



Acre Changes in Crops from 1991 to 2016

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

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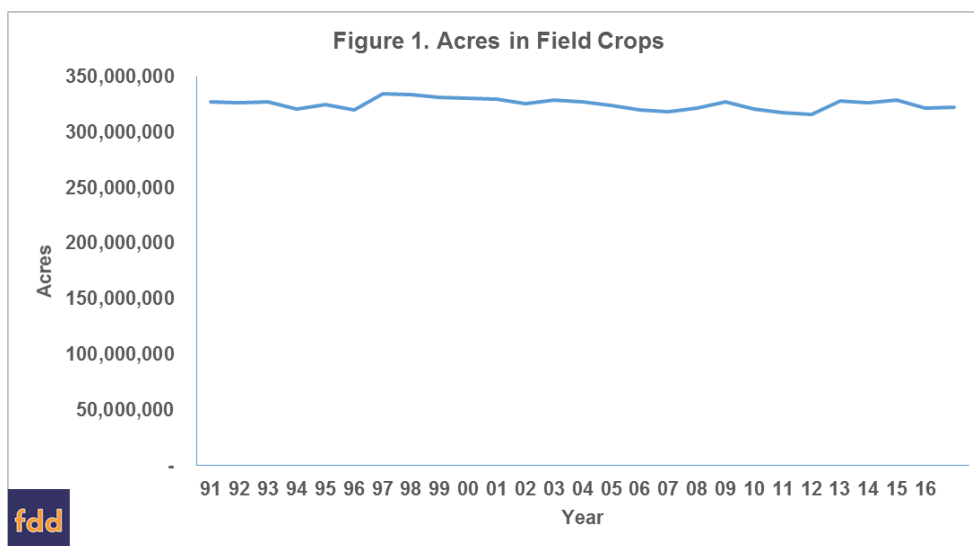
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Over the past 25 years, there have been shifts in crops planted in the United States. Overall, acres in feed grain crops decreased while acres in oilseed crops increased. Feed grain crops losing acres were wheat, oats, barley, and sorghum. The only feed grain crop with a large acre increase was corn. Within oilseed crops, soybeans accounted for 90% of the acres in the category. Over time, U.S. Farmers have tended to specialize production in corn and soybeans in the United States.

Changes in Acres from 1991-93 to 2014-16

Acre changes are reported for all crops that the U.S. Department of Agriculture (USDA) categorized as "principal crops" in its [2017 Prospective Planting Report](#). In addition, acres are reported for six other crops for which National Agricultural Statistical Service (NASS) has crop data: flaxseed, lentils, mustard, peas, rapeseed, and sunflowers. The principal crops along with the additional six crops can be roughly categorized as field crops. Not included in this analysis are changes in vegetables, fruits, and tree bearing crops.



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In 2016, there were 322 million acres planted in these field crops. Modest variations in total acres in field crops occurred, with a range from 315 million acres in 2011 to 335 million ACRES in 1996. A trend of increasing or decreasing acres devoted to field crops does not exist (see Figure 1).

To make acre change comparisons, acres are averaged from the years from 1991 to 1993 (1991-93) and from 2014 to 2016 (2014-16). Three-year averages are used to minimize the influences of anomalous factors impacting acreages. The year 1991 is selected for the first year as that is the first year that NASS reported acres for several of these crops.

