the county median household income, for the current and previous years.

[S]mall farms were less profitable. In the case of retirement, off-farm occupation, and low-sales farms, the median operating profit margin and rates of return on assets and equity were negative. A large majority of the farms in the three groups fell in the critical zone for the rate of return on assets and the operating profit margin. The situation was better for moderate-sales farms. Their medians for the three ratios were positive—but substantially less than those of larger family farms— and roughly half of the farms were outside the critical zone for the rate of return on assets and operating profit margin.

Robert A. Hoppe, *Structure and Finances of U.S. Farms: Family Farm Report, 2014 Edition*, 50, USDA, ERS EIB-132 (2014) (reporting on 2011 data), linked on www.FoodFarmingSustainability.com.

As American agriculture has evolved, the need for capital has risen dramatically. Most farmers need significant amounts of capital to fund their operations. The USDA Economic Research Service estimates that farm debt for 2015 will be approximately \$327.4 billion – \$186.4 billion in real estate debt and \$141 billion in non-real estate debt. *See*, USDA, ERS, Farm Sector Income & Finances, *Assets, Debt, and Wealth* website, linked on www.FoodFarmingSustainability.com.

For additional information about the current state of the farm economy and the financial situation of different categories of farmers, refer to the following resources:

- 2012 Census of Agriculture, USDA NASS
- The USDA Economic Research Service (ERS) provides updated information on farm financial performance on their Farm Sector Income & Finances website.
- The USDA Economic Research Service (ERS) provides updated information on farm income on the Farm Household Wellbeing website.
- Timothy Park, Mary Ahearn, Ted Covey, Kenneth Erickson, J. Michael Harris, Jennifer Ifft, Chris McGath, Mitch Morehart, Stephen Vogel, Jeremy Weber, and Robert Williams,

Agricultural Income and Finance Outlook, USDA, Economic Research Service, AIS-91 (Dec. 2011) (providing updated information on farm income, economic wellbeing and farm earnings).

- Cynthia Nickerson, Mitch Morehart, Todd Kuethe, Jayson Beckman, Jennifer Ifft, and Ryan Williams, *Trends in U.S. Farmland Values and Ownership*, USDA ERS, Economic Information Bulletin No. (EIB-92) (Feb. 2012) (examining both macroeconomic and parcel-specific factors that affect farmland values and discussing recent trends in farmland values).

These sites and documents are linked on www.FoodFarmingSustainability.com.

C. Federal Credit Assistance Provided to the Agricultural Sector

Providing assistance to beginning farmers has been of increasing importance within all of the subsidized farm finance programs. Given the advancing age of farmers, farm transition is a significant societal issue.

Access to land is generally considered to be one of the most significant challenges facing beginning farmers. High land values and an increasing amount of land held by non-farmers are barriers to entry. Consider the following chart of land and rental values and the wide ranging values. These values are, of course, impacted by the basic production value of the land. Increasingly, water access will be a critical factor in land value and in production value. Other factors, however, including development pressure and demand are also important in establishing values - and these factors may lead to a pricing structure that is not sustainable for agricultural production. Federal farm program payments, now including whole farm revenue insurance, are factored into the valuation of land, raising its value. This tends to favor existing landowners. These payments can be an important to the security of a mortgage lender.

The following chart was taken from the USDA ERS *Land Use, Land Value & Tenure* website at <http://www.ers.usda.gov/topics/farm-economy/land-use,-land-value-tenure/background.aspx>, available on www.FoodFarmingSustainability.com as a direct link.

Farmland Real Estate Value and Cash Rent by Production Region, 2013

	Farm real estate	Cropland		Pasture	
	Value	Value	Rent	Value	Rent
<i>Dollars per acre</i>					
Corn Belt	6,400	6,980	209	2,490	35.5
Northeast	4,840	5,280	70.5	3,270	30.5
Lake States	4,660	4,660	155	2,020	30.5
Pacific	4,510	5,820	227	1,680	13
Appalachian	3,840	3,930	90.5	3,410	22
Southeast	3,320	3,410	71.5	3,380	18.5
Delta States	2,600	2,410	96.5	2,270	17
Northern Plains	2,130	2,950	104	816	18.5
Southern Plains	1,760	1,610	35	1,520	7.6
Mountain	1,020	1,750	79.5	558	5
U.S. total (48 States)	2,900	4,000	136	1,200	12
Source: <i>Land Values and Cash Rents, 2013 Summary</i> (USDA-NASS) . Annual data by region and State are available from Quick Stats .					

The USDA NASS prepares Land Value Summaries, with the latest publication being the 2014 Summary (Aug. 2014). It is linked on www.FoodFarmingSustainability.com.

The USDA NASS Land Tenure Survey Report is due out soon. See the USDA NASS land tenure survey website to check for its release: <http://www.agcensus.usda.gov/Publications/TOTAL>, and www.FoodFarmingSustainability.com will be updated to include it when it is available.

1. The Farm Service Agency

Update:

A Congressional Research Service Report recently described FSA's current role in agricultural finance.

USDA's Farm Service Agency is a lender of last resort because it makes direct farm ownership and operating loans to family-sized farms that are unable to obtain credit elsewhere. FSA also guarantees timely payment of principal and interest on qualified loans made by commercial lenders such as commercial banks and FCS. Permanent authority exists in the Consolidated Farm and Rural Development Act (CONACT, 7 U.S.C. 1921 et seq.). Prior to the banking crisis in 2008, FSA usually made and guaranteed about \$3.5 billion of farm loans annually. Supplemental appropriations during the financial crisis raised FSA loan activity to about \$6.0 billion in

FY2010. In FY2014, an appropriation of \$90 million in budget authority (and \$300 million for salaries) supports the issuance of \$5.5 billion of new direct loans and guarantees.

Direct loans are limited to \$300,000 per borrower (\$35,000 for microloans), and guaranteed loans to \$1,355,000 per borrower (adjusted annually for inflation). Direct emergency loans are available for disasters.

Part of the FSA loan program is reserved for beginning farmers and ranchers (7 U.S.C. 1994 (b)(2)). For direct loans, 75% of the funding for farm ownership loans and 50% of operating loans are reserved for the first 11 months of the fiscal year. For guaranteed loans, 40% is reserved for ownership loans and farm operating loans for the first half of the fiscal year. Funds are also targeted to “socially disadvantaged” farmers by race, gender, and ethnicity (7 U.S.C. 2003). Because of these provisions, FSA also is known as lender of first opportunity for borrowers who are not yet creditworthy for regular commercial business loans.

Jim Monke, *Agricultural Credit: Institutions and Issues*, 7, Congressional Research Service, Rep. No. RS21977 (June 18, 2014) (available at www.FoodFarmingSustainability.com).

The FSA published a one-page fact sheet that lists the basic elements of the FSA loan programs (direct and guaranteed), incorporating some of the changes contained within the farm bill. This fact sheet, dated November 2014, is available on the USDA FSA Farm Loans website and on www.FoodFarmingSustainability.com.

Add to Notes, p. 237

The Farm Service Agency developed a new Micro-loan (ML) program to serve what it terms “non-traditional farm operations.” The program targets family farm operations that serve local and niche markets on a smaller scale. The ML program is an Operating Loan program with simplified application, eligibility and security requirements and more flexible access to credit.

The FSA published a fact sheet on the micro-loan program that is available on the available on the USDA FSA Farm Loans website and on www.FoodFarmingSustainability.com.

Add to Notes, p. 243-4 (Note 1)

“Contract growers’ total debt amounted to \$5.2 billion, or 22 percent of their total assets, in 2011. . . . Over 2009-2013, the FSA guaranteed an annual average of \$210 million in loans made to broiler producers, about 8.1 percent of all agricultural loan guarantees made by FSA.” James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, USDA, Econ. Res. Serv. EIB-126 (June 2014) (linked on www.FoodFarmingSustainability.com)

See also, Christopher Leonard, *THE MEAT RACKET*, 141-145 (2014) (referencing an FSA internal audit that reported \$568.9 million in new loans for poultry farms in 2008-09). While the FSA loan programs are designed for borrowers who cannot obtain credit elsewhere, it is a different twist to use the programs to support loans that would not be made on their basic terms without government assistance.

Add to Notes, p. 244 (Note 2)

The 2014 Farm Bill made relatively small policy changes to USDA's credit programs. These changes are explained in Jim Monke, *Agricultural Credit: Institutions and Issues*, 7, Congressional Research Service, Rep. No. RS21977 (June 18, 2014), excerpted as follows and posted in full on www.FoodFarmingSustainability.com:

[The 2014 Farm Bill] gives USDA discretion to recognize alternative legal entities to qualify for farm loans and allow alternatives to meet a three-year farming experience requirement. It increases the maximum size of down-payment loans and eliminates term limits on guaranteed operating loans (by removing a maximum number of years that an individual can remain eligible). It increases the percentage of a conservation loan that can be guaranteed, adds another lending priority for beginning farmers, and facilitates loans for the purchase of highly fractionated land in Indian reservations, among other changes.

Term Limits on USDA Farm Loans

Congress added "term limits" to the USDA farm loan program in 1992 and 1996 to restrict eligibility for government farm loans and encourage farmers to "graduate" to commercial loans. The term limits place a maximum number of years that farmers are eligible for certain types of FSA loans or guarantees. However, until the end of 2010, Congress had suspended application of one of the term limits to prevent some farmers from being denied credit. The 2014 farm bill eliminated term limits on guaranteed operating loans (Table 1).

Farm Operating Loans

Direct operating loans are limited to a six-year period. In certain cases, borrowers may qualify for a one-time, two-year extension (7 U.S.C. 1941(c)(1)(C) and (c)(4)). Note that term limits are separate from the maximum maturity or duration of an individual loan, which may be as long as 40 years for a farm ownership loan or as short as 1 year for a farm operating loan.

Guaranteed operating loans have no term limit (a change in the 2014 farm bill). Prior to the 2014 farm bill, guaranteed operating loans were limited to a 15-year period. Enforcement of that term limit, however, had been suspended by statute until December 31, 2010. Upon expiration of the suspension, the 15-year term limit applied from 2011-2013. USDA had said that about 1,600 borrowers had reached the guaranteed term limit and would not qualify for additional operating loan guarantees (personal communication with House Agriculture Committee and USDA farm loan staff, December 2010).

Farm Ownership Loans

A borrower is eligible for direct farm ownership (real estate) loans for a maximum of 10 years after the first loan is made (7 U.S.C. 1922(b)(1)(C)).

There is no time limit on eligibility for guaranteed farm ownership loans.

Table 1. Term Limits on Farm Service Agency Loans
Maximum number of years that farmers are eligible for loans

Type of FSA Loan	Direct Loan Term Limits	Guaranteed loans term limits
Farm Operating Loans (OL)	6 years, plus possible 2-yr. extension	10 years
Farm Ownership Loans (FO)	No term limit	No term limit

2. The Farm Credit System

b. The Current Structure of the FCS

The structure of the Farm Credit System has not changed significantly in recent years, and the history of how it came to its current structure is of decreasing importance. The following report provides a helpful overview of its current structure. Jim Monke, *Farm Credit System*, Cong. Res. Serv. Rep. No. RS21278 (Apr. 6, 2015). It is posted on www.FoodFarmingSustainability.com.

V. “Forty Acres and a Mule:” Discrimination in Agriculture

- A. History of African American Farmers in the United States
- B. USDA Discrimination Against African American Farmers**
- C. USDA Discrimination: Native American, Hispanic and Women Farmers
 - 1. Native American Farmers**
 - 2. Hispanic Farmers**
 - 3. Women Farmers**
- D. Current USDA Policy and Issues
- E. The Face of Agriculture Today
 - 1. African American Farmers
 - 2. Native American Farmers
 - 3. Hispanic Farmers
 - 4. Women Farmers

Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Discrimination in Agriculture](#).

B. USDA Discrimination Against African American Farmers

Add to this section, at the end, page 338.

On December 8, 2010, the Claims Resolution Act of 2010 was signed into law. This Act provided \$1.15 billion (additional to the \$100 million already provided in the 2008 Farm Bill) to fund the 2010 Settlement Agreement announced by Attorney General Holder and Secretary Vilsack and prescribed several new terms for incorporation into the Settlement Agreement.

U.S. District Court Judge Friedman signed an order approving the settlement agreement on October 27, 2011. This settlement resolved all of the claims asserted in the 23 lawsuits that were consolidated into the single case called *In re Black Farmers Discrimination Litigation*, sometimes referred to (somewhat incorrectly) as *Pigford II*.

Judge Friedman’s order provided that the 180-day period for submitting claims under the Settlement extended from November 14, 2011 to May 11, 2012.

For additional information, including copies of the Settlement Agreement, see the *In re Black Farmers Discrimination Litigation Settlement* website at <https://www.blackfarmercase.com//Default.aspx>.

The most relevant documents, including Judge Friedman’s order approving the settlement and describing the issues presented are posted and linked on www.FoodFarmingSustainability.com.

C. USDA Discrimination: Native American, Hispanic and Women Farmers

1. Native American Farmers

Insert the following at the conclusion of this section, on p. 339

Claim filing under the terms of the 2010 settlement agreement with USDA was conducted throughout 2011, with a deadline of December 27, 2011. Information about the claims process can be found on the settlement website. <http://www.indianfarmclass.com/Default.aspx>

The class in this case is defined as all Native American farmers and ranchers who:

- Farmed or ranched or attempted to farm or ranch between January 1, 1981 and November 24, 1999; and
- Sought, or attempted to seek, a farm loan from the USDA during that period; and
- Complained about discrimination to the USDA orally or in writing on their own or through a representative, such as a tribal government, during the same time period.

Excluded are claims of Class Members who either experienced discrimination only between January 1 and November 23, 1997; or complained of discrimination only between July 1 and November 23, 1997.

Native Americans who could show class eligibility were entitled to receive a payment of up to \$50,000 or more and forgiveness of some or all outstanding USDA loans. A \$760 million settlement fund was established. After attorneys fees and awards are deducted from this amount, two funds will be created. The first will pay claims to class members and the second will provide full or partial loan forgiveness. The USDA has promised to pay an additional amount, up to \$20 million for the cost of administering the claims. Note that the amount received by any claimant will be determined in large part by the number of valid claims filed. If any money remains in the Settlement Fund after all claims and expenses are made, "it will be donated to one or more organizations that have provided agricultural, business assistance, or advocacy services to Native Americans."

The settlement agreement and the notice provided to potential claimants are found at the [IndianFarmClass](http://www.IndianFarmClass.com) website along with other important documents associated with the case. Documents and links are provided on www.FoodFarmingSustainability.com.

With respect to the attorneys fees, the Claims Notice explains as follows:

Subject to approval of the Court, Class Counsel will ask for an award of attorneys' fees and expenses, in an amount of up to 8% of the \$760 million Settlement amount. These attorneys' fee pay for work the attorneys have performed on behalf of the Class for the past 11 years and for work yet to be done in helping to administer the settlement. Class Counsel will also ask the Court to award up to \$950,000 to the class representatives, who helped the lawyers on behalf of the whole Class. Such awards are subject to approval of the Court.

The settlement claims process was completed and all successful claims were paid out pursuant to the Settlement Agreement. However, participation in the claims process was lower than estimated, likely due to deep seated distrust on the part of the potential claimants. The settlement fund was left with a significant amount of money designated for relief. Pursuant to the case website:

Following completion of the claims process and payment of all successful claims pursuant to the Settlement Agreement, there is approximately \$380 million remaining in the settlement fund (called the “cy pres funds”). Pursuant to the settlement agreement, those funds may only be given to non-profit organizations which provide services to current Native American farmers and ranchers and Native Americans seeking to become farmers and ranchers. While Plaintiffs sought agreement from USDA to modify the agreement to permit additional distributions to prevailing claimants, or further consideration for unsuccessful or late claimants, USDA would not agree to such a significant change to the agreement, and the settlement agreement cannot be changed without agreement from the government as well as the Plaintiffs. Therefore, Plaintiffs turned to modifying the mechanism for the cy pres distribution to make it more effective.

After a tentative agreement was reached with USDA in May, Class Counsel hosted a series of meetings and conference calls to receive input from class members and the community . . .

Plaintiffs’ counsel has filed a motion asking the Court to approve modification of the cy pres provision of the Settlement Agreement. The proposal provides for an initial distribution of \$38 million to eligible non-profit organizations, and transfer of \$342 million to a Trust created to administer the funds. The Trust would be required to distribute all funds within 20 years of the date it begins its operations. The Trust would make grants to not-for-profit organizations for projects that will serve Native American farmers and ranchers. Individuals familiar with the needs of Native Americans in agriculture will oversee the Trust and select recipients of the Trust funds.

A notice of this proposal regarding the cy pres funds is available on the *Indian Farm Class* website and is posted directly on www.FoodFarmingSustainability.com.

An objection was filed by a named plaintiff, Marilyn Keepseagle, initially pro se and then represented by new counsel, seeking to modify the Agreement to provide for an additional distribution of the remaining funds among prevailing claimants. The USDA had previously rejected any such distribution, noting the large amount of funds at issue. Other objections and proposals followed. The court delayed action on the settlement to allow adequate time to hear the objection. A hearing was held on June 29, 2015. Updated information can be found on the website IndianFarmClass.com, where there is a page devoted to legal actions regarding the cy pres funds. This and other information is posted or linked on www.FoodFarmingSustainability.com and updates will be posted there when a final order is issued by the court.

2. Hispanic Farmers

3. Women Farmers

Replace the two sections on page 339 with the following unified section:

2. Women and Hispanic Farmers

In 2000, the of *Garcia v. Vilsack* was filed on behalf of a class of Hispanic farmers, alleging that the USDA unlawfully discriminated against them on the basis of their race, in violation of the Equal Credit Opportunity Act. While there was no decision on the merits of the claims, the case stalled on class certification. In 2002, the district court denied class certification, holding that the plaintiffs did not make

the requisite showing that there were questions of law or fact common to the class or that the claims were typical of the class. The plaintiffs appealed this decision, but the Court of Appeals for the D.C. Circuit affirmed. The Supreme Court declined to review the decision.

The plaintiffs in *Love v. Vilsack* were women who alleged that the USDA unlawfully discriminated against them on the basis of their race, in violation of the Equal Credit Opportunity Act.. Garcia and Love were initially heard by the same district court judge and were eventually consolidated on appeal. In 2004, the court denied the plaintiffs' class certification. On appeal, the D.C. Circuit affirmed this denial and the Supreme Court declined to review.

While neither Hispanic farmers nor women farmers were able to attain class status in their cases alleging discrimination against the USDA, there was strong evidence of past discrimination against both groups, and the Obama administration sought a means to fairly compensate victims. This raised the legally awkward situation in which the government sought to achieve a political settlement of the cases based on their class status even though they had successfully defended against class action status in the courts.

In February 2011, the USDA announced a voluntary claims process that would make available at least \$1.33 billion for cash awards and tax relief payments, plus up to \$160 million in farm debt relief, to eligible Hispanic and women farmers and ranchers. Eligible farmers and ranchers would be those who could prove that the USDA discriminated against them between 1981 and 2000. There would be no filing fees or other costs to claimants and participation would be voluntary. The program would not preclude individuals who opted not to participate from pursuing their cases in court. A website for the claims process was set up at <https://www.farmerclaims.gov/>.

Further development of the claims process stalled, however, as plaintiff groups argued that their settlement was less than that afforded to African American and Native American farmers and the USDA struggled with implementation issues.

On January 25, 2011, USDA Secretary Vilsack announced an “Updated and Improved Process to Resolve Discrimination Claims of Hispanic and Women Farmers.” The announcement noted that the Obama Administration’s efforts would “bring finality to longstanding claims of discrimination in USDA program delivery.”

