



## Decoding Prevent Plant Acres for Corn and Soybeans

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November 13, 2019

*farmdoc daily* (9): 214

Gardner Policy Series

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Recommended citation format: Zulauf, C., G. Schnitkey, and B. Brown. “[Decoding Prevent Plant Acres for Corn and Soybeans](#).” *farmdoc daily* (9): 214, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, November 13, 2019.

Permalink: <https://farmdocdaily.illinois.edu/2019/11/decoding-prevent-plant-acres-for-corn-and-soybeans.html>

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Puzzlement has surrounded prevent plant acres for corn in 2019. Specifically, using November 1 data from USDA, FSA (US Department of Agriculture, [Farm Service Agency](#)), how can corn have 11.4 million prevent plant acres when corn planted (plus failed) acres are 87.1 million? One potential reason explored in this article is that acres intended to be planted to soybeans were claimed as corn prevent plant acres.

### Prevent Plant Overview

Prevent plant is a provision of individual farm yield and revenue insurance but not of area yield and revenue insurance. Once an insured cause of loss causes planting to be delayed until the final insurance plant date set by RMA (Risk Management Agency), the farm has the management option of accepting a prevent plant payment in lieu of planting the crop. Under RMA rules, (1) prevent plant can be taken only for crops planted on an insured unit in one of the four preceding crop years, (2) the farmer must show intention to plant the crop in the current year, and (3) prevent plant is capped at the highest acres planted to the crop over the four prior years minus acres planted to the crop in the current year with adjustment if the insured unit increases in size. To illustrate, assume an insured unit of 600 acres, a high of 400 acres planted to corn in one of the last four years, and 0 acres planted to corn before this year’s final insurance plant date. Prevent plant for corn can be taken on 400 acres (400 acre high of last four years – 0 current acres planted to corn). The remaining 200 acres can be planted to a crop other than corn or put into prevent plant for a crop that was planted on the insured unit during the last four years and its final insurance plant date has passed.

### Corn-Soybean Planting and Prevent Plant

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Within the greater corn-belt, corn and soybeans are often options for the same land and are often planted during the same time window. However, corn's final insurance plant date commonly comes before soybean's final insurance plant date for a given geographical area (Schnitkey and Zulauf, *farmdoc daily*, [May 7, 2019](#)).

$$\text{Prevent Plant Payment per Acre} = \begin{matrix} \text{insured unit's APH (Average Production History) yield} \\ \text{times insured unit's elected insurance coverage level} \\ \text{times crop's projected insurance price} \\ \text{times crop's prevent plant coverage factor} \end{matrix}$$

The prevent plant coverage factor is set by RMA based on analysis of the share of production costs incurred before planting. It currently is 55% for corn and 60% for soybeans. Prior to the 2017 crop, corn's prevent plant coverage factor was 60%. RMA reduced it after reviewing pre-plant costs (USDA, RMA, [September 20, 2018](#) and [November 2018](#)). For a more in-depth discussion of the prevent plant coverage factor and prevent plant decision, see Zulauf, et al. (*farmdoc daily*, [June 27, 2019](#)).

