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Weekly Farm Economics: Prevent Plant Decisions in Early to Middle of June

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Many unplanted acres remain across the Corn Belt and in Illinois. As of the week ending on June 9, only 73% of the intended corn acres and 49% of the soybean acres have been planted in Illinois (*Planting Progress*, June 10, 2019). In this article, prevent planting decisions on intended corn acres are examined first. For farmers that have not incurred costs, prices must rise before planting corn in mid-June will return more than taking prevent planting payments, for those with that insurance option. In most circumstances, a corn prevent planting payment will have higher returns than planting soybeans. Then, decisions on intended soybean acres are examined. Planting soybeans have the potential for higher returns compared to taking a soybean prevent planting payment until about a week after the Illinois soybean final plant dates. Before prevent planting decisions are discussed, a policy update is provided.

Policy Update

USDA issued a press release on June 10th providing some details of farmer relief:

- The 2019 Market Facilitation Program (MFP) payments will be based on acres planted. A per acre rate will be established for each county. Acres planted to eligible MFP-crop will receive the same per acre rate. The county rates were not released.
- A minimum MFP payment will be received if a cover crop is planted and that cover crop has the potential to be harvested, providing a way to get a minimal MFP payment on prevent planting acres. What constitutes a harvestable cover crop was not defined. We suspect the payment will be modest and will not include this payment in the analysis below.
- The press released indicated that disaster assistance in the "Additional Supplemental Appropriations for Disaster Relief Act of 2019" will be targeted to Secretarial or Presidentially-

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declared disaster areas. The nature of this designation was not discussed. Currently, there are eleven counties in Illinois declared a 2019 disaster county (Alexander, Gallatin, Hardin, Jackson, Massac, Monroe, Pope, Pulaski, Randolph, Rock Island, and Union counties). These counties may or may not be in a targeted area. This assistance could increase the prevent planting payment factor. The press release suggested modest increases. The bill authorizes use of the higher of projected or harvest price in prevent planting payment calculations. Because of the uncertainties in targeted areas, we will not include higher prevent planting payments in the analysis below.

Intended Corn Acres

The final plant date for crop insurance purposes has arrived in all of the Midwest. June 5 was the final planting date for corn in Michigan, Ohio, Indiana, and most of Illinois (see Figure 1, *farmdoc daily*, May 7, 2019). As a result, a prevent planting indemnity is available to farmers who have purchased Revenue Protection (RP) and other COMBO plans (Yield Protection and RP with the harvest price exclusion). A prevent planting indemnity can be taken any time during the late planting period which runs from June 6 through June 25 in Illinois. Farmers have the following options on intended corn acres not yet planted:

- 1. Take a prevent planting indemnity,
- 2. Plant corn,
- 3. Plant soybeans, or
- 4. Take 35% of the corn prevent planting indemnity and plant soybeans after the late planting period (June 25 in Illinois).

Many farmers continue to struggle to get all intended corn acres planted to corn and some have not applied pesticide or nitrogen on intended corn acres. For these acres where no costs have been incurred, our analysis suggests that planting corn likely will not yield higher returns than prevented planting unless corn price increases (*farmdoc daily*, June 4, 2019). Moreover, expected corn returns decrease the later corn is planted, thereby making the corn prevent plant a more attractive option the later planting is projected to occur. Expected corn returns become lower the later corn is planted because 1) expected corn yields decline, 2) drying cost likely increase, and 3) crop insurance guarantees decline 1% per day during the late planting period and thus potential insurance indemnities decline.

Some farmers have applied their nitrogen and pesticides. Farmers in this position likely will find returns from planting corn to be higher than returns from taking prevent planting indemnities, at least through the middle of June.

Overall, planting corn rests upon an expectation of higher prices. Currently, the December Chicago Mercantile Exchange (CME) corn contract is at \$4.50 per bushel, which will not cause planting corn to have a higher return than taking a prevent plant indemnity for farms with no costs incurred. Higher prices are possible, particularly if growing conditions this summer are not conducive for yields. Yet, higher prices are not guaranteed.

Another option for an intended corn acre is to plant soybeans (option 3). Extreme caution should be used when planting soybeans on an acre eligible for a corn prevent planting indemnity. Under most circumstances, soybeans have a lower expected return than taking a corn prevent planting indemnity.

Finally, farmers do have an option to take 35% of the corn prevent plant indemnity and plant soybeans after the late planting period. At this point, this decision does not need to be made. This option can be evaluated closer to the end of June when market signals can be evaluated to see if this option is advisable

Intended Soybean Acres

The final planting date for soybeans is June 15 in northern Illinois and June 20 in central and southern Illinois Illinois (see Figure 2, *farmdoc daily*, May 7, 2019). Until the final planting date is reached, farmers need to continue to plant intended soybean acres to soybeans or another crop. If all intended corn acres have been planted, corn could be planted on intended soybean acres. These acres will be covered by the corn insurance policy for that county. In certain situations, planting corn may have higher expected

returns than planting soybeans. Most likely, planting corn on an intended soybean acre only is advisable up until the final planting date for soybeans.