The updated claims process increased the maximum cash recovery to \$250,000, instead of \$50,000. The process offers “a streamlined alternative to litigation for each Hispanic or woman.”

From the USDA website:

This updated process comes as part of USDA's efforts to ensure that all its customers have equal access to its programs, and follows the Obama Administration's settlement of longstanding litigation brought by African American farmers and Native American farmers. Over the past months, USDA has worked to reach out to potential Hispanic and female claimants through a call center for farmers and ranchers, a website, public service announcements, and in-person meetings around the country. Individuals interested in participating in the claims process may register to receive a claims package, or may obtain more information, by visiting www.farmerclaims.gov. Individuals can also register to receive a claims package by calling the Farmer and Rancher Call Center at 1-888-508-4429. USDA cannot provide legal advice to potential claimants. Persons seeking legal advice may contact a lawyer or other legal services provider.

An independent party or parties will administer the claims process and adjudicate the claims. USDA will contract with an entity that can perform the services required by the updated approach. After this selection is made and USDA announces the opening date of the Claims Period, claimants will have 180 days in which to file a completed Claims Package.

USDA News Release, *Agriculture Secretary Vilsack Announces Updated and Improved Process to Resolve Discrimination Claims of Hispanic and Women Farmers* (Jan. 25, 2012) available on the USDA website and on www.FoodFarmingSustainability.com.

The claim process was open until May 1, 2013. The USDA reports that determinations have been mailed to all claimants who submitted a timely claim. It notes that “all decisions are final, and there is no process for further review or appeal. Checks for successful claims will continue to mail on a rolling basis over the next several months.” See, *Hispanic and Women Farmers and Ranchers Claims Resolution Process*, Farmerclaims website (linked on www.FoodFarmingSustainability.com).

In June 2015, the USDA filed the following status report with the court:

Defendant the United States Department of Agriculture (USDA) submits this status report regarding the voluntary alternative dispute resolution (ADR) program established for farmers who allege discrimination in making or servicing farm loans based on being Hispanic or female.

As of May 22, 2015, the Claims Administrator received a total of 53,803 claims in the ADR program.¹ After completing its review of these claims, the Administrator determined that 22,163 claims were timely and complete, and forwarded these claims to the Claims Adjudicator for consideration under the Framework’s eligibility terms for a potential cash award and debt and tax relief. The Administrator has notified each claimant in writing as to whether his or her claim was rejected as untimely or incomplete, or was determined to be timely and complete, including each plaintiff in the present case who elected to participate in the ADR program, and each such plaintiff in *Garcia v. Vilsack*, No. 1:00-cv-2445 (RBW/JMF) (D.D.C.), and *Cantu v. United States*, No. 1:11-cv-0541 (RBW/JMF).

For each timely and complete claim, under the terms of the Framework, the Adjudicator has made a final determination as to whether the claimant prevailed on the merits. The Administrator has notified each claimant in writing whether his or her claim was approved or denied, including each participating plaintiff in the present case and in *Garcia* and *Cantu*. The Adjudicator approved 3,210 of the timely and complete claims (including claims filed by 2,504 female farmers and 706 Hispanic farmers), resulting in a total of more than \$200 million in cash awards, forgiveness by USDA of eligible farm loan debt, and tax relief. Attached hereto as Exhibit A is a chart that summarizes the number of successful claims and the total dollar amounts of cash awards and debt and tax relief.

The Adjudicator denied a total of 18,953 timely and complete claims, including 10,361 claims that were denied due to fraud concerns, see Framework § X(A)(1), and 691 claims that were denied because they were filed by individuals who asserted claims in other administrative or civil proceedings alleging lending discrimination by USDA during the Relevant Period, id. § XII(B). The remaining 7,901 claims were denied on the merits.

¹ Some of these claims were submitted after the May 1, 2013 deadline, and a small number of late claims continue to be submitted.

The Government has commenced the process of submitting prevailing claims to the Department of Treasury for review and payment by the Judgment Fund of cash awards and tax relief. USDA expects that, by mid-June 2015, payments from the Judgment Fund will have been issued for several hundred prevailing claimants, including most participating plaintiffs in the present case and in *Garcia and Cantu*. The Government continues to submit all additional prevailing claims to Treasury on a rolling basis.

As previously noted, pursuant to the Framework for the ADR program, the USDA Office of the Inspector General is conducting a performance audit of the ADR process.

USDA Status Report, Love et al. v. Vilsack, No. 00-2502, D.C. D.C. (June 8, 2015) available on the Farmerclaims website and posted on www.FoodFarmingSustainability.com.

VI. Agricultural Labor & Employment Law

A. Who Are America's Farmers?

B. An Overview of Federal Labor & Employment Law

1. National Labor Relations Act

2. The Fair Labor Standards Act

3. The Migrant and Seasonal Agricultural Worker Protection Act

C. Current Issues

1. Slavery

2. The "Fair Food" Movement

Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Agricultural Labor Law](#).

A. Who Are America's Farmers?

Updated Information on the economic and demographic characteristics of U.S. farmworkers - to supplement the information contained on pages 358-372.

In 2014, Farmworker Justice requested and received the U.S. Department of Labor (DOL)'s data from its 2011-12 National Agricultural Workers Survey (NAWS). This survey is based on interviews with farmworkers, conducted through a random sampling. In the past, the DOL published reports on the NAWS data, but a report has not been issued since 2005 (based on 2001-2002 data). Farmworker Justice published a memorandum based on its review of the data, summarizing some of the major findings. *Memo On Farmworker Economic And Demographic Statistics*, Farmworker Justice (Nov. 6, 2014). This memo is available on the Farmworker Justice website (www.farmworkerjustice.org) and is directly linked on www.FoodFarmingSustainability.com. A direct link to the raw data from the NAWS is also provided.

The Food Chain Alliance issued a report, *The Hands That Feed Us: Challenges and Opportunities for Workers Along the Food Chain* (June 6, 2012) that evaluates the working conditions and opportunities presented to what it calls the "core food occupations and industries." These occupations are farmworkers, slaughterhouse and other processing facilities workers, warehouse workers, grocery store workers, and restaurant and food service workers. The report notes approximately 20 million workers are employed in these positions, one in five in the private sector workforce, and one in six of the entire U.S. workforce. The Report is available on the Food Chain Alliance website (foodchainworkers.org) and is linked directly on www.FoodFarmingSustainability.com.

B. An Overview of Federal Labor & Employment Law

2. The Fair Labor Standards Act

Add as additional Notes on page 391-92.

3. In 2013, the Congressional Research Service issued a report on child labor issues: Gerald Mayer, *Child Labor in America: History, Policy, and Legislative Issues*, Cong. Res. Serv. Rep. 31501 (Nov. 18,

2013). It is available on www.FoodFarmingSustainability.com.

4. Federal labor law provide the minimum protections afforded to agricultural laborers. Some states have laws that provide additional rights and protections. In 2012 in Minnesota, the state Court of Appeals ruled that under the Minnesota Fair Labor Standards Act, agricultural workers that are paid an hourly rate are subject to the overtime pay requirements. Matter of the Order to Comply: Labor Law Violations of Daley Farms of Lewiston, Minn Ct. App., A11-1788 (July 9, 2012) (available on www.FoodFarmingSustainability.com).

C. Current Issues

1. Slavery

Updated Resource to be inserted at the conclusion of this subsection on page 431.

National Public Radio, *On Point with Tom Askbrook* addressed an instance of slavery in the agricultural workforce in its compelling radio broadcast, *Exploited Labor In The USA* (July 10, 2012). It is available on the program website and is linked directly on www.FoodFarmingSustainability.com.

2. The “Fair Food” Movement

Updated Resource to be inserted at the conclusion of this subsection on page 432.

The documentary, *Food Chains* was released in 2014. It documents the efforts of the Coalition of Immokalee Workers in Florida to convince tomato retailers to increase the price they pay in order to provide a pass through to workers. Their “penny a pound” movement convinced many restaurants and grocery stores (including industry leader, Walmart) to participate. Publix, however, refused, and *Food Chains* provides a moving portrayal of the struggle. Information about streaming the film is available on the *Food Chains* website and linked on www.FoodFarmingSustainability.com.

Note that the Coalition of Immokalee Workers continue to achieve success in their campaign. See, “*A Giant step forward for farmworkers!*”... *Ahold, parent company to Giant, Stop & Shop, and Peapod, joins Fair Food Program!*, CIW Blog (July 29, 2015) (linked on www.FoodFarmingSustainability.com).

VII. The Regulation of Livestock Sales

A. Introduction to the Packers and Stockyards Act

B. Structural Trends in the Livestock Industry

C. Unfair, Unjustly Discriminatory, or Deceptive Practices Under the Packers & Stockyards Act

Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Regulation of Agricultural Sales](#).

Updated Resource to be inserted at the conclusion of the excerpt from the Congressional Research Service Report and prior to the Notes on page 459.

Contracting has been most prevalent and most controversial in the poultry broiler industry. Within this industry, 20 companies account for 96 percent of all broilers produced in the U.S.; 3 companies account for about half of U.S. production. These companies exhibit the highest degree of vertical integration, with the company, termed the “integrator” owning the hatcheries, the chickens, the feed mills, and all stages of the processing facilities. The industry relies almost totally on production contracting with independent farmers, termed “growers.” The growers provide land, housing, labor and typically, utilities (heat/cooling systems and water). The integrator provides the chicks, feed, drugs and veterinary services, and technical assistance as needed. The integrator also provides catching and live-haul services to slaughter. The grower is typically paid based on the number and weight of birds presented for slaughter, reflecting flock mortality and feed efficiency, but pay is also heavily influenced by comparison to other area growers’ performance during the same week, a feature that is referred to as “tournament pricing” or the “tournament system.”

A grower’s initial investment in land, site preparation, construction of several chicken houses, and installation of equipment is likely to exceed a million dollars. In Georgia, economists estimated a cost of \$924,000 for four 25,000 foot chicken houses, excluding the cost of the land. Additional expenditures may be required for expansion, improvements, remodeling, and equipment replacement, with some investments required as a condition of contract renewal under the express or implied terms of the production contract.

Broiler production contracts vary in duration. Some contracts cover only a single flock, termed “flock-to-flock” contracts. Others are relatively long term, with a specified duration of 5 years or even more, although there may be limiting provisions that allow an integrator to cancel under certain market circumstances. Growers may produce for the same integrator for many years, but they do run a risk of cancellation, according to the terms of their contract. Also at issue may be the time period in-between flocks, as the integrator assesses market demand. This may or may not be specified in the contract, but it will clearly be important to financial performance.

The poultry industry, as with other agricultural industries, does not permit general disclosure of contract terms and guards its contracting privacy carefully. In 2002, however, there was an excellent comparison of production contracts used in the poultry industry published. Neil H. Hamilton, *Broiler Contracting in the United States — a Current Contract Analysis Addressing Legal Issues and Grower Concerns*, 7 DRAKE J. AGRIC. L. 43 (2002). A link is provided on www.FoodFarmingSustainability.com.

A recent USDA ERS report provides detailed information about the contracting in the broiler industry. James M. MacDonald, *Technology, Organization, and Financial Performance in U.S. Broiler Production*, USDA, Econ. Res. Serv. EIN Bull. No. 126 (June 2014), available on the USDA ERS website and linked directly on www.FoodFarmingSustainability.com.

Insert the following text after the Picket case, on page 473.

In the subsequent case of *Benn v. OK Industries, Inc.*, a group of 300 poultry growers claimed that their contracts violated the Packers & Stockyard's Act. The case resulted in a \$14.5 million judgment for the growers and two rulings from the Tenth Circuit Court of Appeals interpreting the meaning of the P&SA. The court agreed that harm to competition was an indispensable part of a finding of an "unfair practice" under the P&SA, but held that in addition to monopoly power, a buyer's "monopsony" power can also injure competition. Also of particular relevance - the court noted that the USDA had failed to promulgate regulations on the issue of whether an "unfair practice" required a finding of impact on competition. The lack of regulation limited the deference afforded to the agency. As will be discussed *infra*, the 2008 Farm Bill included a regulatory directive to the agency, sparking a firestorm of controversy.

Benn v. OK Industries, Inc.
495 F.3d 1217 (11th Cir. 2005)

Before TACHA, Chief Circuit Judge, BRISCOE, and HARTZ, Circuit Judges.

TACHA, Chief Circuit Judge.

This appeal presents a matter of first impression for this Circuit, namely whether § 202(a) of the Packers and Stockyards Act ("PSA"), 7 U.S.C. § 181 et seq., requires a plaintiff to prove that an allegedly "unfair practice" injures or is likely to injure competition. The District Court held that such proof is required and, finding that the Plaintiffs had failed to present any evidence of a competitive injury, granted summary judgment in favor of the Defendants. . . . [F]or the reasons that follow, we affirm in part and reverse in part, remanding to the District Court for further proceedings consistent with this opinion.

I. BACKGROUND

Defendants–Appellants OK Industries, OK Farms, Inc., and OK Foods, Inc. (collectively "OK") constitute a vertically integrated poultry producer operating in Arkansas and Oklahoma. OK is involved in almost every stage of the production and wholesale of poultry and poultry products: it breeds, hatches, provides feed for, transports, slaughters, and processes poultry. One aspect of poultry production OK does not handle is the raising of broiler chickens to slaughtering age. OK enters into contracts with various "growers" who handle that part of the production process.

The Plaintiffs–Appellants ("Growers") are a class of growers operating in Oklahoma under contract with OK. In addition to alleging that the process by which OK and its growers enter into

contracts is unconscionable under Arkansas law, the Growers argue that the terms of the contracts, as well as OK's performance under the contracts, violate the Packers and Stockyards Act, 7 U.S.C. § 181 et seq. Their claims hinge on the following undisputed facts.

OK is the largest poultry integrator in Oklahoma. With limited exceptions, no other integrators operate in the geographic markets in which OK operates. At the time of this lawsuit, OK had a waiting list of over 130 persons desiring to become growers for OK or to expand their existing operations. When OK needs to expand its production, it contacts persons on the waiting list to determine whether they are still interested, and if so, whether they will be suitable growers. Prior to entering into a contract with a grower, OK requires the grower to first obtain financing and build chicken houses to specifications set by OK. In exchange for a grower's expenditure of money to build the requisite chicken houses, OK signs a letter of intent, agreeing to enter into a broiler contract with the grower upon satisfactory completion of the chicken houses. One chicken house can cost a grower nearly \$160,000, not including the cost of land and equipment.

All the broiler contracts are materially identical; they are standard contracts drafted by OK and are not subject to negotiation. Under the standard contract, a grower agrees to use only chicks, feed, and medicine supplied by OK. OK is not liable, however, for any loss a grower incurs as a result of OK's failure to provide feed and supplies; nor is OK liable for birds condemned due to certain diseases. The contract also provides that a grower may not sell its chickens to poultry integrators other than OK and may not transfer its broiler contract to other potential growers without OK's prior approval. Under the terms of the contract, OK agrees to provide the grower with only one flock of chicks, which typically takes a grower seven weeks to raise.¹ Thereafter, OK may provide the grower with replacement flocks "from time to time." In addition to deciding when to deliver replacement flocks, OK determines the breed of chicken, the number of chicks per flock, and the number of flocks. Furthermore, at the end of each growing cycle, OK may require that a grower update its houses to meet OK's most recent specifications before it will place another flock of chicks with the grower. These required changes result in significant costs to growers.

The contract also details the method OK uses to calculate a grower's pay. OK uses a "competitive ranking" system to reward growers who produce chickens at the least cost to OK. Under OK's system of payment, OK first calculates the production cost per pound² of each grower's flock and labels this production cost the grower's "flock prime cost." It then lists the flock prime cost of each grower in order from lowest to highest. The flock prime cost of the grower that is numerically in the middle of the list is designated as the "average prime cost." If any individual grower's flock prime cost is less than the average prime cost, then OK pays that grower a higher rate per pound than those whose flock prime cost is higher than the average prime cost. In other words, a grower's pay is based on how growers in a group rank against each other, not on the individual grower's production.

The Growers in this case filed suit in the United States District Court for the Eastern District of Oklahoma. They obtained class certification to challenge the following conduct: (1) OK deducts from the Growers' pay certain charges for medicine and supplies; (2) OK sometimes delivers dead chicks to the Growers and causes the Growers to pay for them because OK counts chicks to be delivered at the hatchery, rather than at the Growers' premises; and (3) OK has reduced the number of birds placed per year with the Growers, causing a substantial decrease in the Growers' income. The Growers also challenged OK's competitive ranking system, arguing it is unfair and unconscionable because (1) OK uses the median flock prime cost as the average prime cost, which alters the rankings in a way that

¹ Because of the large capital commitments needed to become a grower for OK, growers must typically raise chickens for fifteen to twenty-five years to recover their initial investment.

benefits OK to the detriment of the Growers; (2) OK exercises control over factors affecting the Growers' performance; and (3) OK calculates the weight of condemned birds, for which OK will not pay Growers, based on the weight of healthy birds, even though condemned birds can weigh up to 50% less than healthy birds. The Growers alleged that OK's conduct constitutes a breach of contract and violates § 202(a) of the PSA, 7 U.S.C. § 192(a). . . .

II. DISCUSSION

A. The Packers and Stockyards Act § 202(a)

. . .

2. Interpretation of "Unfair Practices" under § 202(a)

. . .

At issue in this case is only what constitutes an "unfair" practice within the meaning of § 202(a). The District Court held that an "unfair" practice is one that "injures or is likely to injure competition." The Growers contend that this interpretation of the statute is belied by the United States Department of Agriculture's ("USDA") interpretation, as well as the statute's plain language and purpose.

We first address the Growers' suggestion that we must defer to the USDA's reasonable interpretation of the statute because the agency is authorized to make rules and regulations necessary to carry out the PSA. *See Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843, (1984) (holding that when Congress has implicitly delegated legislative authority to an agency, "a court may not substitute its own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency"). To that end, the Growers claim that the USDA "has consistently taken the position that in order to prove that any practice is 'unfair' under [§] 202(a) ... of the Act, it is not necessary to prove predatory intent, competitive injury, or likelihood of injury; and that it is the Department's duty to stop unlawful practices in their incipiency prior to actual injury." *In re Ozark County Cattle Co., Inc.*, 49 Agric. Dec. 336, 365 (1990), 1990 WL 320312. They also note that the USDA filed an amicus brief before the Eleventh Circuit in *London v. Fieldale Farms Corp.*, stating that the Secretary of Agriculture's position is that the PSA prohibits all unfair practices, regardless of whether a practice causes a competitive injury.

. . . .

Regulations promulgated by an agency exercising its congressionally granted rule-making authority are clearly entitled to *Chevron* deference. . . . So too is an agency's adjudication of matters over which it has the authority to adjudicate, as such decisions carry the force of law. . . . Here, however, the Secretary has not promulgated a regulation applicable to the practices the Growers allege violate § 202(a), and the USDA has no authority to adjudicate alleged violations of § 202 by live poultry dealers. . . . Moreover, we afford the USDA's position as stated in its amicus brief before the Eleventh Circuit little to no deference. . . . The agency's views so stated "may be accepted by a court only as they have power to persuade." . . . As we explain below, we are not persuaded by the USDA's interpretation of the statute.

. . . .