Table 1. Acres Planted in Field Crops in 1990-93 and 2014-16¹

| Crop | Category | Acres ² | | Change ³ |
|-------------------|---------------------------|--------------------|-------------|---------------------|
| | | 1991-93 | 2014-16 | |
| | | (acres) | (acres) | (acres) |
| Wheat | Feed grains, wheat, rice | 71,422,667 | 53,998,000 | (17,424,667) |
| Oats | Feed grains, wheat, rice | 8,177,667 | 2,889,667 | (5,288,000) |
| Hay | Hay | 60,142,000 | 54,990,000 | (5,152,000) |
| Barley | Feed grains, wheat, rice | 8,163,000 | 3,235,333 | (4,927,667) |
| Sorghum | Feed grains, wheat, rice | 11,374,333 | 7,429,000 | (3,945,333) |
| Cotton | Other | 13,576,800 | 9,897,467 | (3,679,333) |
| Sunflower | Oilseeds, peanuts, pulses | 2,563,333 | 1,673,667 | (889,667) |
| Tobacco | Other | 764,842 | 342,223 | (422,618) |
| Potatoes | Other | 1,382,167 | 1,064,200 | (317,967) |
| Sugar beets | Other | 1,433,933 | 1,161,900 | (272,033) |
| Peanuts | Oilseeds, peanuts, pulses | 1,819,767 | 1,549,833 | (269,933) |
| Safflower | Oilseeds, peanuts, pulses | 322,667 | 170,933 | (151,733) |
| Rice | Feed grains, wheat, rice | 2,993,333 | 2,909,667 | (83,667) |
| Sugarcane | Other | 923,467 | 882,100 | (41,367) |
| Rapeseed | Oilseeds, peanuts, pulses | 12,400 | 4,800 | (7,600) |
| Mustard | Other | 17,367 | 60,233 | 42,867 |
| Rye | Feed grains, wheat, rice | 1,568,667 | 1,636,333 | 67,667 |
| Beans, Dry Edible | Oilseeds, peanuts, pulses | 1,824,200 | 1,958,733 | 134,533 |
| Flaxseed | Oilseeds, peanuts, pulses | 244,333 | 382,667 | 138,333 |
| Lentils | Oilseeds, peanuts, pulses | 134,000 | 569,000 | 435,000 |
| Peas | Oilseeds, peanuts, pulses | 182,500 | 1,185,333 | 1,002,833 |
| Canola | Oilseeds, peanuts, pulses | 164,667 | 1,735,333 | 1,570,667 |
| Corn | Feed grains, wheat, rice | 76,169,000 | 90,873,333 | 14,704,333 |
| Soybeans | Oilseeds, peanuts, pulses | 59,481,667 | 83,119,667 | 23,638,000 |
| | Feed grains, wheat, rice | 179,868,667 | 162,971,333 | (16,897,333) |
| | Hay | 60,142,000 | 54,990,000 | (5,152,000) |
| | Oilseeds, peanuts, pulses | 66,749,533 | 92,349,966 | 25,600,433 |
| | Other | 18,098,575 | 13,408,123 | (4,690,452) |

¹ Acre taken from National Agricultural Statistical Service (NASS). All crop acres are planted, except for hay. Harvested acres are used for hay.

² Average of acres for the years from 1990 to 1992 and from 2014 to 2016.

³ Changes equals acres in 2014-16 minus acres in 1991-93.

Table 1 shows a list of crops for which acre changes are reported. These crops are divided into four categories for making comparisons:

- Feed grains, wheat, and rice. This category includes corn, wheat, barley, oats, rice, and sorghum. These crops often provided energy for human and animal diets, as well as for providing energy through biofuels. To some extent, these crops will substitute for one another. For example, both corn and wheat can be used as an energy source in animal diets.

- Oilseeds, peanuts, and pulses. This category includes soybeans, canola, peanuts, lentils, flaxseed, and sunflower. These crops can serve as protein sources.
- Hay.
- Other. Other crops include cotton, tobacco, sugar beets, sugarcane, and mustard. These crops do not fit in the above categories.

