



Weekly Farm Economics: Economics of Prevented Planting in Corn

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

May 25, 2011

farmdoc daily (1):73

Recommended citation format: Schnitkey, G. "[Economics of Prevented Planting in Corn.](#)" *farmdoc daily* (1):73, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, May 25, 2011.

Permalink: <http://farmdocdaily.illinois.edu/2011/05/economics-of-prevented-plantin-1.html>

http://www.farmdoc.illinois.edu/podcasts/fefo/FEFO_11_10.mp3

Farmers will be able to take prevented planting payments once the "final planting date" is reached in late May or early June. In this article, net returns from taking a prevented planting are compared to expected net returns from planting corn and soybeans. Examples suggest prevented planting have returns competitive with planting corn or soybeans. Hence, farmers could have large incentives to take prevented planting payments once the final planting date has been reached. Number of acres on which prevented planting are taken will depend on 1) weather and 2) expected commodity prices at harvest-time.

Net returns from prevented planting

Farmers can take prevented planting payments when 1) the final planting date has been reached, 2) the crop has not been planted for insurable reasons, and 3) the farmer has purchased one of the plans within the COMBO product (RP, RP with exclusion, or YP). Final planting dates are county specific. Common final planting dates are May 25th, May 31st, or June 5th, although some counties will differ from those dates (See [Prevented Planting Provision in Crop Insurance](#) for more details on prevented planting). When considering prevented planting, farmers should consult with crop insurance agents to assure that all requirements are met and to make sure that prevented planting can be taken on the desired number of acres as historical plantings may limit prevented planting acres.

Unless prevented planting buy-up coverage has been purchased, prevented planting payments equal 60 percent of the minimum guarantee for crop insurance. As an example, take a farm with an 150 bushel Actual Production History (APH) yield that purchased a Revenue Protection (RP) policy with an 80 percent coverage level. The projected price in 2011 is \$6.01 per bushel for corn. The prevented planting payment equals \$433 per acre (150 bushel APH yield x \$6.01 projected price x 80% coverage level x 60% prevented planting factor).

Higher coverage levels have higher prevented planting payments. Panel A of Table 1 shows an illustration of prevented planting for the above example with a 150 bushel APH yield. Prevented planting payments are \$406 per acre for a 75 percent coverage level, \$433 per acre for 80 percent coverage level and \$460 per acre for 85 percent coverage level. As the coverage level of the crop insurance product

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from farmdoc daily. Guidelines are available [here](#). The farmdoc daily website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies [here](#).

increases, there is more incentive to take the prevented planting payment.

Table 1. Comparison of Prevented Planting, Planting Corn, and Planting Soybeans.

Panel A. Take Prevented Planting Payment			
	Coverage Level		
	75%	80%	85%
APH yield (bu. per acre)	150	150	150
Projected price (\$ per bu.)	\$6.01	\$6.01	\$6.01
Coverage level	75%	80%	85%
Prevented planting payment ¹	\$406	\$433	\$460
Weed control costs	15	15	15
Crop insurance	9	17	32
Net returns (\$ per acre)	\$382	\$401	\$413
Panel B. Plant Corn or Soybeans			
	Corn	Soybeans	
Expected yield (bu. per acre)	120	45	
Expected price (\$ per bu.)	\$6.40	\$13.30	
Crop insurance payment	0	0	
Revenue (\$ per acre)	\$768	\$599	
Direct costs (\$ per acre)			
Fertilizers	125	50	
Pesticides	50	40	
Seed	90	55	
Drying	25	0	
Storage	11	5	
Crop insurance	17	14	
Power costs (\$ per acre)			
Machine hire	9	9	
Field cultivate	9	9	
Plant	12	12	
Spray	3	3	
Combine	35	30	
Trucking	9	9	
Costs yet to be incurred	\$395	\$236	
Expected net returns (\$ per acre)	\$373	\$363	
Break-even yields for planting to have same return as taking prevented planting payment (bu. per acre)			
75% coverage level	121	46	
80% coverage level	124	48	
85% coverage level	126	49	

¹ Equals APH yield x projected price x coverage level x 60%. The 60% factor is the standard. Buy up is available.