As the Growers note, nothing in the plain language of § 202(a) indicates that a practice is unfair only if it adversely affects competition or is likely to do so. But neither does the statute otherwise define an unfair practice. Enacted in 1921, the "primary purpose of [the PSA] is to assure fair competition and fair trade practices in livestock marketing and in the meatpacking industry" and "to safeguard farmers ... against receiving less than the true market value of their livestock." H.R.Rep. No. 85-1048, at 1 (1957),

reprinted in 1958 U.S.C.C.A.N. 5212, 5213. The “chief evil” Congress feared was the monopolistic practices of the packers, “enabling them unduly and arbitrarily to lower prices to the shipper, who sells, and unduly and arbitrarily to increase the price to the consumer, who buys.” *Stafford v. Wallace*, 258 U.S. 495, 514–15 (1922). Although intended to be broader than antecedent antitrust legislation, § 202 “nonetheless incorporates the basic antitrust blueprint of the Sherman Act and other pre-existing antitrust legislation.” *De Jong Packing Co. v. USDA*, 618 F.2d 1329, 1335 n. 7 (9th Cir.1980).

Against this backdrop, other circuits have concluded that “unfair[ness]” under § 202(a) requires evidence that the challenged practice will likely lead to a competitive injury. The issue is most thoroughly treated in *Armour & Co. v. United States*, 402 F.2d 712 (7th Cir.1968). *Armour* involved a meat packer’s coupon promotion, which allegedly had the effect of diverting sales from competitors to the defendant. After recognizing the PSA’s ancestry in antitrust law, where Congress has expressed a “basic public policy distinguishing between fair and vigorous competition on the one hand and predatory or controlled competition on the other,” the court reasoned that the “fact that a given provision does not expressly specify the degree of injury or the type of intent required, does not imply that these basic indicators of the line between free competition and predation are to be ignored.” Even though the test of unfairness under § 202(a) is “less stringent than under some of the anti-trust laws,” the court still concluded that the coupon program at issue could not violate § 202(a) “absent some predatory intent or some likelihood of competitive injury.” *Armour*, 402 F.2d at 717;8 *see also* *IBP, Inc. v. Glickman*, 187 F.3d 974, 977 (8th Cir.1999) (concluding that the challenged conduct did not “potentially suppress or reduce competition sufficient to be proscribed by the [PSA]”); *Parchman v. USDA*, 852 F.2d 858, 864 (6th Cir.1988) (“[The PSA] does not require that the Secretary prove actual injury before a practice may be found unfair. The Secretary need only establish the likelihood that an arrangement will result in competitive injury to establish a violation.” . . . ; *DeJong*, 618 F.2d at 1337 (holding that “unfair practices under § 202 are not confined to those where competitive injury has already resulted, but includes those where there is a reasonable likelihood that the purpose will be achieved and that the result will be an undue restraint of competition”).

In a more recent case, based on facts similar to those at issue here, the Eleventh Circuit similarly held that a claim brought under § 202(a) required some showing of a competitive injury or the likelihood of competitive injury. *London*, 410 F.3d at 1303. Like the case before us, *London* involved a vertically integrated poultry company that entered into contracts with growers to raise broiler chickens. One grower filed suit against the company, arguing that the company violated the PSA when it terminated his broiler contract. After a jury returned a verdict in favor of the grower, the district court set aside the verdict and granted the defendant’s motion for judgment as a matter of law. Relying in part on *Armour*, the Eleventh Circuit held that to prevail under § 202(a), a plaintiff must show that the defendant’s practice “adversely affects competition or is likely to adversely affect competition.” . . . In reaching this decision, the court identified the policy implications of a contrary holding: “Eliminating the competitive impact requirement would ignore the long-time antitrust policies which formed the backbone of the PSA’s creation. Failure to require a competitive impact showing would subject dealers to liability under the PSA for simple breach of contract....”

The Growers argue, however, that because § 202’s other subsections contain language prohibiting acts that tend to restrain commerce or create monopolies, *see, e.g.*, 7 U.S.C. § 192(c), (d), (e), the absence of similar language in § 202(a) conclusively means that proof of a competitive injury is not required. We disagree. Unlike subsections (c), (d), and (e), which list specific acts that are unlawful only when they have the tendency or effect of restraining commerce or creating a monopoly, subsection (a) is a general prohibition on “unfair, unjustly discriminatory, or deceptive practice[s]” and provides no further guidance on what type of act falls within its parameters. Not to require a showing of competitive injury or the likelihood thereof would make a federal case out of every breach of contract. Nothing in the PSA suggests

that Congress intended this result.

The Growers also argue that because other subsections require proof of a competitive injury, limiting subsection (a) to anticompetitive acts would render it superfluous and would therefore violate one of the “cardinal principle[s] of statutory construction” to “give effect, if possible, to every clause and word of a statute.” . . . To the contrary, such an interpretation is far from rendering subsection (a) superfluous because it serves as a catchall for acts that Congress could not, at the time of enactment, have foreseen and specified. . . . While the other subsections make certain acts explicitly unlawful, Congress acknowledged with subsection (a) that it could not list the full panoply of unfair, unjustly discriminatory, or deceptive practices or devices that a covered entity might utilize.

Although we have never expressly held that unfairness under § 202(a) requires a likelihood of injury to competition, our circuit precedent is not to the contrary. . . .

The Growers note, however, that we have also resolved cases under § 202(a) without any mention that the relevant practice injures competition. They direct our attention to *Peterman v. USDA*, 770 F.2d 888 (10th Cir.1985), in which we upheld the Secretary’s determination that a meat packer was guilty of deceptive trade practices, including its “bait and switch” tactic, whereby the packer would advertise one product and then convince customers seeking the product to buy a more expensive one instead. To the extent our silence on the competitive injury requirement is relevant, this case is distinguishable because it involved an act alleged to be deceptive, as opposed to unfair. We are concerned here only with whether unfairness requires a showing of a likely injury to competition, not whether deceptive practices require such a showing. We therefore join the those circuits requiring a plaintiff who challenges a practice under § 202(a) to show that the practice injures or is likely to injure competition.

3. OK’s Alleged Violations of § 202(a)

. . . .

In granting summary judgment in OK’s favor, the District Court held:

To prove monopoly power typically requires the willful acquisition or maintenance of such power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident. Monopoly power includes power to exclude competition. Plaintiffs have not presented evidence demonstrating entry barriers or other circumstances which improperly preclude other integrators from competing in this market with defendants. The mere fact that the defendants are the sole integrator does not demonstrate an illegal monopsony. Moreover, the plaintiffs are not competitors of defendants. Thus, injury to them by the allegedly “unfair” contract does not demonstrate injury to competition.

(internal citations omitted). The Growers argue that the District Court erred because it implied that (1) an injury to competition only arises in the context of unlawful monopolization; and (2) an injury to competition only arises when a competitor is injured.

We agree that the District Court erred in its legal analysis of what constitutes a competitive injury under § 202(a). As we noted above, Congress intended the PSA to have a broader scope than the antitrust laws. The antitrust requirement that monopoly power be acquired willfully and include the power to exclude competitors does not apply in the context of the PSA. By holding that § 202(a) requires proof that a practice has injured or is likely to injure competition, we have not required a showing that the defendant engaged in the unfair practice with the intent to cause the injury or other unlawful effect. Instead, the Growers need only prove that specific practices have the effect of injuring competition or are likely to do

so. Moreover, as we explain below, when analyzing whether a buyer's "monopsony" power injures competition, as in this case, the inquiry is somewhat different from the inquiry into whether a seller's monopoly power injures competition.

The record contains evidence that supports the Growers' contention that OK is a monopsony in the relevant regional market. A monopsony is "a condition of the market in which there is but one buyer for a particular commodity." *Telecor Commc'ns, Inc. v. Sw. Bell Tel. Co.*, 305 F.3d 1124, 1133 n. 4 (10th Cir.2002). Because the poultry market is vertically integrated, if OK is the only integrator in the area, as the Growers suggest, it may constitute a monopsony. The District Court's characterization of this logic as a "non sequitur" is therefore incorrect. We have previously acknowledged that a monopsony may exist when sellers are unable to find alternative buyers and must sell to a single purchaser.

Furthermore, we have acknowledged that, like a monopoly, a monopsony can threaten competition. "Economists ... have long recognized that market inefficiencies created by anticompetitive restraints on input markets can be as destructive of a free market economy (and therefore ultimately damaging to consumers) as restraints on output markets." According to economists, without competition from other buyers, a monopsonist will lower prices paid to sellers, which over time results in higher consumer prices. In other words, a poultry processor with monopsony power can fix and manipulate prices resulting in injury to both poultry producers (i.e., growers) and end-users (i.e., consumers). We explained why depression of prices potentially injures both producers and consumers in *Telecor*: "Some producers will either produce less or cease production altogether, resulting in less-than-optimal output of the product or service, and over the long run higher consumer prices, reduced product quality, or substitution of less efficient alternative products."

In addition, in the vertically integrated poultry market, a processor with a monopsony need not wait for poultry growers to produce less to increase prices on the wholesale market because the processor also controls the growers' supply. It may simply deliver fewer chicks to the growers, pay them the same low prices, and resell at the same or a higher price. When this happens, both the growers and the end-users are adversely affected. That is, by manipulating prices to suppliers, a monopsonist threatens to injure the end-users. "[M]onopsonies fall under antitrust purview because monopsonistic practices will eventually adversely affect consumers." "Tenth Circuit case law ... reject[s] the notion that a monopsony plaintiff must prove end-user impact." See also *Mandeville Island Farms v. Am. Crystal Sugar Co.*, 334 U.S. 219, 235, (1948) (holding that sugar beet growers had stated a valid monopsony claim under the Sherman Act even though they did not allege end-user impact). Hence, to establish that the practices of a monopsonist have injured or are likely to injure competition, a plaintiff does not have to be a competitor of the buyer or demonstrate that the buyer has improperly excluded other competitors. Instead, the plaintiff must show that the monopsonist's practices have caused or are likely to cause the anticompetitive effect associated with monopsonies, namely the arbitrary manipulation of market prices by unilaterally depressing seller prices on the input market with the effect (or likely effect) of increasing prices on the output market.

....

Although other circuits have noted that supply contracts between producers and processors of livestock can increase efficiency, they tend to focus on the benefits to the processor, rather than the market as a whole. See *Pickett*, 420 F.3d at 1283 ("[B]eing able to keep its processing plants operating at capacity has increased [the processor's] efficiency."); *IBP, Inc.*, 187 F.3d at 978 (concluding that the terms of the contracts allowed the processor "to have a more reliable and efficient method of obtaining a supply of cattle"). But even if supply contracts increase a processor's efficiency, they may threaten the efficiency of the relevant market when a monopsony is able to manipulate the market by depressing

producers' prices and increasing resale prices.¹¹ Hence, to demonstrate that a monopsonist has engaged in "unfair practices" under § 202(a), a seller must show that the buyer's practices threaten to injure competition by arbitrarily decreasing prices paid to sellers with the likely effect of increasing resale prices.

After reviewing the record in the case before us, we find that a genuine issue of material fact exists as to whether OK engaged in unfair practices in violation of § 202(a). In particular, we note that the record contains evidence of the classic monopsony injury, namely that OK is depressing the prices it pays the Growers and reselling at inflated prices. If OK does not compete with other buyers and completely controls the supply to its growers, it may be able to manipulate prices by controlling supply and demand. The record contains expert testimony identifying specific practices that are likely to injure competition in this way. For example, when wholesale prices are weak, OK delays delivery of chicks to growers, thereby decreasing the production of broilers by growers and causing prices to rise on the wholesale market (which eventually adversely affects consumers). Growers are also adversely affected because they produce (and therefore sell) fewer chickens. Furthermore, the record contains evidence that the Growers are paid the same under OK's pricing system during periods of reduced production as they are during periods of average and above average production. In other words, OK can decide to reduce production (to reap the benefits of higher prices on the wholesale market), but it does not have to pay its growers the higher prices that a reduction in supply would demand in a competitive market.

We are not suggesting that uncompetitive prices alone are unlawful. Courts have routinely noted that, short of predatory pricing, a monopolist's uncompetitive prices do not violate antitrust laws.¹² Moreover, although PSA claims against processors for practices associated with supply contracts have not enjoyed much success, these cases are factually different from the one before us. *See Pickett*, 420 F.3d 1272; *IBP, Inc.*, 187 F.3d 974. For example, the producers in these cases did not allege the existence of a monopsony. In addition, the supply contracts guaranteed producers a price tied to market prices, and overall, the arrangements created incentives and efficiencies that benefitted consumers. *Pickett*, 420 F.3d at 1284

We therefore conclude that, if the Growers prove that OK engaged in the arbitrary price manipulation described above with the effect or likely effect of depressing prices to the growers and reselling at increased prices, they may establish that OK engaged in unfair practices in violation of § 202(a). We are by no means suggesting that vertically integrated markets will always violate the PSA. Rather, we hold that § 202(a) is violated when a monopsonist engages in specific practices that result in or are likely to result in the anticompetitive effects the PSA was designed to prevent. To prove a violation,

¹¹ Although this case does not involve horizontal price-fixing by a group of buyers, OK's alleged practices manipulate the market in a similar fashion: "[M]arket manipulation in its various manifestations is implicitly an artificial stimulus applied to (or at times a brake on) market prices, a force which distorts those prices, a factor which prevents the determination of those prices by free competition alone." *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 223, (1940) (explaining price-fixing as a form of market manipulation). Like illegal price-fixing agreements, a monopsonist's use of supply contracts to manipulate the market poses the risk that prices will be determined by artificial, rather than market, forces.

¹² In acknowledging that an insurer could use its market power to "keep prices down," the court in *Kartell* noted that the lower prices the insurer paid doctors for their services did not result in higher consumer prices, 749 F.2d at 930–31, and that both parties "sit on opposite sides of the bargaining table," *id.* at 929 (quotation omitted). We are confronted with a potentially different arrangement in the case before us. The record contains evidence that OK's practices are likely to increase end-user prices. Moreover, the supply contracts with the Growers give OK complete control over the input market (i.e., the chickens available to OK for purchase), leaving the growers with little, if any, ability to bargain.

the Growers may not rely on the sum total of various practices that individually are not likely to injure competition, but must instead prove that specific practices have caused or are likely to cause injury.

....

The Tenth Circuit remanded the *Been v. OK Industries* case back to the district court. Additional discovery was allowed and a jury trial was conducted. The growers prevailed on their claim and were awarded \$21,141,975. The district court reduced the verdict to \$14,511,935. OK appealed to the Tenth Circuit, which affirmed the District Court. *Been v. O.K. Industries, Inc.*, 398 Fed. Appx. 382 (2010). OK Industries appealed to the Supreme Court. Certiorari was denied. *O.K. Industries v. Been*, 131 S.Ct. 2876 (2011).

While the growers in *Been* were successful, two subsequent cases produced big wins for the poultry processors at the circuit court level. In *Wheeler v. Pilgrim's Pride Corp.*, 591 F.3d 355 (5th Cir. 2009), the majority of the en banc panel held that a showing of an anti-competitive effect is necessary for an actionable claim under the PS&A, and that this showing was not made by the poultry grower who brought the case. A strong dissent, however, was filed by 7 judges. A link to this case is provided on www.FoodFarmingSustainability.com.

In *Terry v. Tyson*, 604 F.3d 272 (6th Cir. 2011), the Sixth Circuit Court of Appeals held that “only those practices that likely would have adversely affected competition” violated the provisions of P&SA that prohibited “unfair, unjustly discriminatory, or deceptive” practices or devices, and prohibited “undue or unreasonable preference or advantage.” The court held that the grower’s allegations about how the processor had harmed him individually did not show any larger anticompetitive effect. And, in a painful defeat for those involved in poultry grower associations, the court also held that organizations that are “principally involved with gathering information and educating poultry growers about their rights and assisting growers in enforcement of those rights by reporting violations of poultry processors to federal authorities” are not “association of producers” that are protected from retaliation under the Agricultural Fair Practices Act. The Court of Appeals let stand the lower court ruling that required the farmer to compensate Tyson Foods for its attorneys fees. A link to this case is provided on www.FoodFarmingSustainability.com.

Congressional concern about unfairness in agricultural contracting, particularly in the poultry industry have led to various attempts to amend the Packers & Stockyards Act. These attempts have been strongly resisted by the meat and poultry processing industries, who argue that their choice of contracting reflects the most modern, efficient approach to production. Nevertheless, the 2008 Farm Bill included several specific amendments and a specific directive to the USDA to promulgate regulations. As of this writing, these provisions are still embroiled in conflict.

Replace the excerpt from the Proposed Rules at pages 475-486 with the following text:

D. The 2008 Farm Bill Amendments to the Packers & Stockyards Act and the Battle over Regulation

Over the past decade, farmer groups have advocated for amendments to the P&SA, seeking a means to address what they perceive to be unfair dealing, particularly under production contracts in the poultry industry. They have also argued that increasing consolidation in the industry must be addressed in order to protect farmer's rights and the overall market for meat and poultry. As has been noted, some limited changes were enacted in the 2002 Farm Bill, and for the first time, "livestock" was given its own title (Title XI) in the *Food, Conservation, and Energy Act of 2008* (the 2008 Farm Bill), Pub. L. 110-234 (2008). Four specific amendments, reprinted below, were adopted.

2008 Amendments to the Packers & Stockyard Act

§ 197a. Production contracts

(a) Right of contract producers to cancel production contracts

(1) In general

A poultry grower or swine production contract grower may cancel a poultry growing arrangement or swine production contract by mailing a cancellation notice to the live poultry dealer or swine contractor not later than the later of--

- (A) the date that is 3 business days after the date on which the poultry growing arrangement or swine production contract is executed; or
- (B) any cancellation date specified in the poultry growing arrangement or swine production contract.

(2) Disclosure

A poultry growing arrangement or swine production contract shall clearly disclose--

- (A) the right of the poultry grower or swine production contract grower to cancel the poultry growing arrangement or swine production contract;
- (B) the method by which the poultry grower or swine production contract grower may cancel the poultry growing arrangement or swine production contract; and
- (C) the deadline for canceling the poultry growing arrangement or swine production contract.

(b) Required disclosure of additional capital investments in production contracts

(1) In general

A poultry growing arrangement or swine production contract shall contain on the first page a statement identified as "Additional Capital Investments Disclosure Statement", which shall conspicuously state that additional large capital investments may be required

of the poultry grower or swine production contract grower during the term of the poultry growing arrangement or swine production contract.

(2) Application

Paragraph (1) shall apply to any poultry growing arrangement or swine production contract entered into, amended, altered, modified, renewed, or extended after the date of the enactment of this section.

§ 197b. Choice of law and venue

(a) Location of forum

The forum for resolving any dispute among the parties to a poultry growing arrangement or swine production or marketing contract that arises out of the arrangement or contract shall be located in the Federal judicial district in which the principle part of the performance takes place under the arrangement or contract.

(b) Choice of law

A poultry growing arrangement or swine production or marketing contract may specify which State's law is to apply to issues governed by State law in any dispute arising out of the arrangement or contract, except to the extent that doing so is prohibited by the law of the State in which the principal part of the performance takes place under the arrangement or contract.

§ 197c. Arbitration

(a) In general

Any livestock or poultry contract that contains a provision requiring the use of arbitration to resolve any controversy that may arise under the contract shall contain a provision that allows a producer or grower, prior to entering the contract¹ to decline to be bound by the arbitration provision.

(b) Disclosure

Any livestock or poultry contract that contains a provision requiring the use of arbitration shall contain terms that conspicuously disclose the right of the contract producer or grower, prior to entering the contract, to decline the requirement to use arbitration to resolve any controversy that may arise under the livestock or poultry contract.

(c) Dispute resolution

Any contract producer or grower that declines a requirement of arbitration pursuant to subsection (b) has the right,² to nonetheless seek to resolve any controversy that may arise under the livestock or poultry contract, if, after the controversy arises, both parties consent in writing to use arbitration to settle the controversy.

