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Tracking Corn and Soybean Prevent Plant in 2022

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Crop insurance's prevent plant provision has the potential to reduce planted acres if weather delays planting until prevent plant's first decision date. This potential is especially relevant in 2022 with its tight supply-demand balance. Planting progress as of May 15 and its potential insights into corn and soybean prevent plant acres in 2022 are discussed in this article.

Overview of Prevent Plant

Prevent plant is a provision in publically subsidized individual farm yield and revenue insurance. Specifically, if an insured cause of loss, such as excessive moisture, delays planting to or after a date set by USDA, RMA (US Department of Agriculture, Risk Management Agency), a farmer has the decision to plant a crop or not plant a crop and take a prevent plant payment. The initial prevent plant date varies by region and crop. Prevent plant is, in effect, a conditional land set aside decision for the farmer triggered when an insured cause of loss delays planting until a RMA set date. For in-depth discussion of prevent plant, see the May 3, May 4, and May 13, 2022 *farmdoc daily* articles.

Tracking 2022 Corn Prevent Plant

The three northern states in Table 1 account for 43% of US corn prevent plant acres reported by USDA, FSA (Farm Service Agency) since 2007 and 20% of intended US corn acres in 2022 reported in the March 2022 acreage report. Planting progress lags normal in the US and is even further behind in these three important corn states. Minnesota and North Dakota stand out, with North Dakota planting progress still in single digits as of May 15. Prevent plant's first decision date is May 25 for most of North and South Dakota and May 31 for the majority of Minnesota (*farmdoc daily* May 3, 2022).

Table 1. Corn Prevent Plant Tracking Data, US, 2022 Crop Year

Area	2022 intended planted acres	average prevent plant acres	1st prevent plant decision date	2022 % planted	5-year average % planted
	3/30/22	2007-21		5/15/22	2017-21
North Dakota	3,600,000	383,275	5/25 or 5/31	4%	41%
Minnesota	7,800,000	174,274	5/25 or 5/31	35%	72%
South Dakota	6,200,000	503,299	5/25 or 5/31	31%	54%
US	89,490,000	2,491,716		49%	67%

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Tracking 2022 Soybean Prevent Plant

Table 2 contains the same data for soybeans. The three states account for 41% of US soybean prevent plant acres since 2007 and 23% of intended US soybean acres in 2022. Planting progress lags less for US soybeans than US corn. Like corn, soybean planting lags more in these states than for the US, with Minnesota and North Dakota again lagging considerably behind normal. Prevent plant's first decision date is June 10 for all three states.

Table 2. Soybean Prevent Plant Tracking Data, US, 2022 Crop Year

Area	2022 intended planted acres	average prevent plant acres	1st prevent plant decision date	2022 % planted	5-year average % planted
	3/30/22	2007-21		5/15/22	2017-21
Minnesota	8,000,000	63,542	6/10	11%	47%
North Dakota	7,000,000	197,633	6/10	2%	24%
South Dakota	5,700,000	201,121	6/10	15%	28%
US	90,955,000	1,136,888		30%	39%

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Historical Relationship between Planting Progress and Prevent Plant Acres

Figures 1 and 2 present the relationship since 2007 between US prevent plant acres and US planting progress at the end of week 2 in May (week 19 in USDA, NASS (National Agricultural Statistical Service reports) for corn and soybeans, respectively. These relationships need to be used with caution. There are only 15 observations and a notable outlier is the large prevent plant year of 2019. Both the corn and soybean relationships are statistically significant at the 97% confidence level. As expected, they are negative, implying faster planting progress is related to fewer prevent plant acres. However, explanatory power is limited. Unexplained variation is two to three times more than the variation explained by planting progress. Using the US planting progress as of May 15, 2022, these relationships suggest 2022 prevent plant acres of 3.9 million for corn and 1.1 million for soybeans. Removing the 2019 observation results in estimates of 2.4 million acres for corn and 0.9 million acres for soybeans (see Data Note 1). Prevent plant acres averaged 2.5 million for corn and 1.1 million for soybeans over 2007-2021 (see Tables 1 and 2). The averages without 2019 are 1.9 million for corn and 0.9 million for soybeans.

