

# Multiple Peril Crop Insurance

Multiple Peril Crop Insurance (MPCI) is a broad-based crop insurance program regulated by the U.S. Department of Agriculture and subsidized by the Federal Crop Insurance Corporation (FCIC). Crops eligible for MPCI coverage in Iowa include corn, soybeans, oats, wheat, seed corn, popcorn, barley, potatoes, sweet corn, canning beans, dry beans, forages, grain sorghum, green peas, tomatoes, and nursery stocks. Not all of these crops can be insured in all counties.

## What causes of yield losses are covered?

For most crops, MPCI covers unavoidable production losses caused by drought, excessive moisture, hail, wind, frost/freeze, tornado, lightning, flood, insect infestation, plant disease, excessive temperature during pollination, wildlife damage, fire, and earthquake.

MPCI does not cover losses resulting from poor farming practices, low commodity prices, theft, and specified perils that are excluded in some policies. There are specific restrictions on some crops based on acceptable farming practices.

## How much coverage can I purchase?

There are two decisions that determine the amount of protection obtained from MPCI:

- the level of yield coverage chosen
- the level of price coverage chosen

Your insurance yield is based on your actual production history (APH), which is an estimate of your average yield on the insured unit for four to ten consecutive years.

## Level of coverage

You can insure your crop at from 50 to 85 percent of your APH yield, in increments of 5 percent. Your

yield guarantee per acre is equal to your APH insurance yield multiplied by the level of coverage you choose.

### Example 1. Guaranteed yield

Assume: 130 bu. APH insurance yield  
65% level of coverage

Yield guarantee equals:  
 $130 \text{ bu.} \times 75\% = 97.5 \text{ bu. per acre}$

## For what price is my crop insured?

You must select an indemnity price level at which yield losses are converted into cash. For example, 2003 maximum price elections set by the Risk Management Agency (RMA) for selected crops were:

corn	\$2.20/bu.
wheat	\$2.90/bu.
soybeans	\$5.15/bu.
oats	\$1.40/bu.
grain sorghum	\$2.10/bu.

You can choose an indemnity price between 55 and 100 percent of these maximum elections.

A low cost, minimum level disaster policy, called “catastrophic” coverage, is available. It insures your crop for 50 percent of your APH yield and 55 percent of the RMA price. More information can be found in ISU Extension Publication FM-1852, *Catastrophic Crop Insurance*.

## How are indemnity payments calculated?

If your actual average yield (adjusted for quality) is equal to or greater than your yield guarantee, no indemnity is paid. If your average yield per acre is less than your yield guarantee, the indemnity paid is equal to the yield difference times the indemnity price, times the number of acres insured.

### Example 2. Indemnity payment

Assume:

97.5 bu. yield guarantee  
\$2.20 price election  
300 acres insured  
81 bu. actual yield

Indemnity payment:

97.5 bu. - 81 bu. = 16.5 bu.  
16.5 bu. x \$2.20 = \$36.30  
\$36.30 x 300 acres = \$10,890

Indemnity payments are taxable income. However, they can be reported in the tax year following harvest if you normally sell half or more of your crop then.

### How much does crop insurance cost?

Premium rates are based on the coverage level chosen and the loss history for the county in which you farm. The premium rate, as a percent of the dollar value of protection, also varies with your APH yield.

Your premium per acre is calculated as follows:

insurance APH yield  
x percent yield coverage election  
x indemnity price election  
x premium rate  
x subsidy factor

### Example 3. Premium cost

Assume:

APH yield of 130 bu./acre  
75 percent coverage level  
Indemnity price of \$2.20/bu.  
Premium rate of 4.4 percent  
Subsidy factor of .45

The premium is: 130 bu./acre x 75% x \$2.20/bu. x .044 x .45 = \$4.25 per acre

If you elect to insure all your acres of the same crop as a single unit, the premium will be discounted by 10 percent. There is also a processing fee of \$100 per crop for coverage levels less than 65 percent of APH yield and 100 percent of the RMA price. For higher coverage levels the fee drops to \$30 per crop.

You have the option of buying MPCCI with or without hail and fire coverage. However, if you choose to opt

out of the hail and fire insurance component of MPCCI, an equivalent dollar amount of hail and fire coverage must be purchased with a separate hail and fire policy. MPCCI premiums will be reduced if hail and fire coverage is excluded.

Premiums are generally due during the normal harvest period. If they are not paid within 30 days of billing interest may be charged for late payment. If an indemnity is paid, the premium cost will be deducted from the indemnity. Premium payments are a tax deductible expense.

To encourage broader participation, Congress authorized FCIC to subsidize MPCCI premiums. The percent of the premium that is paid from this subsidy varies from 100 percent for catastrophic level coverage to about 38 percent or less for the highest levels of coverage.

### How is actual production history yield computed?

Your APH yield is a simple average of from four to ten consecutive years of actual yields based on your production records. If you cannot prove four consecutive years of yields, "T yields" will be substituted for the missing years. The T yields vary by county, and are equal to the most recent 10-year county average yield.

If only one year of the four is missing, the T yield is used for the missing year. However, if two or more years are missing, you can use only a percentage of the T yield, as shown below.

1 year missing - use 100 percent of T yield  
2 years missing - use 90 percent of T yield  
3 years missing - use 80 percent of T yield  
4 years missing - use 65 percent of T yield

Estimated premiums for MPCCI and other types of crop insurance policies can be obtained from a crop insurance agent or the following internet site:  
[www.farmdoc.uiuc.edu/cropins/](http://www.farmdoc.uiuc.edu/cropins/)

In Example 4, the APH yield ranges from 130 bushels if yields can be proven for all four years, to only 74 bushels if no yields can be proven. If you select the 65 percent level of coverage, the yield guarantee would range from 85 bushels to 48 bushels per acre.