(d) Application

Subsections (a)1 (b) and (c) shall apply to any contract entered into, amended, altered, modified, renewed, or extended after the date of the enactment of the Food, Conservation, and Energy Act of 2008.

(e) Unlawful practice

Any action by or on behalf of a packer, swine contractor, or live poultry dealer that violates this section (including any action that has the intent or effect of limiting the ability of a producer or grower to freely make a choice described in subsection (b)) is an unlawful practice under this chapter.

(f) Regulations

The Secretary shall promulgate regulations to--

- (1) carry out this section; and
- (2) establish criteria that the Secretary will consider in determining whether the arbitration process provided in a contract provides a meaningful opportunity for the grower or producer to participate fully in the arbitration process.

In addition to these amendments, the 2008 Farm included § 11006, represented as a Note at 7 U.S.C. § 228, that provides:

As soon as practicable, but not later than 2 years after the date of the enactment of this Act, the Secretary of Agriculture shall promulgate regulations with respect to the Packers and Stockyards Act, 1921 (7 U.S.C. 181 et seq.) to establish criteria that the Secretary will consider in determining—

- (1) whether an undue or unreasonable preference or advantage has occurred in violation of such Act;
- (2) whether a live poultry dealer has provided reasonable notice to poultry growers of any suspension of the delivery of birds under a poultry growing arrangement;
- (3) when a requirement of additional capital investments over the life of a poultry growing arrangement or swine production contract constitutes a violation of such Act; and
- (4) if a live poultry dealer or swine contractor has provided a reasonable period of time for a poultry grower or a swine production contract grower to remedy a breach of contract that could lead to termination of the poultry growing arrangement or swine production contract.

Following enactment of the 2008 Farm Bill, the USDA and the Department of Justice (DOJ) convened a series of five public workshops across the country to address ongoing concerns about competition in and regulation of the livestock and poultry industries. Secretaries Vilsack and Holder both participated, and significant public testimony was received. These workshops provided an opportunity for farm and industry stakeholders to air their concerns. Information about the workshop and the testimony received is available on the Department of Justice, Antitrust Division, Public Workshops. A final report was issued that described the testimony and categorized the concerns voiced, *Competition and Agriculture: Voices from the Workshops on Agriculture and Antitrust Enforcement in our 21st Century Economy and Thoughts on the Way Forward*, Dept. of Justice, Antitrust Div. (May 2012). This report is also available on the DOJ website. Links to the website and to the report are provided on www.FoodFarmingSustainability.com.

In mid-2010, the USDA GIPSA issued a proposed rule implementing the amendments to the P&SA and adhering to Congress' 2008 Farm Bill regulatory directive regarding the meaning of "undue or unreasonable preference." The proposed regulations also addressed the USDA's interpretation of conduct that would be "unfair, unjustly discriminatory or deceptive," relying on its general regulatory authority under the P&SA. *Implementation of Regulations Required Under Title XI of the Food, Conservation and Energy Act of 2008; Conduct in Violation of the Act*, 75 Fed. Reg. 35,338 (proposed June 22, 2010) (to be codified at 9 C.F.R. pt. 201).

Reaction to the proposed rule was strong and sharply divided. This reaction and the subsequent actions taken by Congress and the USDA are summarized in a Congressional Research Service Report devoted exclusively to the USDA GIPSA efforts to regulate. Excerpts from this report are included below, and readers can consult the full report for additional details regarding this historic and ongoing struggle.

Joel L. Greene
USDA's "GIPSA Rule" on Livestock and Poultry Marketing Practices
Congressional Research Service, CRS Report No. R41673
January 12, 2015

Proponents and opponents espoused widely differing interpretations of [the proposed rule]. According to USDA and supporters of the proposed rule, the regulations allowed for more effective and efficient enforcement of the P&S Act. According to USDA, the interaction between meat companies would be more transparent, as the proposed rule required meat packers and poultry processors to justify pricing differences and provide sample contracts to GIPSA. The proposed rule defined and gave examples of practices that GIPSA considered unfair that would violate the P&S Act. The proposed rule would bring fairness to marketing transactions, according to supporters.

Opponents of the proposed rule claimed that there would be unintended consequences that would adversely affect normal livestock and poultry marketing practices. They argued that the proposed rule amounted to the government stepping in to manage the day-to-day working of markets, which would lead to inefficiencies, increased litigation, and the loss of gains that the industry has experienced over the years.

The proposed rule was issued with a 60-day comment period. After considerable comment and feedback, the comment period was extended for an additional 90 days ending November 22, 2010. The proposed rule generated more than 61,000 public comments.

....

On November 3, 2011, USDA submitted a final rule and an interim final rule on livestock and poultry marketing practices to the Office of Management and Budget (OMB) for review. USDA informed stakeholders that the proposed rule had been modified in its final form. USDA indicated that the final rule would contain provisions covering the suspension of the delivery of birds, additional capital investment, breach of contract, and arbitration. USDA also noted that the final rule would include a section on sample swine and poultry contracts. In addition, USDA planned to publish a separate interim final rule on the poultry tournament pricing system. [The USDA further promised that some of the most controversial provisions of the proposed rule would not be included in the final rule.]

However, on November 18, 2011, the Consolidated and Further Continuing Appropriations Act, 2012 (P.L. 112-55) was signed into law and it curtailed USDA's ability to finalize its rule. Specifically, FY2012 funds could only be used to publish a final or interim final rule if the annual cost to the economy, which would include the livestock and poultry industries, is less than \$100 million. USDA's notification on November 3, 2011 to stakeholders indicated that the final rule and its interim final rule would have an economic impact under \$100 million. Opponents of the GIPSA rule believed the economic impact could reach into the billions of dollars and had strongly criticized USDA for not providing a comprehensive economic analysis of the proposed rule. In February 2011 testimony, Secretary of Agriculture Tom Vilsack had assured Members of Congress that USDA was analyzing public comments and incorporating them into additional economic analysis of the rule.

The FY2012 appropriations provision significantly restricted what USDA could put forward in its final rule. Section 721 prohibited USDA from using any funds to implement eight specific sections of the proposed rule, regardless of the annual cost to the economy of the final or interim final rule. Section 721 prohibited USDA from using funds to finalize definitions of the tournament system (§201.2(l)), competitive injury (§201.2(t)), and the likelihood of competitive injury (§201.2(u)). It also did not allow funding for USDA's proposed provision that recognized the possibility of a violation of the P&S Act without necessarily there being harm or likely harm to competition (§201.3(c)). The section prohibited USDA from using funds to issue criteria for determining unfair, unjust discriminatory and deceptive practices or devices (§201.210) and undue or unreasonable preferences or advantages (§201.211). Furthermore, USDA was prohibited from using funds for collecting sample swine and poultry contracts (§201.213) and finalizing regulations on the tournament system (§201.214).

Section 721 further required that USDA publish any rules in the Federal Register by December 9, 2011, and stated that no funding could be used to implement the published rules until 60 days after publication.

....

On December 9, 2011, USDA published its final rule on livestock and poultry marketing practices. *Implementation of Regulations Required Under Title XI of the Food, Conservation and Energy Act of 2008; Suspension of Delivery of Birds, Additional Capital Investment Criteria, Breach of Contract, and Arbitration*, 76 Fed. Reg. 76,874 (Dec. 9, 2011) (to be codified at 9 C.F.R. pt. 201). The rule went into effect on February 7, 2012.

The final rule included four provisions from the proposed rule: suspension of the delivery of birds (§201.215), additional capital investment (§201.216), remedy of breach of contract (§201.217, §201.218 in proposed rule), and arbitration (§201.218, §201.219 in proposed rule). The final rule also included three definitions—principal part of performance (§201.2(m)), additional capital investment (§201.2(n)), and suspension of delivery of birds (§201.2(o))—and a section on the applicability of the rule (§201.3). . .

USDA's final rule removed parts of the proposed rule that could be considered prescriptive, and focused on criteria [that the USDA could use to evaluate whether to take action]. Section 11006(1), which addressed "undue or unreasonable preference or advantage," is not included in the final rule because it is one of the sections of the proposed rule (§201.211) prohibited by P.L. 112-55. . . .

Suspension of Delivery of Birds

Suspension of the delivery of birds (§201.215) addressed Section 11006(2) of the 2008 farm bill, in which Congress required the Secretary of Agriculture to set criteria to determine if poultry growers are given reasonable notification of the suspension of the delivery of birds. Under the rule, USDA will examine whether or not poultry companies give poultry growers at least a 90-day notice that birds are not going to be delivered under their contract agreement. The notice should include the reason for not delivering birds, how long the suspension of delivery will last, and an estimate of when delivery will resume. Also, when considering whether or not a violation of the P&S Act has occurred, USDA may consider natural disasters or emergencies, such as bankruptcy. In its economic analysis of the provision, USDA estimated that the annual cost to the industry was \$75,480 based on the administrative cost of providing written notices to poultry growers.

Additional Capital Investment

The provision on additional capital investment (§201.216) addressed Section 11006(3) of the 2008 farm bill and establishes criteria that may be used to determine if contracts that require additional capital investment violate the P&S Act. The final rule included eight criteria which are similar to the proposed rule (see "Unfair Practices"), with small changes to account for public comments. The final rule moved the equipment part of the proposed rule on capital investments requirements and prohibitions (§201.217(c)) into Section 201.216. In the proposed rule, if new equipment investments were required, the poultry dealer or livestock contractor would have been required to provide adequate contract compensation incentives to the grower or producer. Under the final rule, if new equipment investment is required when previously approved equipment is functioning properly, compensation incentives are criteria to be considered in determining a violation of the P&S Act.

Remedy of Breach of Contract

The provision on remedy of a breach of contract (§201.217) addressed Section 11006(4) of the 2008 farm bill. The provision provided criteria that could be considered to determine if a poultry grower or livestock producer is given a reasonable time to remedy a breach of contract that could ultimately lead to the termination of a contract. The final rule provision was similar to the proposed provision . . . in that the criteria to be considered included whether or not growers or producers are given written notice with a description of the breach, the date of the breach, the means to remedy the breach, and the date by which it should be remedied. The proposed provision that set a 14-day period for growers or producers to rebut a breach of contract claim was dropped because it was viewed as a requirement instead of a criterion. This final rule provision was originally Section 208.218 of the proposed rule.

Arbitration

As in the proposed rule, the final rule on arbitration contained the provision that contracts include on the signature page a statement providing poultry growers and livestock producers the right to decline arbitration provisions in a contract . . . The required statement was similar to the proposed rule clause, except that in the final rule, absence of a signature is considered to constitute declining the arbitration

provision, instead of voiding the contract, as in the proposed rule. Also, in order to determine that growers and producers have a meaningful opportunity to participate in arbitration, USDA could consider if any costs and limits are disclosed to growers and producers and whether costs and time limits are reasonable. Also, USDA could consider whether or not growers and producers have a chance at reasonable discovery of information, if arbitration covers only issues relevant to the contract, and if arbitration findings follow applicable law and legal principles.

....

Reaction to Final Rule

Reaction to the final rule was mixed. Some proponents of the proposed rule described the final rule as a “start” or as “modest steps,” but also expressed disappointment that USDA was not able to finalize key provisions addressing anticompetitive issues in the livestock and poultry industries. For example, the National Farmers Union (NFU) said, “While the final rule is a good first step, it is certainly not a last step,” and said the rule “will make the livestock market at least somewhat more transparent and fair.” NFU noted that it was critical for USDA to implement the competitive injury provisions of the proposed rule. At the same time, proponents expressed disappointment that Congress prevented USDA from finalizing most of the proposed rule.

Opponents of the proposed rule were generally satisfied with the final rule, but also were concerned about provisions that were not finalized and what might eventually happen with those provisions. Provisions that define competitive injury, and set criteria for determining unfair, unjustly discriminatory, and deceptive practices and undue or unreasonable preferences or advantages were considered some of the most contentious of the proposed rule, and opponents argued that these provisions would lead to increased litigation between packers and poultry dealers and producers and growers. Opponents remained concerned that USDA could re-evaluate and re-propose these provisions in the future.

....

Provisions in FY2012, FY2013, and FY2014 appropriations acts prohibit USDA from finalizing the provisions on harm to competition and establishing criteria for determining unfair, unjustly discriminatory and deceptive practices or devices, and determining undue or unreasonable preferences or advantages, . . . prohibit USDA from spending funds to implement provisions on the tournament pricing system, . . . [and] prohibit USDA from finalizing its provision on livestock and poultry contracts.

There was considerable debate over this issue in the 2014 Farm Bill negotiations. The House bill included provisions that would have repealed the GIPSA rules altogether. That provision, however, was not included in the final conference agreement. *The Agricultural Act of 2014*, Pub. L. 113-79 (Feb. 7, 2014).

However, the 2015 Omnibus Appropriations law includes *Title VII: General Provisions* that “[s]ets forth permissible, restricted, and prohibited uses for funds provided by this Act and other appropriations Acts.” This title delineates 53 specific directives to USDA regarding implementation of various programs. Included is Sec. 731 which:

Prohibits the use of funds to advance or enforce specified proposed and existing Grain Inspection,

Packers and Stockyard Administration rules establishing criteria to determine whether conduct in the livestock and poultry industries violates provisions of the Packers and Stockyards Act, 1921 intended to ensure a fair marketplace.

Prohibits advancing the proposed rule entitled "Implementation of Regulations Required Under Title XI of the Food, Conservation and Energy Act of 2008; Conduct in Violation of the Act" unless the combined annual cost to the economy of the rules does not exceed \$100 million.

H.R.83 - Consolidated and Further Continuing Appropriations Act, 2015, Pub. L. No. 113-235 (Dec. 16, 2014).

Public attention to this appropriations restriction in the context of alleged unfair treatment of contract poultry growers by industry led the House Republicans to drop the above referenced provision from the 2016 Appropriations bill. *See, S. 1800 - Making appropriations for Agriculture, Rural Development, Food and Drug Administration, and Related Agencies programs for the fiscal year ending September 30, 2016, and for other purposes*, (July 16, 2015) (bill presented to the Senate, as approved by the Senate Appropriations Committee.) At this time, the bill has not yet passed the Senate.

Add the following to the Notes on pages 486-88

3. While the opponents of efforts to provide greater regulation of livestock and poultry contracting have been successful in Congress, the industry has not been portrayed favorably in the media. In 2014, an investigative reporter, Christopher Leonard, released the book, *THE MEAT RACKET: THE SECRET TAKEOVER OF AMERICA'S FOOD BUSINESS*. This book presents a very negative view on the rise of contract farming in the poultry industry, with a particular emphasis on Tyson Foods.

In late 2014, Craig Watts, a long time South Carolina poultry grower with Perdue Farms spawned a firestorm of videos and media reports by allowing filming inside his poultry house and openly voicing his complaints about the industry. *See, e.g.*, The Fusion documentary, *Cock Fight: Meet The Farmer Blowing The Whistle On Big Chicken*; PBS Original Fare, *Dirty Birds: A Story of Chickens in America*, and the new documentary, *Under Contract: Farming in the Fine Print*, (trailer available, scheduled for Fall 2015 release). Links are provided on www.FoodFarmingSustainability.com.

In May 2015, John Oliver, host of the popular HBO show, *Last Week Today* featured an episode entitled *Chickens* devoted exclusively to poultry contracting. It was posted to YouTube where it has now received over 3.5 million views. The segment itself received significant media attention.

In the episode, Oliver criticized the contracts as unfair and showed clips from the documentaries referenced above. He also discussed efforts by Democratic Congresswoman Marcy Kaptur from Ohio, who attempted to stop the GIPSA rider from being attached to the 2015 appropriations bill. When her efforts to block the rider failed, she sought to pass an amendment that would protect chicken farmers who speak out about contract conditions from industry retaliation. That amendment also failed. Oliver put out a call for viewers to contact members of Congress to support protection for growers. As noted above, the House removed the restrictive provision from the 2016 Appropriations Bill that it passed. When the final Bill passes, it will be posted to www.FoodFarmingSustainability.com.

4. Farm advocacy groups have published articles attempting to highlight the legal issues associated with agricultural contracting. *See, e.g.*, Farmers' Legal Action Group, Inc. (FLAG) webpage on Agricultural

Contracting and RAFI-USA, webpage on Contract Agriculture. Links to these webpages are provided on www.FoodFarmingSustainability.com.

5. Beginning in the winter of 2015, the poultry industry has battled an intense outbreak of avian influenza. By the end of May, over 45 million birds had been destroyed, either because they had the virus or were part of a virus eradication program. As of the end of May, Iowa's losses alone were close to 29 million chickens, turkeys and ducks destroyed and Minnesota had seen an estimated 8.3 million birds destroyed, mostly turkeys, at more than 100 farms. See Donnelle Eller, *Bird Flu Outbreak Raises Biosecurity Questions*, USA Today (May 30, 2015), linked on www.FoodFarmingSustainability.com.

The USDA Animal & Plant Health Inspection Service (APHIS) has an established avian influenza response plan, working with federal and state partners. Their approach uses a five-step protocol:

1. Quarantine—restricting movement of poultry and poultry-moving equipment into and out of the control area;
2. Eradicate—humanely euthanizing the affected flock(s);
3. Monitor region—testing wild and domestic birds in a broad area around the quarantine area;
4. Disinfect—killing the virus in the affected flock locations; and
5. Test—confirming that the poultry farm is AI virus-free.

Once a flock tests positive for avian influenza (AI), USDA or a State animal health official will complete a flock inventory to use for appraisal purposes. The flock will be depopulated as soon as possible using the most efficient method available. The carcasses will be disposed of using one of several methods. These include:

- in-house composting,
- outdoor on-site composting,
- burial,
- off-site composting,
- landfill, or
- incineration.

APHIS and State officials evaluate disposal options based on the size of the flock, local conditions, and applicable local, State, and Federal laws/regulations. There are different timelines associated with each disposal option. It is extremely important to follow all steps as outlined by disposal experts in order to minimize the risk of disease spread during the disposal process.

After all carcasses are removed from the barn, the cleaning and disinfection process begins. First, all organic material is removed. Then all areas and items are washed thoroughly with detergent, rinsed, and allowed to dry. Next, a disinfectant is applied and allowed to remain wet on the surfaces for the label-specified contact time. After the contact time, surfaces are rinsed again and allowed to air dry. These processes help eliminate any remaining virus.

After cleaning and disinfection, environmental samples are collected and tested to confirm that the virus is no longer present.

Premises must remain empty for a minimum of 21 days following these steps before being released from quarantine. After being released, the premises can be restocked.

USDA, APHIS, *Questions and Answers: Highly Pathogenic Avian Influenza* (May 2015). This Q&A is linked on www.FoodFarmingSustainability.com.

Egg production is generally conducted on a corporate model, with the flocks owned directly by the egg company. The industry is highly concentrated, was reported by the American Egg Board.

Presently, there are approximately 62 egg producing companies with 1 million-plus hens that represents approximately 86 percent of total production and 17 companies with greater than 5 million hens. Today, there are approximately 181 egg producing companies with flocks of 75,000 hens or more. These companies represent about 99 percent of all the hens in the United States.

American Egg Board, *About the U.S. Egg Industry* website (link available on www.FoodFarmingSustainability.com).

In contrast, the chicken broiler and turkey production involved in the outbreak have been raised under production contracts. Standard poultry production contracts provide that while the grower owns the birds while alive, the grower is responsible for the dead birds. In an article comparing broiler contracts, Professor Neil Hamilton wrote,

One obligation or duty placed on growers by all broiler contracts is the obligation to promptly remove and dispose of dead birds. For example, the Company B contract provides that the grower agrees, “To provide for prompt and proper disposal of all dead and cull poultry resulting from normal mortalities and/or catastrophic loss in a manner meeting the requirements of federal, state, and local regulations and codes.”