² Crop insurance payments can occur if revenue is below the guarantee.

Net returns from prevented planting are compared to expected net returns from planting corn and soybeans. As illustrated in Panel A of Table 1, net returns from prevented planting equal the prevented planting payment minus weed control costs and crop insurance premiums. Weed control costs are estimated at \$15 per acre. Crop insurance premium costs must be paid for prevent planting and can vary from premium costs for corn when enterprise units have been selected. Enterprise units have planting requirements that must be met, otherwise farmers will be charged based on basic units, which have higher premiums than enterprise units. The example in Table 1 assumes that planting requirements are

met and insurance premiums represent enterprise units.

Expected net returns from planting corn or soybeans

Panel B of Table 1 shows estimates of net returns from planting corn and soybeans. In arriving at these estimates, expected yields and expected prices are used. The example uses expected yields of 120 bushels for corn and 45 bushels for soybeans. These expected yields will become lower over time. To aid comparisons, yields to breakeven with taking the corn prevented planting payment are shown at the bottom of Panel A. Breakeven yields for corn are 121 bushels for a 75 percent coverage level policy, 124 bushels for an 80 percent coverage level, and 126 bushels for an 85 percent coverage level policy.

Expected prices represent harvest-time prices. The \$6.40 corn price and \$13.30 soybean price are near cash bids for harvest delivery in the third week of May. Higher expected prices lead to more of an economic incentive to plant.

In calculating net returns, costs that have not already been incurred should be subtracted from revenue. In the example, costs are \$395 per acre for corn and \$263 per acre for soybeans. If a cost has been incurred and cannot be recovered, then it should be excluded. Take as an example nitrogen fertilizer that has been applied. This cost has been incurred and should be excluded from corn costs.

In the above example, corn has net returns of \$373 per acre and soybeans have net returns of \$363 per acre. These expected returns for planting are below the net returns from prevented planting (\$382 per acre for 75 percent coverage level, \$401 for 80 percent coverage level, and \$466 for 85 percent coverage level). This suggests that taking the prevented planting payment has the highest return for this situation.

Considerations other than net returns

Planting either corn or soybeans has more risks than taking the prevented planting payment because expected yields and expected prices are not known. Theory suggests expected net returns from corn and soybeans should exceed net returns from prevented planting to compensate the farmer for bearing risk.

If corn is planted, there will be an insurance guarantee; however, the guarantee will decrease by 1 percent per day for each day after the final planting date, reaching 60 percent of the original guarantee when 25 days have passed from the final planting date. The decreasing guarantee increases risk the more days after the final planting date. Hence, the lowering guarantee, as well as lowering expected yields, will create more incentives to take prevented planting the later prospective planting takes place.

The above prevented planting example assumes that a crop is not planted on prevented planting acres. Farmers can plant a crop after 25 days have passed from the final planting date. More details on these provisions are provided the May 19th FarmdocDaily entry entitled [Prevented Planting Provision in Crop Insurance](#).

What is different this year from previous years?

The 2008 Farm Bill introduced higher subsidies for enterprise units. These higher subsidies encouraged farmers to purchase enterprise units and increase coverage level. In 2008, 46 percent of acres using revenue crop insurance products for corn were insured with 75 percent of higher coverage levels. Use increased from 46 percent in 2008 to 65 percent in 2010. It is likely more acres were insured with higher coverage levels in 2011.

Higher coverage levels can lead to more incentives to take prevented planting payments, as prevented planting payments are larger with higher coverage levels. As a result, more acres could go into prevented planting in 2011 as compared to previous years.

Factors impacting number of prevented planting acres

From this point on, prevented planting acres will be impacted by two factors:

1. Weather. Dry weather in the eastern Corn Belt of upper Midwest would allow farmers to plant corn.
2. Expectations of harvest-time commodity prices. Higher commodity prices will increase expected returns from planting, leading to more incentives to plant. Hence, increases in Chicago Mercantile

Exchange (CME) futures likely would lead to increases in planted acres and vice versa.

Summary

For farmers who have purchased the COMBO product with high coverage levels, taking a prevented planting payment will be a viable alternative compared to planting corn and soybeans. Weather and expected prices will impact the number of prevented planting acres.