Figure 1. Prevent Plant Acres and Plant Progress, corn, US, May 9 - 16, 2007-2021

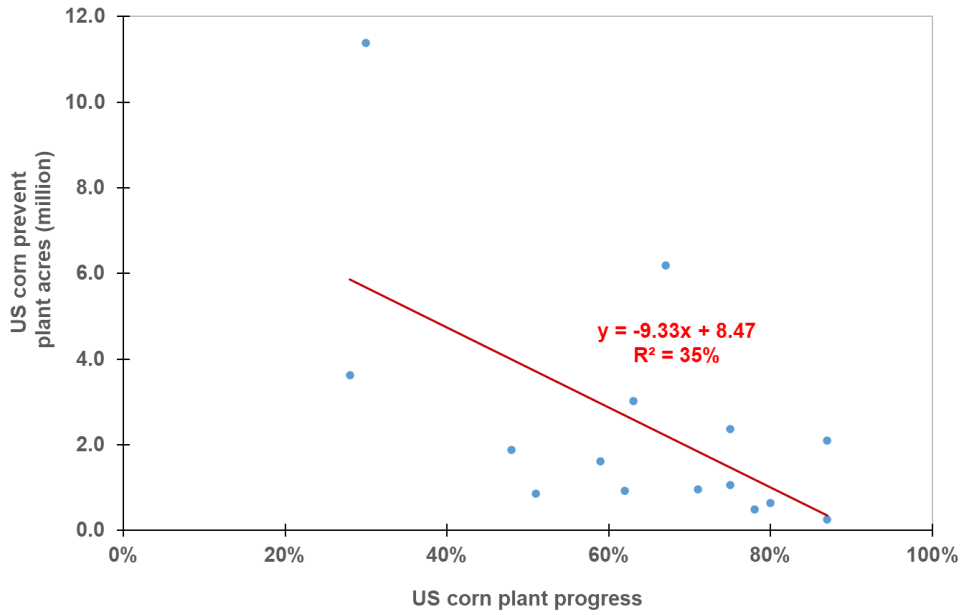
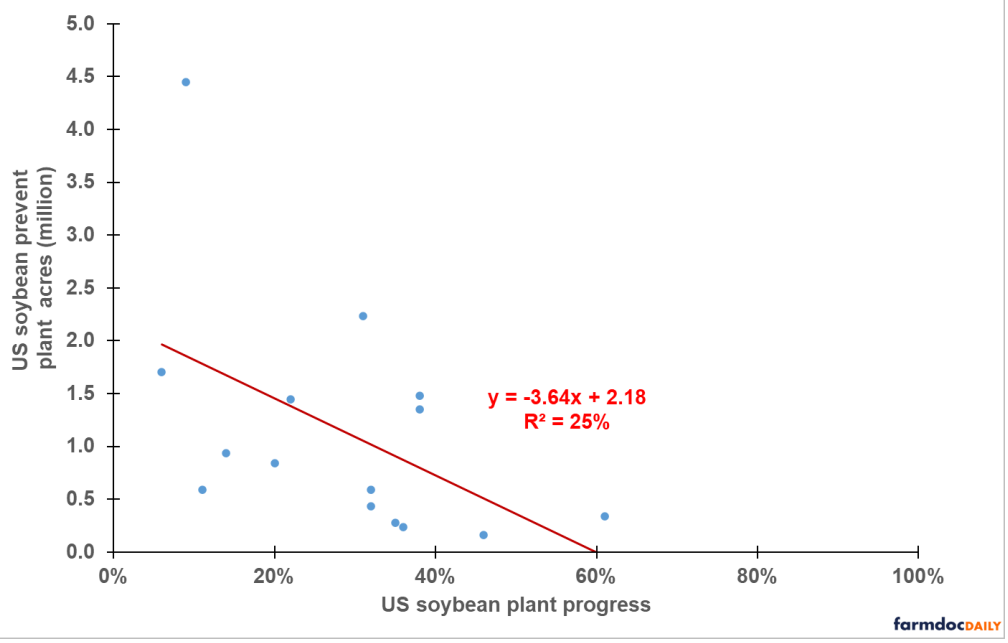


Figure 2. Prevent Plant Acres and Plant Progress, Soybeans, US, May 9 - 16, 2007-2021



Summary Observations

US planting progress for corn and soybean lags behind normal progress at the end of week 2 in May.

Historical relationships suggest US corn and soybean prevent plant acres in 2022 will be average to above average. Prevent plant acres are more likely to be above average for corn.

The historical relationships should be used with a large dose of caution due to a limited number of observations, potential outlier impacts of the large 2019 prevent plant acres, and the large share of variation in prevent plant acres not explained by planting progress as of week 2 in May.

North Dakota, Minnesota, and South Dakota will be particularly important in determining 2022 corn and soybean prevent plant acres. Weather in these states during the next 2 to 4 weeks will be critical. Prevent plant's first decision date for corn is May 25 in much of North and South Dakota and May 31 in the majority of Minnesota. The uncertainty in these important states suggests a non-zero probability that prevent plant acres could end up exceeding what US data suggests, especially for corn.

Final reminders: (1) weather trumps any crop forecast and (2) history is a compass, not GPS tracking. Use accordingly.

Data Note 1

Removing the 2019 observation results in this corn regression equation: prevent plant acres = 4.06 – 3.31 times planting progress; R^2 explanatory power is 12%. The soybean regression equation is: prevent plant acres = 1.40 – 1.66 times planting progress; R^2 explanatory power is 14%.

References and Data Sources

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