Neil H. Hamilton, *Broiler Contracting in the United States — a Current Contract Analysis Addressing Legal Issues and Grower Concerns*, 7 DRAKE J. AGRIC. L. 43 (2002).

In the case of poultry that are killed under APHIS disease eradication guidelines, there is an indemnity that is paid through USDA APHIS. The applicable indemnity regulations require payment to owners of poultry, but as noted, many poultry producers are contract growers and are not the owners of the birds.

For an excellent summary of the Avian Flu outbreak and the government response, see Joel L. Greene, *Update on the Highly-Pathogenic Avian Influenza Outbreak of 2014-2015*, Cong. Res. Serv. Rep. No. R44114 (July 20, 2015). It is available on www.FoodFarmingSustainability.com.

VIII. Animal Welfare and Farm Animals Raised for Food

A. Efforts to Impose Welfare Standards on Livestock Production

1. Citizen Initiatives

2. Defining "Humane" by Regulation

B. Humane Slaughter Standards

Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Animal Welfare](#).

Update

Animal Law continues to grow as an emerging area of interest in law schools, in practice, and in scholarship. The humane treatment of farm animals is an advocacy issue that has continued to spark controversy and to raise questions about industrialized agricultural livestock production.

The following resources provide a general update to this chapter. In addition, the FFS Resources website includes the *Animal Welfare Law* materials from the 2014 American Agricultural Law Association Food Law Update.

1. Citizen Initiatives and State Legislation

Replace Notes, page 495 with the following new text:

1. There was an unsuccessful attempt to stop the implementation of California's Proposition 2. *See Missouri v. Harris*, No. 2:14-cv-00341-KJM-KJN, Oct. 2, 2014, 2014 WL4961473, (E.D. Cal.), dismissed, with prejudice, multi-state suit for declarative and injunctive relief to enjoin enforcement of AB 1327 as 1) preempted by the federal Egg Products Inspection Act; and 2) violative of the dormant Commerce Clause; no standing under *parens patriae* doctrine.

2. The use of gestation crates for sows is becoming increasingly controversial. These crates are metal enclosures that require the sow to face forward and are not large enough for her to turn around. They have been banned in some states, either along with a ban on battery cages for chickens or as a separate measure. These restrictions have occurred as a result of citizen initiatives, e.g., Arizona and Florida, or as legislation, e.g., Michigan, Maine, Colorado, and Oregon. At this time, nine states have outlawed the use of gestation crates for sow production; five have prohibited battery cages for chickens.

As an indication of how a consideration of farming practices has been elevated to a major point of controversy, presidential politics was alleged in Governor Christie's decision to veto a New Jersey bill that would have banned gestation crates. One poll indicated that 9 out of 10 New Jersey citizens supported the legislation. However, in Iowa, these types of restrictions are not popular with the influential livestock industry. A connection was drawn between the Governor's veto and his presidential aspirations, with the Iowa primary an important first step toward the nomination. *See*, Mark Bittman,

Christie's Pig-Crate Politics, Opinion Pages, NY TIMES (Dec. 2, 2014). A link is available on www.FoodFarmingSustainability.com.

3. As noted in Chapter 2, *Agriculture & the Environment*, “Right to Farm” state constitutional amendments in North Dakota and Missouri appear to have been largely driven by the fear of state regulation of farming practices. North Dakota’s constitution now provides that:

The right of farmers and ranchers to engage in modern farming and ranching practices shall be forever guaranteed in this state. No law shall be enacted which abridges the right of farmers and ranchers to employ agricultural technology, modern livestock production, and ranching practices.

Constitution of the State of North Dakota, Article XI, General Provisions, § 29.

The Missouri state constitution now provides:

That agriculture which provides food, energy, health benefits and security is the foundation and stabilizing force of Missouri’s economy. To protect this vital sector of Missouri’s economy, the right of farmers and ranchers to engage in farming and ranching practices shall forever be guaranteed in this state, subject to duly authorized powers, if any, conferred by article VI of the Constitution of Missouri.

Constitution of the State of Missouri, Article I, § 35.

Update to Note 2, page 515

The CRS Report on legislation related to the humane treatment of farm animals was updated and is available at Tadlock Cowan, *Humane Treatment of Farm Animals: Overview and Issues*, Cong. Res. Serv. Rep. RS21978 (May 9, 2011). It is available on www.FoodFarmingSustainability.com.

Replace Note 3 on page 516-17 and with the following new text :

3. Driven largely by consumer demand, a number of producers, food retailers and food processors have sought to impose stricter animal welfare standards such as McDonald’s and food service suppliers such as Aramark, have addressed the issue with their suppliers, announcing their intent to phase out the use of gestation crates within several years. Processors such as Smithfield, ConAgra, Hormel, and Cargill indicated their intent as well. On May 22, 2015, Walmart announced its new animal welfare policy, and it included support for the “globally recognized ‘Five Freedoms’ of animal welfare.” Walmart U.S. Announcement, *New Animal Welfare and Antibiotics Positions: Company Outlines Expectations for Suppliers to Walmart U.S. and Sam’s Club U.S., as Part of Commitment to Sustainable Supply Chain*, Walmart, News and Views website (May 22, 2015) (linked on www.FoodFarmingSustainability.com).

The “Five Freedoms” are the standards adopted by the European Union as policy guidance for setting minimum animal welfare guidelines. They are:

- Freedom from hunger and thirst: by ready access to fresh water and a diet to maintain full health and vigour;

- Freedom from discomfort: by providing an appropriate environment including shelter and a comfortable resting area;
- Freedom from pain, injury and disease: by prevention or rapid diagnosis and treatment;
- Freedom to express normal behaviour: by providing sufficient space, proper facilities and company of the animal's own kind;
- Freedom from fear and distress: by ensuring conditions and treatment which avoid mental suffering.

The statement announcing the Five Freedoms, archived from the Farm Animal Welfare Council of the United Kingdom is posted on www.FoodFarmingSustainability.com.

The HSUS website contains a collection of scientific research and white papers on animal welfare topics including research on animal behavior, sentience, and normal behavioral patterns. HSUS, Farm Animal Welfare, *Science and Research*. This resource is linked at www.FoodFarmingSustainability.com.

Other large corporate entities have raised similar concerns about the welfare of the animals in livestock production.

The Humane Society of the U.S. (HSUS) has worked with representatives from industry in an attempt to improve the conditions of farmed animals. See, e.g., the controversial partnership between HSUS and the United Egg Producer's in their unsuccessful effort to promote a uniform, national cage production standard for the U.S. egg industry as part of the 2014 Farm Bill. See Jackqui Fatka, *UEP Abandons HSUS Egg Deal*, FARM FUTURES (Feb. 21, 2014) linked on www.FoodFarmingSustainability.com.

4. The filming of videos inside animal production facilities to expose animal cruelty has resulted in a number of criminal prosecutions for animal cruelty and very bad publicity for the livestock and dairy industries. See, e.g., Mercy for Animals video of Wiese Brothers Dairy Farm, Greenleaf, Wisconsin, where evidence of dairy cow abuse was the basis for animal cruelty charges against 4 employees. Katie Delong, *Animal Cruelty: Two more convictions Tied to Wiese Bros. Farm*, Fox6News.com (May 6, 2014), linked at www.FoodFarmingSustainability.com.

This type of video recording has been controversial in the agricultural community. The videos are often taken by animal welfare advocates who have taken an employment position inside the facility or reporters who are investigating the facility. To prevent this practice, state statutes have been enacted to make this type of video recording illegal in a number of farm states. These bills are widely referred to as "ag-gag" laws. They are generally designed to criminalize the practice of anyone who uses cameras or video recordings in agricultural facilities without permission. Seven states, Idaho, Iowa, North Dakota, Utah, Kansas, Montana and Missouri have successfully passed ag-gag laws. They have been proposed in over twenty states. See *Ag-Gag Bills at the State Level*, The American Society for the Prevention of Cruelty to Animals, linked on www.FoodFarmingSustainability.com.

The states that have passed ag-gag statutes use various prosecution and enforcement mechanisms. For example, Idaho's ag-gag law, I.C. § 18-7042, provides:

A person commits the crime of interference with agricultural production if the person knowingly. . . [e]nters an agricultural production facility that is not open to the public and, without the facility owner's express consent or pursuant to judicial process or statutory authorization, makes audio or video recordings of the conduct of an agricultural production facility's operations. . . . A person found guilty of committing the crime of interference with agricultural production shall be guilty of a

misdemeanor and shall be punished by a term of imprisonment of not more than one (1) year or by a fine not in excess of five thousand dollars (\$5,000), or by both such fine and imprisonment. . . . In addition to any other penalty imposed for a violation of this section, the court shall require any person convicted, found guilty or who pleads guilty to a violation of this section to make restitution to the victim of the offense. . . .

The Animal Legal Defense Fund along with other organizations filed a lawsuit challenging the constitutionality of the ag-gag statutes Idaho and a similar suit in Utah. More information about these lawsuits can be found on the Animal Legal Defense Fund Ag-Gag page, linked on www.FoodFarmingSustainability.com. A copy of the complaint is also available there.

5. The New York Times published an investigative report about the harsh mistreatment of farm animals at the government funded U.S. Meat Animal Research Center in Nebraska. Michael Moss, *U.S. Research Lab Lets Livestock Suffer in Quest for Profit: Animal Welfare at Risk in Experiments for Meat Industry*, NY TIMES (January 19, 2015) (linked on www.FoodFarmingSustainability.com). The article reveals several startling discoveries of animal mistreat at the research facility. Below is an excerpt of some of his discoveries:

Pigs are having many more piglets — up to 14, instead of the usual eight — but hundreds of those newborns, too frail or crowded to move, are being crushed each year when their mothers roll over. Cows, which normally bear one calf at a time, have been retooled to have twins and triplets, which often emerge weakened or deformed, dying in such numbers that even meat producers have been repulsed. Then there are the lambs. In an effort to develop “easy care” sheep that can survive without costly shelters or shepherds, ewes are giving birth, unaided, in open fields where newborns are killed by predators, harsh weather and starvation.

Id.

The Animal Welfare Act was enacted to prevent animal mistreatment. However, as the article notes, farm animals used in research to benefit agriculture are exempt from the Animal Welfare Act. In response to the article on February 5, 2015, members of Congress from both parties introduced a bill, called the Aware Act, which would extend the Animal Welfare Act to cover all federal government facilities, including the U.S. Meat Animal Research Center. It was referred to the Subcommittee on Livestock and Foreign Agriculture on February 27, 2015, and as of this date, no further action has been taken on it. Information about the Act is linked on www.FoodFarmingSustainability.com.

USDA Secretary Vilsack ordered a report to determine the animal care and well being at the U.S. Meat Animal Research Center. Surprisingly, the report did not find any evidence of animal mistreatment during the investigating committees three-day visit to the research center. However, the report did find that the Research Center’s review committee, which is required to hold regular meetings and approve and reject each animal experiment after evaluating animal safety, was not adequately fulfilling its intended role. A moratorium was put on new experimental projects. The report contains several recommendations to strengthen the committee’s oversight and Secretary Vilsack is currently reviewing public comments on the report. *Findings and Recommendations on the Animal Care and Well-Being at the U.S. Meat Animal Research Center*, Report to the Secretary of Agriculture and the REE Under Secretary Pre-Public Hearing Report (March 9, 2015). The Report can be found on the USDA website and is posted on www.FoodFarmingSustainability.com.

In June 2015, the Research Center announced that it had met all of the recommendations in the Report and that the moratorium on new research had been lifted. Nicholas Bergin, *Meat Animal Research Center*

Says It Has Addressed Animal Care Concerns, LINCOLN JOURNAL STAR (June 16, 2015). It is reported that a USDA OIG Report is being undertaken.

6. The use of certain pharmaceuticals in livestock production can have animal welfare significance. The beta agonists Ractopamine and Zilmax are particularly controversial. Both have been associated with a variety of adverse incident reports including trembling, lameness, inability to walk or rise, reluctance to move, stiffness, hyperactivity, severe hoof disorders, and difficulty breathing. For more on this issue, including cites to current litigation, see Susan Schneider, *Beyond the Food We Eat: Animal Drugs in Livestock Production*, 25 DUKE ENVIRONMENTAL LAW & POLICY FORUM 227 (2015). This article is available on www.FoodFarmingSustainability.com.

Horse slaughter

Update to Note 3, page 533

Congress lifted the ban on the funding of inspections at horse slaughterhouses in the agricultural appropriations bill that was signed by President Obama in November 2011. Although a number of states still ban horse slaughter, slaughterhouses have been proposed in New Mexico, Missouri and Oregon, and laws easing state restrictions have been proposed in Montana, North Dakota and Wyoming, with hearings held in Texas. A New Mexico cattle slaughterhouse has fought to convert its operation to horse slaughter, but was delayed by litigation. In 2014, Congress again cut funding for inspections at horse slaughterhouses in its appropriations bill.

Additional Resources:

- GAO Report, *Horse Welfare: Action Needed to Address Unintended Consequences from Cessation of Domestic Slaughter*, GAO-11-228 (Jun 22, 2011).
- Tadlock Cowan, *Horse Slaughter Prevention Bills and Issues*, Cong. Res. Serv. Rep. No. RS21842 (June 28, 2013).

Both documents are posted on www.FoodFarmingSustainability.com.

IX. Biotechnology and Agricultural Law

- A. An Introduction to Agricultural Biotechnology and its Regulation**
- B. The Patenting of Genetically-Engineered Seeds
 - 1. Patenting Live, Human-made Organisms
 - 2. Utility Patent Rights, the Plant Variety Protection Act, & the Plant Patent Act
 - 3. Enforcing Patent Rights in Seed**
 - 4. Consolidation in the Seed Industry
- C. Challenge to the Approval Process for New Genetically Engineered Seeds
- D. The Labeling of Genetically Engineered Food Products**
 - 1. General Principles
 - 2. Case Study: Bovine Somatotropin
- E. International Trade and Genetically Engineered Products**

Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Biotechnology & Agricultural Law](#).

A. An Introduction to Agricultural Biotechnology and its Regulation

The CRS Report excerpted on pages 535-541 has been updated.

The current version is available on www.FoodFarmingSustainability.com. Tadlock Cowan, *Agricultural Biotechnology: Background and Recent Issues*, Cong. Res. Serv. Rep. No. RL-32809 (June 18, 2011).

Add to Note 1, page 549-50

On January 16, 2009 APHIS reopened the comment period, which ran until the end of June 2009. APHIS received over 88,300 comments, and on February 27, 2015 APHIS announced it was withdrawing the proposed rule. *APHIS Announces Withdrawal of 2008 Proposed Rule for Biotechnology Regulations*, USDA, APHIS (Feb. 27, 2015) (available on USDA APHIS website and posted on www.FoodFarmingSustainability.com).

On July 2, 2015, the White House issued a memorandum directing the three Federal agencies involved in regulating biotechnology products, the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), and the Department of Agriculture (USDA), to “update the Coordinated Framework, develop a long-term strategy to ensure that the system is prepared for the future products of biotechnology, and commission an expert analysis of the future landscape of biotechnology products to support this effort.” See, *The White House’s Office of Science and Technology Policy Announces Initiative to Modernize the Federal Regulatory System for the Products of Biotechnology*, USDA APHIS (July 8, 2015) (available on USDA APHIS website and posted on www.FoodFarmingSustainability.com).

According to the Whitehouse announcement,

The goal of the effort is to ensure public confidence in the regulatory system and improve the transparency, predictability, coordination, and, ultimately, efficiency of the biotechnology regulatory system. Here is a bit more detail about the effort’s three components:

First, the Administration will update the Coordinated Framework, after public input, by clarifying the current roles and responsibilities of the EPA, USDA, and FDA in the regulatory process. This update will help clarify which biotechnology product areas are within the authority and responsibility of each agency and outline how the agencies work together to regulate products that may fall under the authorities of multiple agencies.

Second, the Administration will develop a long-term strategy, after public input, to ensure that the Federal regulatory system is well-equipped to assess efficiently any risks associated with the future products of biotechnology. This will include performing periodic horizon-scanning of new biotech products, coordinating support for the science that informs regulatory activities, developing tools to assist small businesses as they navigate the regulatory system, and creating user-friendly digital tools for presenting the agencies' authorities, practices, and basis for decision-making.

Third, the Administration will commission an outside, independent analysis of the future landscape of the products of biotechnology. The Administration has already asked the National Academies of Sciences, Engineering, and Medicine to conduct such an analysis.

John P. Holdren, Howard Shelanski, Darci Vetter, and Christy Goldfuss, *Improving Transparency and Ensuring Continued Safety in Biotechnology*, The White House Office of Science and Technology Policy website (July 02, 2015) (linked on www.FoodFarmingSustainability.com).

The Whitehouse memorandum directed to the agencies is posted on www.FoodFarmingSustainability.com. John P. Holdren, et al, *Memorandum For Heads Of Food And Drug Administration, Environmental Protection Agency, and Department Of Agriculture*, RE: Modernizing the Regulatory System for Biotechnology Products (July 2, 2015).

The USDA APHIS maintains a Biotechnology News website (BRS) that posts regulatory developments as they occur, linking to associated documents. This website is linked on www.FoodFarmingSustainability.com with the developments from January 1 – July 31, 2015 listed.

Add additional Notes, page 550

3. The approval of genetically engineered (GE) salmon as been before the agencies in the U.S. and Canada for a number of years. For an overview of the approval process and concerns raised, see Harold F. Upton and Tadlock Cowan, *Genetically Engineered Salmon*, Cong. Res. Serv. Rep. R43518 (Apr. 30, 2014) posted on www.FoodFarmingSustainability.com.

AquaBounty Technologies, the developers of genetically engineered salmon, have approval from Environment Canada to commercially produce GE salmon eggs at a hatchery located in Canada. AquaBounty has applied to Health Canada to review the safety of the salmon in order for it to sell GE salmon for human consumption. Health Canada is still reviewing the application. *See*, Keith Doucette, *U.S. Company Applies To Sell Genetically Modified Fish In Canada*, (March 11, 2014). As in the U.S., there is vigorous opposition in Canada. *See, e.g.*, Canadian Biotechnology Action Network (website linked on www.FoodFarmingSustainability.com).

The sale of genetically engineered salmon for human consumption has yet to be approved by The Food

and Drug Administration. The FDA reports on its website:

FDA has issued for public comment a draft environmental assessment (EA) related to the agency's review of an application concerning AquaAdvantage Salmon, a genetically engineered Atlantic salmon. FDA's preliminary finding is that an approval of this application, under the specific conditions proposed in the application, would not have a significant impact (FONSI) on the U.S. environment. AquaAdvantage Salmon is a product of AquaBounty Technologies (AquaBounty), of Maynard, Mass.

FDA, Animal & Veterinary, Development & Approval Process, Genetic Engineering, Genetically Engineered Animals webpage, *AquaAdvantage Salmon* (last updated May 18, 2015) (linked on www.FoodFarmingSustainability.com).

The release of a redacted draft of the Canadian government's review of the application for approval of AquaAdvantage salmon added further fuel to U.S. and Canadian opposition to the approval of the G.E. salmon. The draft Canadian review document, as published by Friends of the Earth, is linked on www.FoodFarmingSustainability.com. It reports that the AquaAdvantage salmon are more susceptible to a specific type of disease-causing bacteria than non-GE domesticated salmon and that they exhibit diminished growth rates compared to industry claims. *Environmental and Indirect Human Health Risk Assessment of the AquaAdvantage Salmon* (Draft in Revisions, Protected B), Office of Aquatic Biotechnology, Department of Fisheries and Oceans Canada, (July 2, 2013) (available on Friends of the Earth website and linked on www.FoodFarmingSustainability.com).