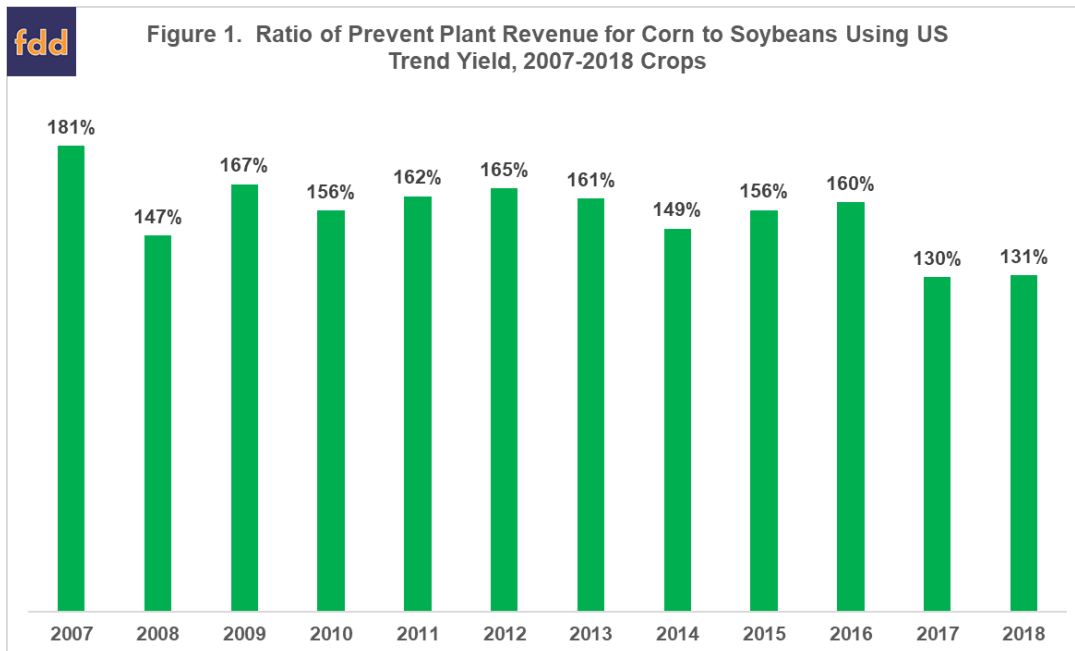
### Corn-Soybean Prevent Plant Payment

Prevent plant payment for 2019 US corn and soybeans is estimated using the above formula, US linear trendline yield as the APH insurance yield (see Data Note 1), average 2019 insurance coverage level elected by US farms, and projected insurance price for the February price discovery period. Given these values (see Table 1), prevent plant payment is 40% higher for corn than soybeans (\$284/acre vs. \$202/acre). If the above example farm had intended to plant 300 acres to both corn and soybeans, taking corn prevent plant payment on 400 instead of 300 acres is worth \$8,200 to the farm (\$82/acre times 100 acre difference between the 4-year high of 400 corn acres and 300 intended corn acres).

**Table 1. Example of Prevent Plant Payment for 2019 Crop Year**  
(Data are from US Department of Agriculture, Risk Management Agency, November 2018)

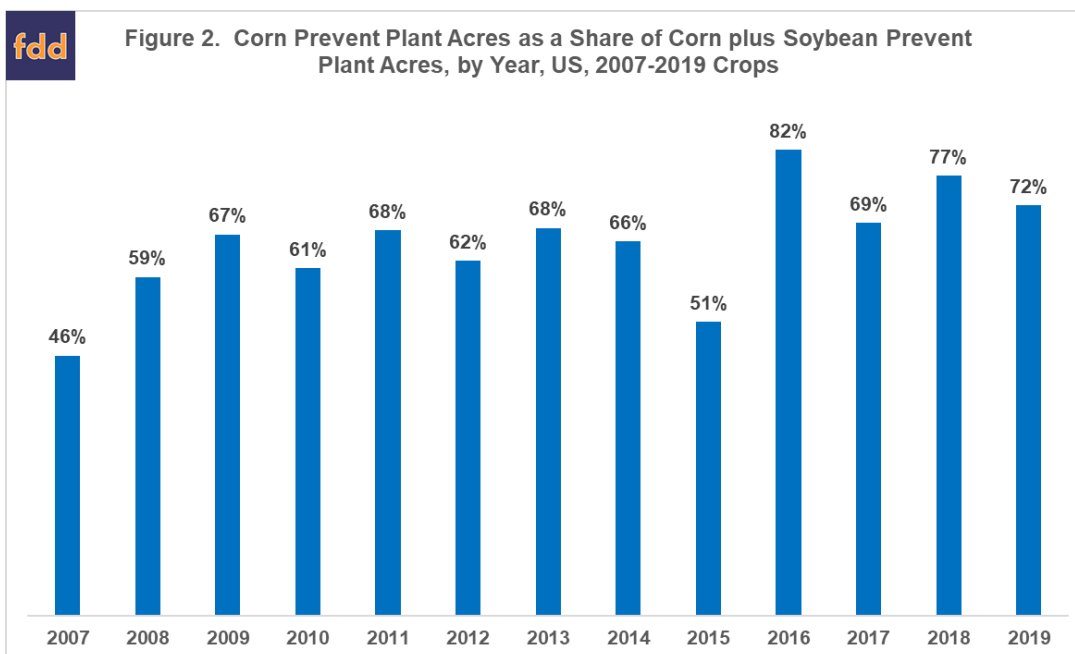
	corn	soybeans
APH (Average Production History) Yield	170.3	46.9
Average Insurance Coverage Level, 2019 crop	75.80%	75.30%
Projected Insurance Price, February Discovery Period	\$4.00	\$9.54
Prevent Plant Coverage Factor	55.00%	60.00%
Prevent Plant Payment / Acre	\$284	\$202