Once the final soybean planting date is reached, the following two options are realistic to consider for most Midwest situations:

- 1. Take a prevented planting indemnity on soybeans, or
- 2. Plant soybeans.

A farmer could plant another crop on intended soybean acres, but the economics of those alternatives likely are not competitive with soybeans after the soybean final planting date has arrived. A farmer with qualifying insurance coverage could also wait till the end of the late planting period (25 days after the final planting date) to plant another crop for harvest besides soybeans, resulting in a reduction to a 35% prevented planting indemnity. Viable alternative crop options to be planted on intended acres are difficult to identify aside from specific situations such as a livestock farmer who needs the acres for feed grains.

When considering the prevent plant or plant options for soybean, the following is useful to calculate: 1) net return from prevented planting and 2) minimum net return from planting soybeans. These calculations are illustrated for an 85% RP policy with a Trend Adjusted Actual Production History (TA-APH) yield of 60 bushels per acre. The 2019 projected price of \$9.54 per bushel is used.

Net return from prevented planting: The prevent payment factor for soybeans is .60. An option of 0.65 prevent plant payment factor exists but it must have been purchased during the insurance enrollment period. For the .60 payment factor, the prevent planting indemnity is:

\$292 per acre = .60 PP factor x .85 coverage level x 60 TA-APH yield x \$9.54 projected price

From the prevented planting indemnity, costs of \$40 per acre will be subtracted to cover weed control costs and the crop insurance premium. As a result, net return from prevent plant is:

\$252 per acre = \$292 PP payment - \$40 costs.

Minimum net return from planting soybeans: Revenue is often lowest when crop insurance elected by the farmer will just make a payment. This revenue can thus serve as a comparison to evaluate the risks of planting. In the case of late planting, it also often is a reasonable expectation of net return from planting.

To calculate minimum net revenue, a price and yield that just triggers crop insurance indemnities is needed. Prices at the \$9.54 projected price will be used. A \$.40 basis is subtracted from the \$9.54 projected price to reflect the fact that farmers receive funds based on cash sales in a local area. As a result, the price that will be used is \$9.14 (\$9.54 projected price minus \$0.40 basis). At that price level, a yield just at the TA-APH yield times the coverage level will trigger a payment. Note that the guarantee must be adjusted down 1% per day after the final planting date. Soybeans will be assumed to be planted 2 days after the final planting in a yield of 50 bushels per acre (60 TA-APH yield x .85 coverage level x (1 - .02)). The 50 bushel yield and \$9.14 price gives revenue of \$457 per acre (50 yield x 9.14 price).

The minimum net return will equal this minimum revenue minus costs yet to be incurred, plus a per acre estimate of Market Facilitation Payment (MFP). In our estimate, a \$260 cost and \$50 MFP payment is used. The net return from planting soybean at its lowest level is:

\$247 per acre = \$457 revenue - \$260 costs + \$50 MFP payment,

Comparison: Note that the minimum net return from planting soybeans is \$5 less than the net return from taking the prevent plant indemnity: \$247 minimum net return from planting compared to \$252 net return from prevent plant. Other than reductions to APH yield because of a low 2019 yield, late planting of soybeans presents little risk, particularly in 2019, and some upside return potential. The downside risk will become greater the further past the final planting date because the crop insurance guarantee will continue to decline.

The above analysis is based on several assumptions:

- The 2019 MFP payment will be near \$50 per acre, a level that has not been announced by the Farm Service Agency.
- Costs yet to be incurred are \$260 per acre. Costs can vary from this estimate. Some farmers have purchased treated soybean seeds, which cannot be returned. Alternatives for storing this seed should be considered. This seed could also be used as a cover crop for prevent planting acres.
- Prevented planting payments will not change. There is some discussion that prevented payments may be increased because of a recently passed disaster assistance bill. Increases in prevented planting payment would increase the returns from prevent planting.

For the above analysis, there is some upside to planting soybeans. Yields could exceed the 52 bushels per acre minimum level resulting in higher return. Prices could also increase above the \$9.14 cash price used in the minimum guarantee calculation, although current fall bids in central Illinois are \$.60 below the \$9.14 price used in minimum revenue calculations. While there is an upside, the upside on soybeans appears limited. This suggests taking the soybean prevent planting payment may be the best alternative, particularly the later soybeans are planted.

Summary

Prevent planting decisions will continue to be difficult. The advisability of planting corn versus taking a corn prevent plant indemnity will end soon, if it hasn't already passed. Planting soybeans has limited risk as compared to taking a soybean prevent plant indemnity, particularly if planting can occur near the final planting date. However, upside of soybean planting likely is not large and will deteriorate during the late planting period. Many will find that the reduced upside potential and higher risks warrant not planting soybeans about a week after the final planting date. Moreover, some farmers may find taking the prevent planting payment immediately after the final plant date has arrived a proper alternative.

Because each farm situation is unique, we suggest using the *Prevent Planting Module* to aid in calculations of returns from alternatives. The *Prevent Planting Module* is part of the *Planting Decision Model*, a Microsoft Excel spreadsheet available here on the *farmdoc* website. Moreover, alternatives should be discussed with crop insurance agents.

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