In May 2015, Food & Water Watch, Center for Food Safety and Friends of the Earth wrote to FDA disclosing the Canadian draft review document and requesting that the FDA deny AquaBounty's approval or at least to prepare of full Environmental Impact Statement (EIS) making every effort to collaborate with Canadian government officials. The letter is provided on www.FoodFarmingSustainability.com.

More than 60 retailers, including Target, Whole Foods, Trader Joe's, Aldi, H-E-B, Safeway and Kroger have announced their commitment to not sell GE salmon if approved for human consumption. See, Kate Colwell, *Costco Members, Fishermen, Environmental And Labor Groups Demand Costco Say No To GMO Salmon* (Jun. 25, 2015) (linked on www.FoodFarmingSustainability.com).

For a review of the environmental issues associated with genetically engineered seafood and fish, see Eugene H. Buck, *Genetically Engineered Fish and Seafood: Environmental Concerns*, Cong. Res. Serv. Rep. No. R41486 (Jan. 23, 2015) (posted on www.FoodFarmingSustainability.com).

4. In recent years, USDA APHIS has approved many petitions for nonregulated status, i.e., allowing the production and sale of a genetically engineered product. The USDA APHIS maintains a Biotechnology News website (BRS) that posts regulatory developments as they occur, linking to associated documents. This website is linked on www.FoodFarmingSustainability.com with the developments from January 1 – July 31, 2015 listed.

Add the following new case to the text on page 581, after *Monsanto v. David*

**Bowman v. Monsanto Co.
133 S.Ct. 1761 (2013).**

JUSTICE KAGAN delivered the opinion of the Court.

Under the doctrine of patent exhaustion, the authorized sale of a patented article gives the purchaser, or any subsequent owner, a right to use or resell that article. Such a sale, however, does not allow the purchaser to make new copies of the patented invention. The question in this case is whether a farmer who buys patented seeds may reproduce them through planting and harvesting without the patent holder's permission. We hold that he may not.

I

Respondent Monsanto invented a genetic modification that enables soybean plants to survive exposure to glyphosate, the active ingredient in many herbicides (including Monsanto's own Roundup). Monsanto markets soybean seed containing this altered genetic material as Roundup Ready seed. Farmers planting that seed can use a glyphosate-based herbicide to kill weeds without damaging their crops. Two patents issued to Monsanto cover various aspects of its Roundup Ready technology, including a seed incorporating the genetic alteration. . .

Monsanto sells, and allows other companies to sell, Roundup Ready soybean seeds to growers who assent to a special licensing agreement. That agreement permits a grower to plant the purchased seeds in one (and only one) season. He can then consume the resulting crop or sell it as a commodity, usually to a grain elevator or agricultural processor. . . But under the agreement, the farmer may not save any of the harvested soybeans for replanting, nor may he supply them to anyone else for that purpose. These restrictions reflect the ease of producing new generations of Roundup Ready seed. Because glyphosate resistance comes from the seed's genetic material, that trait is passed on from the planted seed to the harvested soybeans: Indeed, a single Roundup Ready seed can grow a plant containing dozens of genetically identical beans, each of which, if replanted, can grow another such plant—and so on and so on. The agreement's terms prevent the farmer from co-opting that process to produce his own Roundup Ready seeds, forcing him instead to buy from Monsanto each season.

Petitioner Vernon Bowman is a farmer in Indiana who, it is fair to say, appreciates Roundup Ready soybean seed. He purchased Roundup Ready each year, from a company affiliated with Monsanto, for his first crop of the season. In accord with the agreement just described, he used all of that seed for planting, and sold his entire crop to a grain elevator (which typically would resell it to an agricultural processor for human or animal consumption).

Bowman, however, devised a less orthodox approach for his second crop of each season. Because he thought such late-season planting "risky," he did not want to pay the premium price that Monsanto charges for Roundup Ready seed. He therefore went to a grain elevator; purchased "commodity soybeans" intended for human or animal consumption; and planted them in his fields.¹ Those soybeans

¹ Grain elevators, as indicated above, purchase grain from farmers and sell it for consumption; under federal and state law, they generally cannot package or market their grain for use as agricultural seed. See 7 U. S. C. §1571; Ind. Code §15-15-1-32 (2012). But because soybeans are themselves seeds, nothing (except, as we shall see, the law) prevented Bowman from planting, rather than consuming, the product he bought from the grain

came from prior harvests of other local farmers. And because most of those farmers also used Roundup Ready seed, Bowman could anticipate that many of the purchased soybeans would contain Monsanto's patented technology. When he applied a glyphosate-based herbicide to his fields, he confirmed that this was so; a significant proportion of the new plants survived the treatment, and produced in their turn a new crop of soybeans with the Roundup Ready trait. Bowman saved seed from that crop to use in his late-season planting the next year—and then the next, and the next, until he had harvested eight crops in that way. Each year, that is, he planted saved seed from the year before (sometimes adding more soybeans bought from the grain elevator), sprayed his fields with glyphosate to kill weeds (and any non-resistant plants), and produced a new crop of glyphosate-resistant—i.e., Roundup Ready—soybeans.

After discovering this practice, Monsanto sued Bowman for infringing its patents on Roundup Ready seed. Bowman raised patent exhaustion as a defense, arguing that Monsanto could not control his use of the soybeans because they were the subject of a prior authorized sale (from local farmers to the grain elevator). The District Court rejected that argument, and awarded damages to Monsanto of \$84,456. The Federal Circuit affirmed. It reasoned that patent exhaustion did not protect Bowman because he had “created a newly infringing article.” 657 F. 3d, at 1348. The “right to use” a patented article following an authorized sale, the court explained, “does not include the right to construct an essentially new article on the template of the original, for the right to make the article remains with the patentee.” *Ibid.* (brackets and internal quotation marks omitted). Accordingly, Bowman could not “replicate” Monsanto's patented technology by planting it in the ground to create newly infringing genetic material, seeds, and plants.” *Ibid.*

We granted certiorari to consider the important question of patent law raised in this case, and now affirm.

II

The doctrine of patent exhaustion limits a patentee's right to control what others can do with an article embodying or containing an invention.² Under the doctrine, “the initial authorized sale of a patented item terminates all patent rights to that item.” *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U. S. 617, 625 (2008). And by “exhaust[ing] the [patentee's] monopoly” in that item, the sale confers on the purchaser, or any subsequent owner, “the right to use [or] sell” the thing as he sees fit. *United States v. Univis Lens Co.*, 316 U. S. 241, 249–250 (1942). We have explained the basis for the doctrine as follows: “[T]he purpose of the patent law is fulfilled with respect to any particular article when the patentee has received his reward . . . by the sale of the article”; once that “purpose is realized the patent law affords no basis for restraining the use and enjoyment of the thing sold.” *Id.*, at 251.

Consistent with that rationale, the doctrine restricts a patentee's rights only as to the “particular article” sold, . . . ; it leaves untouched the patentee's ability to prevent a buyer from making new copies of the patented item. “[T]he purchaser of the [patented] machine . . . does not acquire any right to construct another machine either for his own use or to be vended to another.” *Mitchell v. Hawley*, 16 Wall. 544, 548 (1873); see *Wilbur-Ellis Co. v. Kuther*, 377 U. S. 422, 424 (1964) (holding that a purchaser's

elevator.

² The Patent Act grants a patentee the “right to exclude others from making, using, offering for sale, or selling the invention.” 35 U. S. C. §154(a)(1); see §271(a) (“[W]hoever without authority makes, uses, offers to sell, or sells any patented invention . . . infringes the patent”).

“reconstruction” of a patented machine “would impinge on the patentee’s right ‘to exclude others from making’ . . . the article” (quoting 35 U. S. C. §154 (1964 ed.)). Rather, “a second creation” of the patented item “call[s] the monopoly, conferred by the patent grant, into play for a second time.” *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U. S. 336, 346 (1961). That is because the patent holder has “received his reward” only for the actual article sold, and not for subsequent recreations of it. *Univis*, 316 U. S., at 251. If the purchaser of that article could make and sell endless copies, the patent would effectively protect the invention for just a single sale. Bowman himself disputes none of this analysis as a general matter: He forthrightly acknowledges the “well settled” principle “that the exhaustion doctrine does not extend to the right to ‘make’ a new product.”

Unfortunately for Bowman, that principle decides this case against him. Under the patent exhaustion doctrine, Bowman could resell the patented soybeans he purchased from the grain elevator; so too he could consume the beans himself or feed them to his animals. Monsanto, although the patent holder, would have no business interfering in those uses of Roundup Ready beans. But the exhaustion doctrine does not enable Bowman to make additional patented soybeans without Monsanto’s permission (either express or implied). And that is precisely what Bowman did. He took the soybeans he purchased home; planted them in his fields at the time he thought best; applied glyphosate to kill weeds (as well as any soy plants lacking the Roundup Ready trait); and finally harvested more (many more) beans than he started with. That is how “to ‘make’ a new product,” to use Bowman’s words, when the original product is a seed. *See*, WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 1363 (1961) (“make” means “cause to exist, occur, or appear,” or more specifically, “plant and raise (a crop)”). Because Bowman thus reproduced Monsanto’s patented invention, the exhaustion doctrine does not protect him.³

Were the matter otherwise, Monsanto’s patent would provide scant benefit. After inventing the Roundup Ready trait, Monsanto would, to be sure, “receiv[e] [its] reward” for the first seeds it sells. *Univis*, 316 U. S., at 251. But in short order, other seed companies could reproduce the product and market it to growers, thus depriving Monsanto of its monopoly. And farmers themselves need only buy the seed once, whether from Monsanto, a competitor, or (as here) a grain elevator. The grower could multiply his initial purchase, and then multiply that new creation, ad infinitum—each time profiting from the patented seed without compensating its inventor. Bowman’s late-season plantings offer a prime illustration. After buying beans for a single harvest, Bowman saved enough seed each year to reduce or eliminate the need for additional purchases. Monsanto still held its patent, but received no gain from Bowman’s annual production and sale of Roundup Ready soybeans. The exhaustion doctrine is limited to the “particular item” sold to avoid just such a mismatch between invention and reward.

Our holding today also follows from *J. E. M. Ag Supply, Inc. v. Pioneer Hi-Bred Int’l, Inc.*, 534 U. S. 124 (2001). We considered there whether an inventor could get a patent on a seed or plant, or only a certificate issued under the Plant Variety Protection Act (PVPA), 7 U. S. C. §2321 et seq. We decided a

³ This conclusion applies however Bowman acquired Roundup Ready seed: The doctrine of patent exhaustion no more protected Bowman’s reproduction of the seed he purchased for his first crop (from a Monsanto-affiliated seed company) than the beans he bought for his second (from a grain elevator). The difference between the two purchases was that the first—but not the second—came with a license from Monsanto to plant the seed and then harvest and market one crop of beans. We do not here confront a case in which Monsanto (or an affiliated seed company) sold Roundup Ready to a farmer without an express license agreement. For reasons we explain below, we think that case unlikely to arise. *See infra*, at 9. And in the event it did, the farmer might reasonably claim that the sale came with an implied license to plant and harvest one soybean crop.

patent was available, rejecting the claim that the PVPA implicitly repealed the Patent Act's coverage of seeds and plants. On our view, the two statutes established different, but not conflicting schemes: The requirements for getting a patent "are more stringent than those for obtaining a PVP certificate, and the protections afforded" by a patent are correspondingly greater. Most notable here, we explained that only a patent holder (not a certificate holder) could prohibit "[a] farmer who legally purchases and plants" a protected seed from saving harvested seed "for replanting." . . . (noting that the Patent Act, unlike the PVPA, contains "no exemptio[n]" for "saving seed"). That statement is inconsistent with applying exhaustion to protect conduct like Bowman's. If a sale cut off the right to control a patented seed's progeny, then (contrary to *J. E. M.*) the patentee could not prevent the buyer from saving harvested seed. Indeed, the patentee could not stop the buyer from selling such seed, which even a PVP certificate owner (who, recall, is supposed to have fewer rights) can usually accomplish. *See* 7 U. S. C. §§2541, 2543. Those limitations would turn upside-down the statutory scheme *J. E. M.* described.

Bowman principally argues that exhaustion should apply here because seeds are meant to be planted. The exhaustion doctrine, he reminds us, typically prevents a patentee from controlling the use of a patented product following an authorized sale. And in planting Roundup Ready seeds, Bowman continues, he is merely using them in the normal way farmers do. Bowman thus concludes that allowing Monsanto to interfere with that use would "creat[e] an impermissible exception to the exhaustion doctrine" for patented seeds and other "self-replicating technologies."

But it is really Bowman who is asking for an unprecedented exception—to what he concedes is the "well settled" rule that "the exhaustion doctrine does not extend to the right to 'make' a new product." *See supra*, at 5. Reproducing a patented article no doubt "uses" it after a fashion. But as already explained, we have always drawn the boundaries of the exhaustion doctrine to exclude that activity, so that the patentee retains an undiminished right to prohibit others from making the thing his patent protects. *See, e.g., Cotton-Tie Co. v. Simmons*, 106 U. S. 89, 93–94 (1882) (holding that a purchaser could not "use" the buckle from a patented cotton-bale tie to "make" a new tie). That is because, once again, if simple copying were a protected use, a patent would plummet in value after the first sale of the first item containing the invention. The undiluted patent monopoly, it might be said, would extend not for 20 years (as the Patent Act promises), but for only one transaction. And that would result in less incentive for innovation than Congress wanted. Hence our repeated insistence that exhaustion applies only to the particular item sold, and not to reproductions.

Nor do we think that rule will prevent farmers from making appropriate use of the Roundup Ready seed they buy. Bowman himself stands in a peculiarly poor position to assert such a claim. As noted earlier, the commodity soybeans he purchased were intended not for planting, but for consumption. *See supra*, at 2–3. Indeed, Bowman conceded in deposition testimony that he knew of no other farmer who employed beans bought from a grain elevator to grow a new crop. So a non-replicating use of the commodity beans at issue here was not just available, but standard fare. And in the more ordinary case, when a farmer purchases Roundup Ready seed qua seed—that is, seed intended to grow a crop—he will be able to plant it. Monsanto, to be sure, conditions the farmer's ability to reproduce Roundup Ready; but it does not—could not realistically—preclude all planting. No sane farmer, after all, would buy the product without some ability to grow soybeans from it. And so Monsanto, predictably enough, sells Roundup Ready seed to farmers with a license to use it to make a crop. *See supra*, at 2, 6, n. 3. Applying our usual rule in this context therefore will allow farmers to benefit from Roundup Ready, even as it rewards Monsanto for its innovation.

Still, Bowman has another seeds-are-special argument: that soybeans naturally "self-replicate or 'sprout' unless stored in a controlled manner," and thus "it was the planted soybean, not Bowman"

himself, that made replicas of Monsanto's patented invention. Brief for Petitioner 42; see Tr. of Oral Arg. 14 (“[F]armers, when they plant seeds, they don’t exercise any control . . . over their crop” or “over the creative process”). But we think that blame-the-bean defense tough to credit. Bowman was not a passive observer of his soybeans’ multiplication; or put another way, the seeds he purchased (miraculous though they might be in other respects) did not spontaneously create eight successive soybean crops. As we have explained, *supra* at 2–3, Bowman devised and executed a novel way to harvest crops from Roundup Ready seeds without paying the usual premium. He purchased beans from a grain elevator anticipating that many would be Roundup Ready; applied a glyphosate-based herbicide in a way that culled any plants without the patented trait; and saved beans from the rest for the next season. He then planted those Roundup Ready beans at a chosen time; tended and treated them, including by exploiting their patented glyphosate- resistance; and harvested many more seeds, which he either marketed or saved to begin the next cycle. In all this, the bean surely figured. But it was Bowman, and not the bean, who controlled the reproduction (unto the eighth generation) of Monsanto’s patented invention.

Our holding today is limited—addressing the situation before us, rather than every one involving a self- replicating product. We recognize that such inventions are becoming ever more prevalent, complex, and diverse. In another case, the article’s self-replication might occur outside the purchaser’s control. Or it might be a necessary but incidental step in using the item for another purpose. Cf. 17 U. S. C. §117(a)(1) (“[I]t is not [a copyright] infringement for the owner of a copy of a computer program to make . . . another copy or adaptation of that computer program provide[d] that such a new copy or adaptation is created as an essential step in the utilization of the computer program”). We need not address here whether or how the doctrine of patent exhaustion would apply in such circumstances. In the case at hand, Bowman planted Monsanto’s patented soybeans solely to make and market replicas of them, thus depriving the company of the reward patent law provides for the sale of each article. Patent exhaustion provides no haven for that conduct. We accordingly affirm the judgment of the Court of Appeals for the Federal Circuit.

It is so ordered.

Edits to Notes, pages 581-584

Revised website link for Farmers Legal Action Group, Inc. book, page 582:

The Farmers Guide to GMOs is available for download on the FLAG Biotechnology/GMOs website. Both the website and a direct link to the book is provided on www.FoodFarmingSustainability.com.

Updated Statistics: Note 3, page 583:

Revised numbers are now reflected on Monsanto’s website page, *Why Does Monsanto Sue Farmers?*

This is a relatively rare circumstance, with 147 lawsuits filed since 1997 in the United States. This averages about 8 per year for the past 18 years. To date, only 9 cases have gone through full trial. In every one of these instances, the jury or court decided in our favor.

The Monsanto webpage link for this article has changed. It is now linked directly from www.FoodFarmingSustainability.com.

Additional Note, page 584

4. The Organic Seed Growers and Trade Association and dozens of organic and conventional family farmers, seed companies and public advocacy interests groups sued Monsanto in an attempt to prohibit Monsanto from suing farmers whose fields became inadvertently contaminated with crops containing Monsanto's genetic modification. The U.S. Court of Appeals for the Federal Circuit affirmed the district court's dismissal of the lawsuit finding there was no justiciable case or controversy. The court of appeals based its decision in part on the binding assurances made in Monsanto's declared policy, which states "it has never been, nor will it be Monsanto policy to exercise its patent rights where trace amounts of our patented seeds or traits are present in farmer's fields as a result of inadvertent means." Based upon Monsanto's assurances that it would not take legal action against growers whose crops might inadvertently contain trace amounts of Monsanto's seeds, the court of appeals agreed with the trial court's decision that "appellants had not alleged any circumstances placing them beyond the scope those assurances...there is no justiciable case or controversy." See, *Organic Seed Growers and Trade Association, et al., v. Monsanto Company, et al.* 718 F.3d 1350 (Fed. Cir. 2013). The decision is posted on www.FoodFarmingSustainability.com. The Supreme Court denied the plaintiff's request for review. Supreme Court Case No. 13-303 (Jan 13 2014).

Edits to Notes, pages 597-601

Add the following to Note 1 on page 597-98 (update on *Geertson Farms v. Johanns* and genetically engineered alfalfa)

APHIS prepared a Draft Environmental Impact Statement and on December 18, 2009 and published a notice in the Federal Register announcing its availability. After considering the comments received, APHIS published a final EIS reaffirming the decision to grant non-regulated status to the genetically engineered alfalfa, finding no significant impacts. USDA APHIS, *Glyphosate-Tolerant Alfalfa Events J101 and J163: Request for Nonregulated Status Final Environmental Impact Statement* (Dec. 2010). A copy of this final EIS is available on the USDA APHIS website and is linked directly from www.FoodFarmingSustainability.com.