#### Example 4. Computing the APH yield

Assume:

Your actual yields for four consecutive years are shown below. The T yield for corn is 114 bushels per acre in your county.

1st year yield = 168 bu.  
2nd year yield = 70 bu.  
3rd year yield = 153 bu.  
4th year yield = 130 bu.  
APH yield = 130 bu. avg.

Assume you are missing records for one or more of the four years.

FSA yield = 125 bu./acre  
T yield = 114 bu./acre

missing	missing
<u>one year</u>	<u>two years</u>
168	168
70	70
153	103 (T x 90%)
<u>114 (T x 100%)</u>	<u>103 (T x 90%)</u>
126 bu. avg.	111 bu. avg.

missing	missing
<u>three years</u>	<u>four years</u>
168	74 (T x 65%)
91 (T x 80%)	74 (T x 65%)
91 (T x 80%)	74 (T x 65%)
<u>91 (T x 80%)</u>	<u>74 (T x 65%)</u>
110 bu. avg.	74 bu. avg.

#### What if my crop is planted late?

Late planting and prevented planting coverage are included as automatic features of MPCI. There are two time periods that affect this coverage: the **late planting period** and the **prevented planting period**.

#### Late planting coverage

There is a 25-day late planting period. It starts on June 1 for corn and June 16 for soybeans. The production guarantee is reduced 1 percent for 25 days, for a maximum reduction of 25 percent. Premiums do not change on late planted acres.

#### Example 5. Late planting

You have an APH corn yield of 120 bu. per acre insured at the 75 percent coverage level. The production guarantee is 90 bu. per acre (120 bu. x 75% = 90 bu.). Wet weather prevents you from planting 80 acres of the crop until June 13.

The production guarantee is reduced by:  
June 1-13      1% x 13 days = 13%

The new guarantee on the 80 acres is 78.3 bushels per acre (90 bushels x 87 %).

If you are unable to plant until after the late planting period is over (June 25 for corn and July 10 for soybeans), the insured crops will be covered at 60 percent of the original production guarantee for timely planted acreage. For an added premium this minimum coverage can be raised.

#### Preventing planting coverage

If you are prevented from planting a crop at all, MPCI prevented planting coverage will guarantee you 60 percent of the original yield coverage. No other crop may be planted for harvest on these acres, although forage crops for haying and grazing are allowed.

Late and prevented planting provisions do not apply to areas smaller than 20 acres, or 20 percent of the acreage intended to be planted in the unit for units larger than 100 acres. Premiums on late planted or unplanted acres remain the same as for timely planted acres.

You must report all acres timely planted, late planted, or not planted at all within three days of either the final planting date or the date you stop planting the crop during the late planting period. It is important to remember that the yield guarantees and actual yields on late planted or prevented planted crops are averaged together with all timely planted acres in the same insurance unit rather than considered separately.

### Example 6. Prevented planting

Wet weather delays planting one entire insurance unit of corn until June 20. You decide to plant soybeans instead.

Yield guarantees:

corn	90 bu. (120 bu. x 75%)
soybeans	33 bu. (44 bu. x 75%)

Price guarantees:

corn	\$2.20 per bu.
soybeans	\$5.15 per bu.

Your soybean yield guarantee is now reduced by 5% (1% per day for five days), to 31.35 bushels. If your actual soybean yield in this field is only 30 bushels per acre, your soybean insurance payment will be \$6.95 per acre (1.35 bu. x \$5.15 per bu.).

### What if I have to replant my crop?

If an insured crop is severely damaged for a reason due to a natural peril and will not produce at least 90 percent of the guaranteed yield, you can receive a payment equal to your costs for replanting. The maximum replant coverage is equal to 20 percent of the guaranteed yield (up to 8 bushels for corn and 3 bushels for soybeans) multiplied by the price election chosen in the policy.

Even if the crop is replanted, the production guarantee is still based on the original planting date. The replant option is not available for catastrophic level coverage.

### Example 7. Replanting

Your insured soybean crop is hit with a late frost, and is projected to yield only 25 bushels per acre. You decide to replant.

MPCI coverage: 33 bu. (44 bu. x 75%) @ \$5.15.

Projected yield is less than 90 percent of the guaranteed yield (33 bu. x 90% = 29.7 bu.).

Since 20 percent of your guaranteed yield (33 bu. x 20% = 6.6 bu.) is more than 3 bushels, you can receive a maximum payment equal to the indemnity value of only 3 bushels per acre.

Maximum payment received is \$15.45 per acre (3 bu. x \$5.15).

### Other decisions about MPCI

- Consider companion hail and fire insurance. It's your choice, in any given year, whether to include hail and fire protection in the MPCI policy or insure against these specific risks under a separate policy.
- Consider *optional insurance units*. If certain location, farming practice, and record keeping criteria are met, then your acreage can be divided into separate insurance units. This means you could collect for a loss on one unit even if production on other units is more than the guarantee. For most field crops, producers who elect to insure their acreage as a single unit will receive a 10 percent premium discount.
- Consider increasing the yield coverage level or the price coverage level with supplemental policy options. These are available for an additional premium cost to borrowers who wish to have higher levels of protection.

Multiple Peril Crop Insurance offers many combinations of coverage levels, unit designations, and add-on features.

See your local insurance agent to get details about coverage and premiums available for your own farm.

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File: Economics 1-2

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