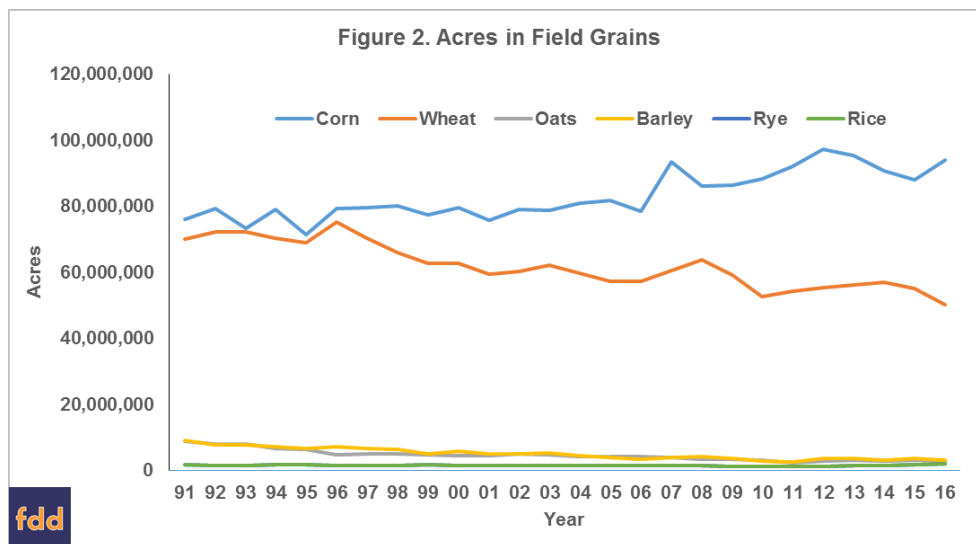
Between 1991-93 and 2014-16, six crops lost more than 1,000,000 acres; wheat, oats, hay, barley, sorghum, and cotton (see Table 1). By far, the crop with the largest loss in acres was wheat, with a loss of 17 million acres. Wheat was followed by oats, hay, barley, sorghum, and cotton. Of these highest acre losing crops, four to the crops are categorized as “feed grains, wheat, and rice”: wheat, oats, barley, and sorghum.

Between 1991-93 and 2014-16, four crops gained over 1 million acres (see Table 1). Soybean acres increased by 24 million acres. Corn had the second largest increase with 15 million acres. Canola had an increase of 2 million acres. Peas increased by 1 million acres.

Between 1991-93 and 2014-16, there were shifts in the types of crops grown in the United States. The “feed grains, wheat, rice”, “hay”, and “other” crop categories lost acres. The “oilseed, peanuts, pulse” category gained acres (see Table 1).

Feed grains, wheat, and rice

At the beginning of the 1990s, corn and wheat had roughly the same acres (see Figure 2). Since the 1990s, corn increased in acres, with much of the increase occurring between 2006 through 2012, likely due to the increased use of corn in the production of ethanol.



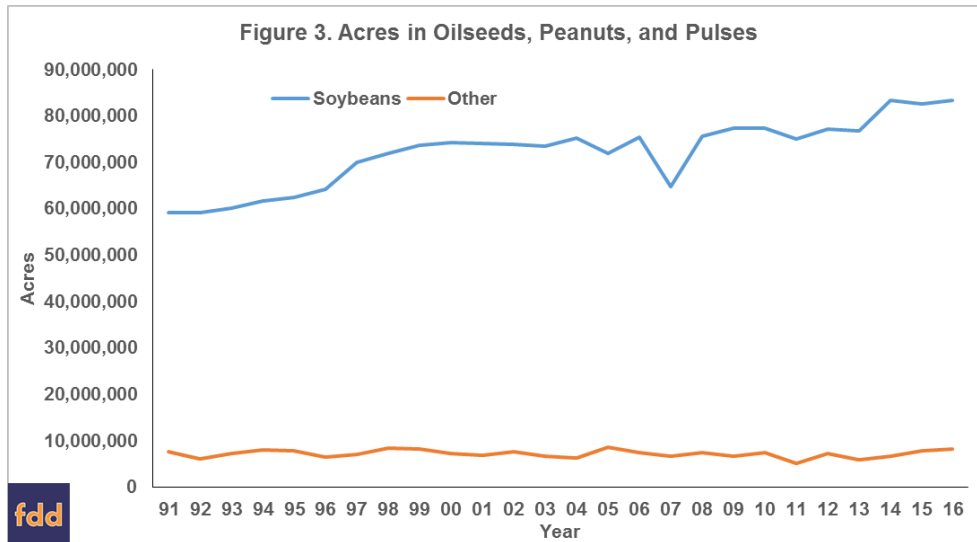
Unlike corn, the other feed grains did not increase acres. Four of the other feed grains lost acres: wheat, oats, barley, and sorghum. Wheat lost 17 million acres, oats lost 5 million acres, and barley lost 5 million acres, and sorghum lost 4 million acres. From 1991 to 2016, rice and rye had relatively stable acres.