On January 27, 2011, APHIS completely deregulated GE alfalfa, allowing for unrestricted planting, beginning February 2011. Environmental groups and organic and conventional farmers again filed a lawsuit seeking to vacate the USDA's deregulation, arguing that the EIS failed to adequately address many types of environmental harms that could result from the unrestricted commercial release of GE alfalfa. On January 5, 2012, the district court affirmed USDA's deregulation of Roundup Ready alfalfa and denied the plaintiffs' motion to vacate. On May 17, 2013, the Ninth Circuit Court of Appeals affirmed the district court.

Monsanto's perspective and a timeline on the deregulation of its alfalfa seed can be found on the Monsanto website, *Lawsuit Involving Roundup Ready Alfalfa* (linked on www.FoodFarmingSustainability.com).

In August of 2013, a farmer in Washington state complained to state officials that a small amount of GMO alfalfa had been detected in his non-GMO hay crop. His hay had been rejected for export sale. Many Asian nations reject GMOs, and the organic livestock industry similarly required non-GMO feed.

The USDA decided not to investigate, calling it a “commercial issue” that did not warrant government investigation. “The agriculture industry has approaches to minimize their occurrence and manage them when they occur,” the statement said. Carey Gillam, *USDA Will Not Take Action In Case Of GMO Alfalfa Contamination*, Reuters (Sept. 7, 2015) (linked on www.FoodFarmingSustainability.com).

For a good overview of the GM alfalfa and sugar beet controversies, see Tadlock Cowan & Kristina Alexander, *Deregulating Genetically Engineered Alfalfa and Sugar Beets: Legal and Administrative Responses*, Cong. Res. Rep. No. R41395 (May 22, 2013) (posted on www.FoodFarmingSustainability.com).

See also, Tadlock Cowan, *Agricultural Biotechnology: Background and Recent Issues*, Cong. Res. Rep. No. RL-32809 (June 18, 2011) (posted on www.FoodFarmingSustainability.com).

Add the following to Note 2 on page 598 (update on *Center for Food Safety v. Vilsack* and genetically engineered sugar beets)

On November 4, 2010, APHIS published its draft EIS for the de-regulation of genetically engineered sugar beets. On February 4, 2011 the final EIS was issued in which it partially deregulated GE sugar beet root crop production, but not seed crop production. The Center for Food Safety, Organic Seed Alliance, Sierra Club, and High Mowing Organic Seed filed suit claiming “there are significant environmental effects due to increased use of herbicide on GE crops and questions whether sugar beet seed production can be predicted and controlled.” Relying on the APHIS’s decision to deregulate the genetically engineered sugar beets the court dismissed the plaintiff’s claims as moot. See, *Center for Food Safety v. Vilsack*, 636 F.3d 1166 (9th Cir. 2011); 502 Fed. Appx. 647 (9th Cir. 2012).

See Tadlock Cowan & Kristina Alexander, *Deregulating Genetically Engineered Alfalfa and Sugar Beets: Legal and Administrative Responses*, Congressional Research Report R41395, 7-10 (May 22, 2013) (posted on www.FoodFarmingSustainability.com).

Add the following to Note 4 on page 598-99

As one proposed solution to glyphosate resistance, Dow Chemical created the Enlist Duo herbicide, a blend of 2,4-D and glyphosate, designed to combat the prevalence of ‘super weeds.’ The USDA approved the deregulation of Enlist Duo for soybean and corn trials in six Midwestern states. The National Resource Defense Council and several other environmental and consumer groups have filed lawsuits in attempted to block its roll out. See, Jon Entine, *GMO Opponents File Suit to Block EPA Approved Enlist Duo Weed Killer*, Huffington Post, (Oct. 16, 2014), linked on www.FoodFarmingSustainability.com).

See also, *EPA Approval of Dow’s Enlist Duo Herbicide Violates Endangered Species Act*, Center for Food Safety Press Release, (Feb. 9, 2015), linked on www.FoodFarmingSustainability.com).

D. The Labeling of Genetically Engineered Food Products

1. General Principles

Edit to Notes pages 608-609

Add the following new note on page 609:

2. In recent years, several bills and a number of ballot initiatives requiring the labeling of genetically engineered foods have been introduced. In particular, the ballot initiatives have been hard fought, with significant media coverage. For access to a wide range of information on the ballot initiatives, including the campaigns, a restatement of arguments used by both sides, the contributors, and the final vote, see ballotpedia.org. This website is linked on www.FoodFarmingSustainability.com.

Most GM labeling ballot initiatives have been defeated including the most prominent, California Right to Know Genetically Engineered Food Act Proposition 37, which was on the November 6, 2012 ballot in California as an initiated state statute. The California initiative would have required:

Labeling on raw or processed food offered for sale to consumers if made from plants or animals with genetic material changed in specified ways. Prohibits labeling or advertising such food as “natural.” Exempts foods that are: certified organic; unintentionally produced with genetically engineered material; made from animals fed or injected with genetically engineered material but not genetically engineered themselves; processed with or containing only small amounts of genetically engineered ingredients; administered for treatment of medical conditions; sold for immediate consumption such as in a restaurant; or alcoholic beverages.

This Act was defeated by a narrow margin of 51.41 percent to 48.59 percent. *See, California Proposition 37, Mandatory Labeling of Genetically Engineered Food (2012)*, Ballotpedia.org, linked on www.FoodFarmingSustainability.com).

Millions of dollars have been spent to campaign against the labeling of genetically engineered food initiatives. For example, in Washington state alone, using data collected as of October 30, 2013, Monsanto contributed almost \$5.4 million, DuPont spent over \$3.8 million, and Pepsi spent \$1.6 million to oppose the initiative to require GM labeling. The lobbying organization for the retail grocery industry, the Grocery Manufacturers Association contributed over \$11 million into fighting the ballot initiative. Opponents outraised proponents by \$13,578,632 or 261%. Opponents outspent proponents by \$11,895,393 or 244%. The initiative was defeated by 38,046 votes, 51.09% to 48.91%. *See, Washington Mandatory Labeling of Genetically Engineered Food Measure, Initiative 522 (2013)*, Ballotpedia.org, linked on www.FoodFarmingSustainability.com.

A host of consumer advocacy groups have been very active on this issue, demanding the labeling of products that contain genetically engineered products. *See, e.g.,* Just Label It, Environmental Working Group, Center for Food Safety, LabelGMOs, and Right to Know GMO. Links are provided on www.FoodFarmingSustainability.com.

On June 25, 2013, Connecticut's Governor Dannel Malloy signed the first state law mandating the labeling of foods that contain genetically modified ingredients. However, this law will only go in to effect when four additional states, including one that borders Connecticut enacts similar mandatory labeling laws and any combination of northeastern states with a combined population of twenty million

pass similar mandatory labeling laws. A copy of the law as enacted is provided on www.FoodFarmingSustainability.com.

On January 12, 2014, Maine Gov. Paul LePage signed a bill (L.D. 718) that will require labeling for foods containing genetically modified ingredients if at least five other states or a state with a population of at least 20 million pass similar legislation. Restaurants, alcoholic beverages and medical foods will be exempt from the labeling requirements. See, Reid Wilson, [*Maine becomes second state to require GMO labels*](#), Washington Post, (January 10, 2014), linked on www.FoodFarmingSustainability.com.

On May 8, 2014, Vermont lawmakers passed a bill (H.B. 112) requiring the mandatory labeling of foods made with genetically modified ingredients. The bill requires foods containing GM ingredients sold in retail outlets to be labeled as either “partially produced with genetic engineering,” “produced with genetic engineering,” or “may be produced with genetic engineering.” The legislation would also make it illegal to describe any food product containing GM ingredients as “natural” or “all natural.” The legislation is expected to take effect July 1, 2016. The Vermont GE labeling statute as enacted is posted on www.FoodFarmingSustainability.com.

The Vermont statute was constitutionally challenged by four food, beverage and business trade organizations, including the Grocery Manufacturers Association. *Grocery Mfrs. Ass’n et al. v. Sorrell*, No. 14-0117 (U.S. Dist. Ct., D. Vt., filed June 12, 2014). In April 2015, the district court judge denied a request for a preliminary injunction to suspend the law and also denied Vermont’s motion to dismiss. *Grocery Mfrs. Ass’n v. Sorrell*, No. 5:14-cv-117 D. Vt. (Apr. 27, 2015), --- F. Supp. ---, 2015 WL 1931142. A copy of the order is posted on www.FoodFarmingSustainability.com. The plaintiffs appealed to the 2nd Circuit Court of Appeals, and an expedited appeal schedule has been set. Updates to the litigation can be found on the Vermont Attorney General’s website, linked on posted on www.FoodFarmingSustainability.com.

For additional information and a helpful overview of federal issues up to 2014, see Emily Lanza, *Legal Issues with Federal Labeling of Genetically Engineered Food: In Brief* Cong. Res. Serv. Rep. No. R43705 (Aug. 28, 2014) (posted on www.FoodFarmingSustainability.com).

On July 23, 2015, the U.S. House passed the H.R.1599 - Safe and Accurate Food Labeling Act of 2015. A copy of the bill as presented to the Senate is posted on www.FoodFarmingSustainability.com). The bill has been termed the “DARK Act” by proponents of GM labeling, as it would preempt states’ ability to require GM labeling.

D. The Labeling of Genetically Engineered Food Products

2. Case Study: Bovine Somatotropin

Add to Note 2 page 611

In 2008 Ohio enacted a state-wide ban prohibiting milk producers and processors from using labels stating “rbGH free,” “rbST free,” or “artificial hormone free” on dairy products produced by cows not treated with rbST. The International Dairy Foods Association and the Organic Trade Association filed

suit and in 2010 the Sixth Circuit Court of Appeals struck down the law as unconstitutional, ruling the ban violated the milk producers and processors first amendment rights. *International Dairy Foods Ass'n v. Boggs*, 622 F.3d 628 (2010), posted on www.FoodFarmingSustainability.com.

E. International Trade and Genetically Engineered Products

The CRS report excerpted on pages 611-616 has been updated.

Tadlock Cowan, *Agricultural Biotechnology: Background and Recent Issues*, Cong. Res. Rep. No. RL-32809 (June 18, 2011). This report is posted on www.FoodFarmingSustainability.com.

Add Notes on page 616

Notes

1. As was mentioned with respect to alfalfa, *supra*, export markets can be negatively affected by the presence of genetically engineered products in otherwise GM-free crops and products. In May 2013, the USDA announced that a variety of genetically engineered (GE) wheat had been discovered in a field in Oregon. No varieties of GE wheat have been approved (deregulated) for commercial production, even in the U.S. There was great concern about the impact of this finding on international wheat sales. The USDA APHIS investigated, producing a report in September 2014. The report stated that APHIS was unable to determine why the GE wheat was found in the field but stated that the incident was isolated to the one field.

That same month, another variety of unauthorized volunteer GE wheat was found on research facility land in Montana. The USDA began another investigation. *See, USDA Announcement, USDA Announces Close and Findings of Investigation into the Detection of Genetically Engineered Wheat in Oregon in 2013; Opens New Investigation Into Separate Detection of GE Wheat in Montana in 2014* (Oct. 29, 2014) posted on USDA APHIS website and linked on www.FoodFarmingSustainability.com. The results of the second investigation have not been announced, but it is thought that the wheat may be linked to test plots grown in Montana in past years.

For more information, Tadlock Cowan, *Unapproved Genetically Modified Wheat Discovered in Oregon and Montana: Status and Implications*, Cong. Res. Serv. Rep. No. R43100 (Dec. 4, 2014) (posted on www.FoodFarmingSustainability.com).

X. Food and Agriculture

A. Food Safety and Agriculture

1. The Structure of Regulation
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1. Introduction
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D. Food for the Future

1. Food Security
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3. Food Deserts
4. The Role of Agriculture and the Way Forward

Links to the resources referenced in this supplement are provided on the FoodFarming Sustainability website, under Resources, [Food and Agriculture](#).

A. Food Safety and Agriculture

1. The Structure of Regulation

The CRS report excerpted on pages 617-23 has been updated.

Renée Johnson, *The Federal Food Safety System: A Primer*, Cong. Res. Serv. Rep. No. RS22600 (Jan. 17, 2014). This report is available on www.FoodFarmingSustainability.com.

Add at the conclusion of the updated CRS Report, on page 623:

As noted in the report, in December 2010, Congress passed historic new food safety legislation, the Food Safety Modernization Act (FSMA), and President Obama signed the bill into law on January 4, 2011. Pub. L. No. 111-353, 124 Stat. 3885 (2011). The new law is historic as it is the first major reform of the FDA's food safety regime in seventy years. It shifts the FDA focus from reactive to preventative, expands FDA powers to inspect and recall, establishes risk-based priorities, and addresses major weaknesses in import safety assurances. While many of its provisions apply only to the processing of food, some of its provisions address the risk associated with agricultural production of fruits and vegetables. In particular, § 105 Standards for Produce required the FDA to develop regulations to assure safe on-farm practices for produce production.

For additional resources, see also, Renée Johnson, *Food Safety on the Farm*, Cong. Res. Serv. Rep. No. RL34612 (Jan. 18, 2011); and Renée Johnson, *Food Safety Issues for the 114th Congress*, Cong. Res. Serv. Rep. No. R42885 (Feb. 13, 2015). Both reports are posted on www.FoodFarmingSustainability.com.

The online national newspaper, *Food Safety News*, sponsored by the Marler Clark law firm serves as an excellent resources for current information on food safety and food policy news. Similarly, noted foodborne illness attorney, Bill Marler writes for the Marler Blog, providing commentary on foodborne outbreaks and litigation. Both linked as websites on www.FoodFarmingSustainability.com.

Information regarding the Food Safety Working Group referenced on pages 625-627 has been updated.

Add to end of this section on page 627:

The Working Group's December 2011 progress report describes current and future initiatives. *The Federal Food Safety Working Group Progress Report* (Dec. 2011). The Report is available on the White House website and linked on www.FoodFarmingSustainability.com.

The Obama administration proposed a single food agency to replace the current bifurcated system. The administration's proposal would call for this agency to sit within the Department of Health and Human Services (HHS). Senator Durbin (D. Illinois) and Rep. DeLauro (D. N.Y.) proposed legislation that would create a stand-alone single food agency. See, Ron Nixon, *Obama Proposes Single Overseer for Food Safety*, NY TIMES (Feb. 20, 2015) available at the NY Times website and linked on www.FoodFarmingSustainability.com.

A. Food Safety and Agriculture

2. Limited Authority

Edits to Notes on pages 644-646

Edit to Note 3, page 646

In response to the Marler Clark petition and other requests, on September 20, 2011, the USDA FSIS published a notice in the Federal Register announcing its determination that Shiga toxin-producing *Escherichia coli* (STEC) O26, O45, O103, O111, O121, and O145 would now be considered to be adulterants within the meaning of 21 U.S.C. 601(m)(1) and (3) when found on raw, non-intact beef products, or raw, intact beef products that are intended for use in raw non-intact products. 76 Fed. Reg. 58,157 (Sept. 20, 2011). See also, 77 Fed. Reg. 31,975 (May 31, 2012) (response to comments on final determination; planned implementation for testing raw beef manufacturing trimmings). Both regulations are available on www.FoodFarmingSustainability.com.

Replace Note 5, page 646

5. Pursuant to its mandate under the Food Safety Modernization Act, in January 2013 FDA issued a proposed rule regulating the safe production, harvesting and packing of fresh produce. *Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption*, 78 Fed. Reg. 3504 (Jan. 16, 2013) (proposed rule affecting 21 C.F.R. Pts. 16 & 112).

There were 84 typographical and other errors discovered in the publication, and corrections were published on March 20, 2013. *Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption; Correction*, 78 Fed. Reg. 17156 (Mar. 20) (corrections to proposed rule). The FDA's corrected copy of the proposed rule is linked on www.FoodFarmingSustainability.com.

The rule was met with criticism by many in the farming community, particularly smaller farming operations. The water testing standards, the standards for the application of manure (which varied from the organic standards) and jurisdictional issues with respect to Native American Indian tribes were among the areas of sharp criticism. Some of the criticism is linked on www.FoodFarmingSustainability.com.

After reviewing comments on the original proposed rule, FDA issued a revised "supplemental" proposed rule that amended some of the most controversial provisions. 79 Fed. Reg. 58,434 (Sept. 29, 2014). This supplemental proposed rule is posted on www.FoodFarmingSustainability.com. Comments on the changes were accepted until Dec. 5, 2014. The FDA is currently reviewing the comments received on the revised proposed rule and a final rule is anticipated in October 2015.

Updated information can be found on the FDA FSMA Proposed Rule for Produce Safety Produce Safety webpage. Additional resources and links are posted on www.FoodFarmingSustainability.com. When the produce safety rule is finalized, the rule will be posted as well.

Add the following Notes on pages 646

6. The issue of Lean Finely Textured Beef (LFTB), also known as "pink slime" represents an interesting case study involving not only food safety but food labeling, state food disparagement laws, and freedom of speech. For background, see Joel L. Greene, *Lean Finely Textured Beef: The "Pink Slime" Controversy*, Cong. Res. Serv. Rep. No. R42473 (Apr. 6, 2012), available on www.FoodFarmingSustainability.com.

Beef Products, Inc.(BPI) in South Dakota developed LFTB by sending beef trimmings through a centrifuge to separate the lean beef from fat. BPI would then treat the resulting LFTB with ammonium gas as an antimicrobial intervention to kill bacteria in the product. After being frozen and pressed LFTB would then be combined with beef trimmings and sold as ground beef. The term "pink slime" originated with an FSIS inspector that questioned the safety and the lack of labeling of the product. ABC News and the New York Times, as well as other media outlets revealed the process and product, using the term pink slime, and generating significant criticism of the product. As a result of this criticism the USDA changed its policy on school lunches to allow schools to have a choice of whether to buy ground beef with LFTB or not. Major grocery chains discontinued the use of LFTB in their ground beef and BPI had to temporary shut down three of its four processing plants. BPI filed a lawsuit against ABC News, former USDA officials and a former BPI employee alleging defamation of its product. The lawsuit has not been resolved. Information on the lawsuit and a comprehensive timeline of the pink slime controversy and subsequent litigation can be found on Food Safety News, with a link provided on www.FoodFarmingSustainability.com.

7. The USDA FSIS amended its poultry products inspection regulations to establish a new inspection system for young chicken and all turkey slaughter establishments. Although the new system is touted by the USDA as a safety improvement, the rule was controversial largely because it reduced federal

inspectors and put additional responsibilities on the processing company. 79 Fed. Reg. 49,566 (Aug. 21, 2014) (codified at 9 C.F.R. pts. 381, 500). The USDA “Modernization of Poultry Inspection” webpage advances the USDA perspective on the cost-saving rule. *Contra, see, e.g.*, Center for Food Safety criticism of the new rule, “*Modernizing” Poultry Inspections Undermines Food Safety Standards* (Aug. 1, 2014). All are linked on www.FoodFarmingSustainability.com.

8. As the federal government continues to focus on reducing and preventing pathogen contamination in the food industry criminal prosecution may continue to be an enforcement mechanism to ensure food safety. Cantaloupe, eggs and peanut butter contaminated with pathogens have caused an unprecedented number of criminal prosecutions in the food industry.