The difference between corn and soybean prevent plant payment for 2019 is consistent with the difference for the 2007-2018 crops (see Figure 1 and Data Note 2). Prevent plant payment per acre is at least 30% higher for corn in each year using the same calculation as in the preceding paragraph.



### Corn-Soybean Prevent Plant Acres

Because prevent plant payment per acre is notably higher for corn than soybeans and given the planting interactions between corn and soybeans, it should not be a surprise that corn dominates soybean prevent plant acres. Using USDA, FSA data; corn's share of corn-soybean prevent plant acres in 2019 is 72% vs. corn's 54% share of corn-soybean plant-failed acres (see Figure 2 and Data Notes 2 and 3). Over 2007-2019, corn's average share of corn-soybean prevent plant acres is 65%, but it climbs to 75% for 2015-2019. In contrast, corn's average share of FSA reported corn plus soybean plant-failed acres is 53% for 2007-2019 and 51% 2015-2019.



### Summary Observations

- Prevent plant payment per acre is almost always higher for corn than soybeans.
- In 2019, corn's average prevent plant payment is estimated to be \$82/acre or 40% higher than soybean's average prevent payment per acre.

- An incentive thus exists to take prevent plant for corn to the maximum extent possible whether corn or soybeans is the intended crop.
- Consistent with this financial incentive, corn comprises 72% of corn-soybean prevent plant acres in 2019 but only 54% of corn-soybean planted and failed acres.
- Thus, part of the explanation for the large number of corn prevent plant acres in 2019 is likely to be that acres intended to be planted to soybeans were claimed as corn prevent plant acres.
- This story for the 2019 crop is consistent with historical experience. Moreover, corn's share of corn-soybean prevent plant acres appears to be increasing over time.
- A prevent plant claim can occur only after an insured loss, such as weather, delays planting until after the final insurance plant date. Given this condition and assuming everything else is constant, the higher the prevent plant payment, the greater the incentive not to plant, specifically soybeans in the case examined in this article. Fewer acres, smaller supply, and higher prices result, negatively impacting input suppliers, output users, and consumers (Zulauf, et al., [June 27, 2019](#)).
- The preceding point prompts a policy question, "Is it good public policy for US society as a whole to allow corn prevent plant payment to be claimed for acres intended to be planted to soybeans?"
- Should the US body politic decide that this is a policy issue, potential policy options include:
  - (1) Set the prevent plant payment rate at the
    - (b) weighted average rate based on acres planted on the farm over the last 4 years, or
    - (a) at the lowest payment rate among crops planted on the insured unit over the last 4 years.
  - (2) Make prevent plant a stand-alone option, similar to Harvest Price Option, which farms buy for a specified number of acres of a specified crop.

#### Data Notes

1. Corn's trendline equation for yield per planted acre since 1974 has an intercept of 83.33 bushels / planted acre with a +1.93 bushel / planted acre annual increase in yield.  $R^2$  explanatory power of the time trend is 83%. Soybean's trendline equation has an intercept of 25.65 bushels / planted acre with a +0.47 bushel / planted acre annual increase in yield.  $R^2$  explanatory power is 86%.
2. Calculations start with 2007 because it is the first crop year FSA data on prevent plant and planted plus failed acres are available electronically.
3. FSA reports a single, consistent set of prevent plant acres and planted plus failed acres. RMA is an alternative source of data on prevent plant. Prevent plant acres differ somewhat between FSA and RMA. Farms are told to report the same number of acres to crop insurance and FSA, but not all farms are in commodity programs or buy insurance. FSA and RMA also classify prevent plant acres somewhat differently. USDA, NASS (National Agricultural Statistical Service) is an alternative source for planted acres. FSA and NASS use somewhat different definitions of planted acres. For a comparison of these data sources, see [USDA, Office of the Chief Economist, 2019](#)).

#### References and Data Sources

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