These acre shifts can be attributed to two factors. First, much of the animal feed use shifted away from other feed grains to corn. Prices and supply of corn relative to other crops likely impacted these factors. The second is the increased use of corn in the production of ethanol.

Oilseeds, peanuts, and rice

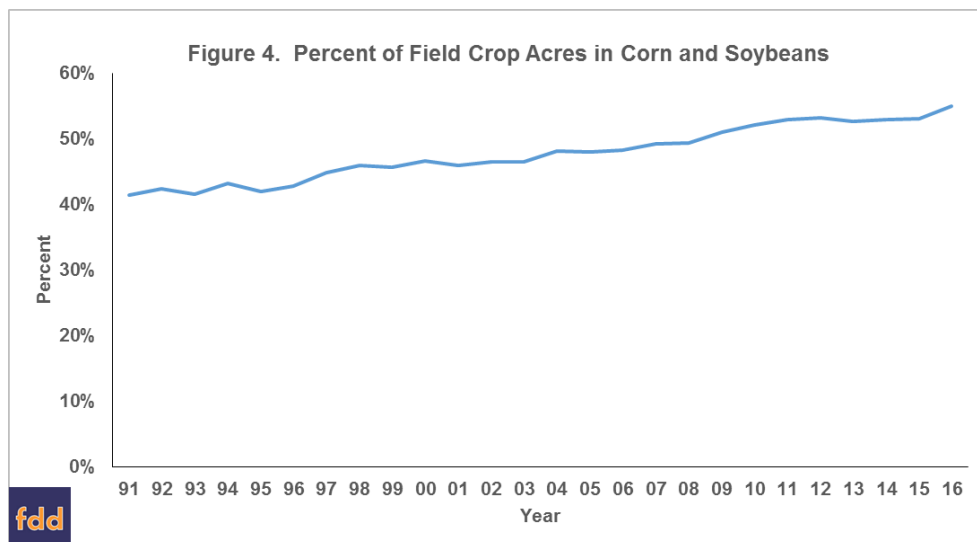
Soybeans was by far the leading “oilseed, peanuts, and pulse” crop. In 2016, there were 83 million acres of soybeans compared to 8 million acres in the other oilseed. Overall, soybeans account for 91% of acres planted to oilseeds in the U.S.

Soybeans acres have increased since 1991 from 59 million acres to 83 million acres. Other crops in the “oilseed, peanuts, and pulse” category have remained stable at 8 million acres (see Figure 3).



Concentration in Corn and Soybeans

The above acre changes resulted in a continuing concentration into corn and soybeans (see Figure 4). In 1991, corn and soybeans accounted for 41% of the acres in field crops. This percentage has been increasing at a steady rate over time, reaching 55% in 2016.



Summary

During the last 25 years, acres have shifted away from “feed grains, wheat, rice”, “hay”, and “other” categories to “Oilseeds, peanuts, pulse” category. Within the “feed grains, wheat, rice” category, corn has become the dominate feed grain in terms of acres. Soybean is the dominant oilseed in terms of acres. Overall, these trends have led to a specialization in corn and soybeans.

Reference

USDA, National Agricultural Statistics Service. *Prospective Plantings* (March 2017), released March 31, 2017. <http://usda.mannlib.cornell.edu/usda/nass/ProsPlan//2010s/2017/ProsPlan-03-31-2017.pdf>