The brothers who owned Jensen Farm’s were charged and pled guilty to six federal criminal misdemeanors after a 2011 listeria outbreak, which sickened 147 people in 28 states resulting in the deaths of 33 people, was linked to cantaloupe from their farm. They were each sentenced to five years of probation, six months of home detention, 100 hours of community service and ordered to pay \$150,000 to victims and their families. *See* James Anderson, *Farmers in Cantaloupe Outbreak Sentenced to Probation, House Arrest, Fines*, FOOD SAFETY NEWS, (January 29, 2014).

The owners of Quality Egg LLC. were charged and each pled guilty to one federal criminal misdemeanor after thousands were sickened in a 2010 Salmonella outbreak traced to their egg production facilities. *See*, Dan Flynn, *Salmonella Victims Learn DeCosters Will Be Sentenced in February*, FOOD SAFETY NEWS (Nov 18, 2014). The DeCosters each paid a \$100,000 fine, were jointly responsible for criminal restitution, and were both sentenced to a three-month federal prison term. However, their sentence was suspended on appeal. *See*, Dan Flynn, *DeCosters Cite 2010 Performance to Help Keep Them Out of Jail* FOOD SAFETY NEWS (July 22, 2015).

The former owners and managers of Peanut Corporation of America (PCA) were convicted on multiple federal felony counts after peanut butter contaminated with salmonella was produced at their plants, and they knowingly sold it to consumers, resulting in over 700 illness and nine deaths. The prosecutor has requested a life sentence. Bill Marler, *Life in Prison for Selling Salmonella Tainted Peanut Butter?* Marler Blog (July 23, 2015).

For a series of commentary on criminal prosecutions for serious foodborne illness, *see*, Bill Marler’s 2015 columns in Forbes Magazine.

All articles referenced are linked on www.FoodFarmingSustainability.com.

B. The Regulation of Organic Food

1. Introduction

Edits to Notes on pages 650-651

Add the following Notes on pages 650

1. Updated market information on the organic industry can be found on the USDA Economic Research Service page, which is linked on www.FoodFarmingSustainability.com.

Updated information to replace the statistics included in note 2, page 650

2. According to the U.S. Organic Trade Association Industry Survey, sales of organic products in the United States continued their growth rate, jumping to \$39.1 billion in 2014, up 11.3% from 2013. Sales have grown “by double-digits every year since the 1990s.”

Organic sales now near a milestone 5 percent share of the total food market.

The organic dairy sector posted an almost 11 percent jump in sales in 2014 to \$5.46 billion, the biggest percentage increase for that category in six years.

Sales of organic non-food products – accounting for 8 percent of the total organic market – posted the biggest percentage gain in six years, with sales of organic fiber and organic personal care products the stand-out categories.

State of the Industry Fact Sheet, U.S. Organic Industry Survey 2015, Organic Trade Association. A link to this fact sheet and to the OTA website are provided on www.FoodFarmingSustainability.com.

B. The Regulation of Organic Food

3. Changing Perspectives

Add at the conclusion of the section, page 664:

In a March 2014 press release, the USDA announced that the Organic industry currently encompasses 18,513 certified organic farms and businesses in the US, representing a 245 percent increase since 2002.

Agriculture Secretary Tom Vilsack said "Consumer demand for organic products has grown exponentially over the past decade. With retail sales valued at \$35 billion last year, the organic industry represents a tremendous economic opportunity for farmers, ranchers and rural communities" The press release contains a number of new provisions in the 2014 Farm Bill to expand and enhance the organic industry including:

- \$20 million annually for dedicated organic research, agricultural extension programs, and education. The Cooperative Extension System is a nationwide, non-credit educational network. Every U.S. state and territory has a state office at its land-grant university and a network of local or regional offices staffed by experts that provide useful, practical, and research-based information.
- \$5 million to fund data collection on organic agriculture that will give policymakers, organic farmers, and organic businesses data needed to make sound policy, business, and marketing decisions
- Expanded options for organic crop insurance to protect farmers

- Expanded exemptions for organic producers who are paying into commodity "check off" programs, and authority for USDA to consider an application for the organic sector to establish its own check off
- Improved enforcement authority for the National Organic Program to conduct investigations
- \$5 million for a technology upgrade of the National Organic Program to provide up-to-date information about certified organic operations across the supply chain
- \$11.5 million annually for certification cost-share assistance, which reimburses the costs of annual certification for organic farmers and livestock producers by covering 75 percent of certification costs, up to \$750 per year.

USDA Announces Growth of U.S. Organic Industry and Additional USDA Support Available with New Farm Bill, USDA NEWS RELEASE, linked on www.FoodFarmingSustainability.com.

C. The Local Food Movement

Additional resource:

Sarah A. Low, Aaron Adalja, Elizabeth Beaulieu, Nigel Key, Stephen Martinez, Alex Melton, Agnes Perez, Katherine Ralston, Hayden Stewart, Shellye Suttles, Stephen Vogel, and Becca B.R. Jablonski, *Trends in U.S. Local and Regional Food Systems: A Report to Congress*, USDA ERS, Admin. Pub. No. AP-068 (Jan. 2015) available on the USDA ERS website and linked on www.FoodFarmingSustainability.com.

D. Food for the Future

1. Food Security

Replace the report summary on pages 697-698 with the following updated report:

Alisha Coleman-Jensen, Christian Gregory, and Anita Singh
Household Food Security in the United States, 2013

USDA Economic Research Service, Report No. ERR-173 (September 2014)
(Report Summary)

The full report is available on the USDA ERS website and is linked on www.FoodFarmingSustainability.com.

Most U.S. households have consistent, dependable access to enough food for active, healthy living—they are food secure. But a minority of American households experience food insecurity at times during the year, meaning that their access to adequate food is limited by a lack of money and other resources. USDA's food and nutrition assistance programs increase food security by providing low-income households access to food, a healthful diet, and nutrition education. USDA also monitors the extent and severity of food insecurity in U.S. households through an annual, nationally representative

survey sponsored by USDA's Economic Research Service. Reliable monitoring of food security contributes to the effective operation of the Federal programs as well as private food assistance programs and other government initiatives aimed at reducing food insecurity. This report presents statistics from the survey covering households' food security, food expenditures, and use of food and nutrition assistance programs in 2013.

The percentage of U.S. households that were food insecure remained essentially unchanged from 2012 to 2013; however, food insecurity declined from 2011 to 2013. The percentage of households with food insecurity in the severe range—described as very low food security— was essentially unchanged. In 2013, 85.7 percent of U.S. households were food secure throughout the year. The remaining 14.3 percent (17.5 million households) were food insecure. Food-insecure households (those with low and very low food security) had difficulty at some time during the year providing enough food for all their members due to a lack of resources. The change from 2012 (14.5 percent) was not statistically significant; however, the cumulative decline from 2011 (14.9 percent) was statistically significant.

In 2013, 5.6 percent of U.S. households (6.8 million households) had very low food security, essentially unchanged from 5.7 percent in 2011 and 2012. In this more severe range of food insecurity, the food intake of some household members was reduced and normal eating patterns were disrupted at times during the year due to limited resources.

Children and adults were food insecure at times during the year in 9.9 percent of households with children. At times during the year, these 3.8 million households were unable to provide adequate, nutritious food for their children. The percentage of households with food-insecure children was essentially unchanged from 2011 and 2012 (10.0 percent in each year). While children are usually shielded from the disrupted eating patterns and reduced food intake that characterize very low food security, both children and adults experienced instances of very low food security in 0.9 percent of households with children (360,000 households) in 2013, a statistically significant decline from 1.2 percent of households with children in 2012. The change from 2011 (1.0 percent of households with children) was not statistically significant.

Rates of food insecurity were substantially higher than the national average for households with incomes near or below the Federal poverty line, households with children headed by single women or single men, and Black- and Hispanic-headed households. Food insecurity was more common in large cities and rural areas than in suburban areas and exurban areas around large cities. The prevalence of food insecurity varied considerably from State to State. Estimated prevalence of food insecurity in 2011-13 ranged from 8.7 percent in North Dakota to 21.2 percent in Arkansas; estimated prevalence rates of very low food security ranged from 3.1 percent in North Dakota to 8.4 percent in Arkansas. (Data for 3 years were combined to provide more reliable State-level statistics.)

The typical food-secure household spent 30 percent more for food than the typical food-insecure household of the same size and composition, including food purchased with Supplemental Nutrition Assistance Program (SNAP) benefits (formerly the Food Stamp Program). Sixty-two percent of food-insecure households in the survey reported that in the previous month, they had participated in one or more of the three largest Federal food and nutrition assistance programs (SNAP; Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); and National School Lunch Program).

Notes, pages 698-99, Updated Statistics; Additional Resource

Replace note 2 as follows and add note 3, page 698-99.

2. The USDA Household Food Security report lists eight states with statistically higher household food insecurity rates than the national average for the years 2011–2013 of 14.6%.

1. Arkansas	21.2%
2. Georgia	16.6%
3. Missouri	16.9%
4. Mississippi	21.1 %
5. North Carolina	17.3%
6. Ohio	16.0 %
7. Tennessee	17.4 %
8. Texas	18.00 %

Alisha Coleman-Jensen, Christian Gregory, and Anita Singh, *Household Food Security in the United States, 2013*, at 20, USDA ERS, Rep. No. ERR-173 (September 2014).

It is ironic to note that most of the states included in this listing have a significant agricultural industry. Texas and North Carolina are considered to be among the top ten agricultural producing states in the nation. The states of Mississippi, Arkansas, and Georgia, each claim agriculture as its largest industry, with significant agricultural interests in each of the other states.

3. Additional reports on food insecurity can be found on the USDA ERS website and are linked at www.FoodFarmingSustainability.com.

D. Food for the Future

2. The Obesity Epidemic

Updated Obesity Data: Replace the first paragraph of this section with the following:

Results from the 2011–2012 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate that an estimated 33.9% of U.S. adults aged 20 and over are overweight, 35.1% are obese, and 6.4% are extremely obese. Body mass index (BMI), expressed as weight in kilograms divided by height in meters squared (kg/m²), is commonly used to classify overweight (BMI 25.0–29.9), obesity (BMI greater than or equal to 30.0), and extreme obesity (BMI greater than or equal to 40.0).

Cheryl D. Fryar, Margaret D. Carroll, and Cynthia L. Ogden, *Prevalence of Overweight, Obesity, and Extreme Obesity Among Adults: United States, 1960-1962 Through 2011–2012*, National Center for Health Statistics, Center for Disease Control and Prevention (September 2014) available on www.FoodFarmingSustainability.com.

Add Notes on page 706 at the conclusion of the section:

1. Concerns regarding the problem of obesity have increased, with a number of studies evidencing the serious health and economic consequences. One of the most alarming and well documented reports is the consensus report issued by the Institute of Medicine (IOM), funded by the Robert Wood Johnson Foundation, *Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation* (May 8, 2012). The report notes that:

Two-thirds of adults and one-third of children are overweight or obese. Left unchecked, obesity's effects on health, health care costs, and our productivity as a nation could become catastrophic. The staggering human toll of obesity-related chronic disease and disability, and an annual cost of \$190.2 billion for treating obesity-related illness, underscore the urgent need to strengthen prevention efforts in the United States.

The report identifies five critical goals for preventing obesity:

- 1) Integrating physical activity into people's daily lives;
- 2) Making healthy food and beverage options available everywhere,;
- 3) Transforming marketing and messages about nutrition and activity;
- 4) Making schools a gateway to healthy weights; and,
- 5) Galvanizing employers and health care professionals to support healthy lifestyles.

The report challenges U.S. agricultural policy in its recommendations for achieving Goal 2, which is further articulated to "create food and beverage environments that ensure that healthy food and beverage options are the routine, easy choice." The strategy for meeting this goal includes efforts to "[b]roaden the examination and development of U.S. agriculture policy and research to include implications for the American diet." Congress, the Administration, and federal agencies should examine the implications of U.S. agriculture policy for obesity, and should ensure that such policy includes understanding and implementing, as appropriate, an optimal mix of crops and farming methods for meeting the Dietary Guidelines for Americans.

The Report suggests potential actions that could be taken in developing this policy:

- The President appointing a Task Force on Agriculture Policy and Obesity Prevention to evaluate the evidence on the relationship between agriculture policies and the American diet, and to develop recommendations for policy options and future policy-related research, specifically on the impact of farm subsidies and the management of commodities on food prices, access, affordability, and consumption;
- Congress and the Administration establishing a process by which federal food, agriculture, and health officials would review and report on the possible implications of U.S. agriculture policy for obesity prevention to ensure that this issue will be fully taken into account when policy makers consider the Farm Bill;
- Congress and the U.S. Department of Agriculture (USDA) developing policy options for promoting increased domestic production of foods recommended for a healthy diet that are generally under-consumed—including fruits, vegetables, and dairy products—by reviewing incentives and disincentives that exist in current policy;

- As part of its agricultural research agenda, USDA exploring the optimal mix of crops and farming methods for meeting the current Dietary Guidelines for Americans, including an examination of the possible impact of smaller-scale agriculture, of regional agricultural product distribution chains, and of various agricultural models from small to large scale, as well as other efforts to ensure a sustainable, sufficient, and affordable supply of fresh fruits and vegetables; and,
- Congress and the Administration ensuring that there is adequate public funding for agricultural research and extension so that the research agenda can include a greater focus on supporting the production of foods Americans need to consume in greater quantities according to the Dietary Guidelines for Americans.

The Report is available on the IOM website and is linked on www.FoodFarmingSustainability.com.

2. A special documentary, *WEIGHT OF THE NATION*, a presentation of HBO and the Institute of Medicine (IOM), in association with the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH), and in partnership with the Michael & Susan Dell Foundation and Kaiser Permanente was produced in four parts aired in May 2012. Agricultural policies and school nutrition policies implemented through the USDA are among many of the topics presented. The documentary is available for free online viewing on the HBO website, with a link provided on www.FoodFarmingSustainability.com.

3. In October 2011, the Institute of Medicine's Standing Committee on Childhood Obesity Prevention hosted a workshop involving a variety of different organizations and representing multiple sectors. The purpose was to find common ground and develop innovative alliances for obesity prevention. The report from the workshop is found at IOM, *Alliances for Obesity Prevention: Finding Common Ground - Workshop Summary* (May 11, 2012). It is available on the IOM website, with a link provided on www.FoodFarmingSustainability.com.

4. On February 9, 2010 the First Lady Michelle Obama launched the Let's Move Campaign "dedicated to solving the challenge of childhood obesity within a generation, so that children born today will grow up healthier and able to pursue their dreams." The initiative focuses on five pillars: creating a healthy start for children; empowering parents and caregivers; providing healthy food in schools; improving access to healthy, affordable foods; and increasing physical activity.

As part of the initiative, President Barack Obama established a Task Force on Childhood Obesity to develop and implement an action plan that includes strategies and benchmarks to end the problem of childhood obesity within a generation. See, *Solving the Problem of Childhood Obesity Within a Generation*, White House Task Force on Childhood Obesity Report to the President (May 2010) available on the Let's Move website and linked on www.FoodFarmingSustainability.com.

The Partnership for a Healthier America (PHA) was also founded in conjunction with the Lets Move campaign. The PHA is a nonpartisan, nonprofit that works with the private, public and nonprofit sectors to develop strategies to end childhood obesity. More information is available on their website and on the Let's Move campaign website, linked on www.FoodFarmingSustainability.com.

5. Section 301 of the National Nutrition Monitoring and Related Research Act of 1990 (7 U.S.C. 5341), requires the U.S. Department of Health and Human Services (HHS) and USDA to produce Dietary

Guidelines for Americans every 5 years. HHS and USDA appoint a Dietary Guidelines Advisory Committee (DGAC) consisting of nationally recognized experts in the field of nutrition and health. The committee reviews the scientific and medical knowledge available and produces a report for the Secretaries. The report makes recommendations for the next edition of the Dietary Guidelines based on their review of current literature.

Scientific Report of the 2015 Dietary Guidelines Advisory Committee, Advisory Report to the Secretary of Health and Human Services and the Secretary of Agriculture (Feb. 2015), available on the Office of Disease Prevention and Health Promotion website and linked on www.FoodFarmingSustainability.com.

Although science based, the Dietary Guidelines reports are controversial in that they favor some foods over others, impacting agricultural producers and food industries. The 2015 Report includes the following:

The major findings regarding sustainable diets were that a diet higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in calories and animal-based foods is more health promoting and is associated with less environmental impact than is the current U.S. diet. This pattern of eating can be achieved through a variety of dietary patterns, including the Healthy U.S.-style Pattern, the Healthy Mediterranean-style Pattern, and the Healthy Vegetarian Pattern. All of these dietary patterns are aligned with lower environmental impacts and provide options that can be adopted by the U.S. population. Current evidence shows that the average U.S. diet has a larger environmental impact in terms of increased greenhouse gas emissions, land use, water use, and energy use, compared to the above dietary patterns. This is because the current U.S. population intake of animal-based foods is higher and plant-based foods are lower, than proposed in these three dietary patterns. Of note is that no food groups need to be eliminated completely to improve sustainability outcomes over the current status.

Id.

For a discussion of the controversy that this approach ignited, *see. e.g.*, Allison Aubrey, *Will The Dietary Guidelines Consider The Planet? The Fight Is On*, THE SALT, National Public Radio (Feb. 26, 2015), available on the NPR website and linked on www.FoodFarmingSustainability.com.

When the U.S. House passed the 2016 Agricultural Appropriations Bill in July 2015, the following instructions for the Dietary Guidelines, were included:

SEC. 733. None of the funds appropriated in this Act may be used to issue, promulgate, or otherwise implement the 2015 Dietary Guidelines for Americans edition unless the information and guidelines in the report are solely nutritional and dietary in nature; and based only on a preponderance of nutritional and dietary scientific evidence and not extraneous information.

The appropriations bill passed out of the Senate committee with the following language in its committee report:

Dietary Guidelines for Americans.—The Committee is concerned that the 2015 Dietary Guidelines Advisory Committee’s recommendations included issues outside of the nutritional scope of the Dietary Guidelines for Americans. The Committee directs the Secretary to ensure that the Guidelines are solely nutritional and dietary in nature and based on a preponderance of scientific evidence. Furthermore, the Committee includes new bill language directing the

Secretary to only include nutrition and dietary information, not extraneous factors, in the final 2015 Dietary Guidelines for Americans.

The final language that is passed in the appropriations bill as well as the final Dietary Guidance will be linked on www.FoodFarmingSustainability.com.

6. In 2010 Congress passed the Healthy, Hunger-Free Kids Act of 2010. The Act focuses on reducing childhood obesity, improving nutrition in schools, and increasing children's access to food in schools. The Act has the potential to change food insecurity in the United States, reduce childhood obesity and improve children located in food deserts access to food. It has been, nevertheless controversial in its attempt to change some of the types of agricultural products and food items provided to school children through the school lunch program. More information on the Act is available at the USDA School Lunch: Healthy, Hunger-Free Kids Act webpage, linked as a website link on www.FoodFarmingSustainability.com.

D. Food for the Future

3. Food Deserts

Add to Notes pages 709-10

5. Urban agriculture continues to emerge as a significant trend. The new JOURNAL OF AGRICULTURE, FOOD SYSTEMS, AND COMMUNITY DEVELOPMENT devoted its second full issue, Volume 1, Issue 2 / Fall 2010, to "urban and peri-urban agriculture." A link to this issue is provided at www.FoodFarmingSustainability.com.

The USDA released a memorandum from Deputy Secretary Kathleen A. Merrigan outlining the various USDA programs that apply to urban and peri-urban agriculture, Memorandum: *Urban Agriculture And Gardening: Supporting Farm Viability, Building Access To Nutritious, Affordable Food And Encouraging Rural-Urban Linkages* (Oct. 4, 2011). This memorandum is linked on www.FoodFarmingSustainability.com.