



# BRIEFING

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## Federal Crop and Crop Revenue Insurance Programs: Multiple Peril Crop Insurance (MPCI) and Catastrophic Coverage Contracts

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Federal crop insurance against individual farm yield losses in the form of multiple peril contracts has been available for some crops since 1938. Following the 1980 Federal Crop Insurance Act, the number of crops and the geographic coverage of the federal crop yield loss insurance program was greatly expanded. Beginning in the late 1980s, in addition to traditional multiple peril contracts, new policies were developed based on yield losses at the county level and offered for a limited number of crops in a limited number of counties.

Following the 1994 Crop Insurance Reform Act, a wider range of federally subsidized insurance contracts were introduced that provided protection against revenue losses and catastrophic losses.

Today, producers face a wide array of crop insurance alternatives including yield based Actual Production History (APH) insurance contracts and Revenue Insurance contracts. Not all insurance contracts are available for every crop in any given county. In some counties, Risk Management Agency (RMA) approved insurance contracts are not available for some crops. In these circumstances, producers can either utilize the Noninsured Disaster Assistance Program (NAP) or make a request for actuarial change.

Yield based APH insurance contracts include Multiple Peril Crop Insurance (MPCI) and Group Risk Plan (GRP) contracts. Under MPCI contracts, indemnity payments are triggered by low yields on an individual producer's insured acres. Under GRP contracts, indemnity payments are triggered by low county-wide yields.

Revenue insurance contracts that provide indemnities for revenue losses caused by either low yields, low prices, or both include Group Revenue Insurance Policy (GRIP) contracts, Crop Revenue Coverage Contracts (CRC), Revenue Assurance (RA) contracts, and Income

Protection (IP) contracts. Under CRC, RA, and IP revenue insurance contracts, indemnities are triggered by low revenues for an individual producer (caused either by low yields, or low prices, or both). Under GRIP contracts, indemnity payments are triggered by low average revenue for the crop in the country.

This Briefing describes and discusses Multiple Peril Crop Insurance (MPCI) contracts.

### Multiple Peril Crop Insurance (MPCI)

Producers of several major crops such as wheat have long been able to utilize federal MPCI contracts to insure against yield losses. Beginning in 1980, the scope of the MPCI program was greatly expanded both in terms of numbers of crops and numbers of counties in which MPCI contracts were available. As a result, most producers are more familiar with MPCI contracts than other more recent federal crop insurance options. The key elements of an MPCI contract are as follows.

### Insurable Areas:

A producer may purchase separate MPCI contracts for optional units, or combine optional units and insure the combined optional units as a basic unit, or combine basic units into an enterprise unit which includes all acreage planted to the crop in the same county (See Briefing No. 6 for a detailed discussion of optional, basic and enterprise units).

### APH Approved Average Yield

For each insured unit (optional, basic or enterprise), the producer must establish an APH approved average yield (See Briefing No. #7 for a detailed description of APH

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approved yields).

### Yield Elections

The producer elects the proportion of the APH approved average yield on each insurable unit against which insurance is to be purchased. Producers can insure between 50 percent and 75 percent of their APH approved average yield for most crops in most counties, although for some crops in some areas up to 85 percent of the APH yield can be insured. Many producers choose to insure 65 percent of their APH approved average yield.

### Trigger Yields

The trigger yield or yield guarantee is the producer's APH approved average yield multiplied by the producer's yield election. If the actual yield falls below the trigger yield then the producer receives an indemnity payment. In quantity terms, the indemnity payment the producer receives is equal to the difference between the trigger yield and the actual yield multiplied by the number of insured acres.

#### Example:

Producer A has an APH approved average yield of 40 bushels per acre and selects a 75 percent yield election on a 100 acre optional unit in which producer A has a 100 percent ownership share. The realized or actual yield is 20 bushels per acre:

$$\text{Trigger Yield} = (\text{Yield Election}) \times (\text{APH approved yield}) = 0.75 \times 40 \text{ bushels per acre} = 30 \text{ bushels per acre}$$

The trigger yield of 30 bushels per acre is greater than the actual yield of 20 bushels per acre. Thus the producer is eligible for an indemnity payment. In quantity terms, the indemnity payment is:

$$\text{Indemnity Payment in Quantity Terms} = (\text{Trigger Yield} - \text{Actual Yield}) \times \text{Insured Acres} = (30 \text{ bushels} - 20 \text{ bushels}) \times 100 \text{ acres} = 1,000 \text{ bushels}$$

### Predicted Prices and Price Elections

For each MPCl crop, the FCIC publishes an expected market price for the forthcoming crop year. The producer selects an indemnity price election between 60 percent and 100 percent of the predicted market price. The elected price is the price at which the producer's quantity loss is valued. In dollar terms, if a quantity indemnity loss is incurred then the producer receives a dollar

indemnity payment equal to the quantity indemnity loss multiplied by the elected price

#### Example (continued):

The FCIC predicted price for the insured crop is \$4 per bushel. The producer selects a 75 percent price election.

$$\text{The elected price} = (\text{Price Election}) \times (\text{FCIC Predicted Price}) = 0.75 \times \$4 \text{ per bushel} = \$3 \text{ per bushel}$$

$$\text{Dollar Indemnity Payment} = \text{Indemnity Payment in Quantity Terms} \times \text{Elected Price} = 1,000 \text{ bushels} \times \$3 \text{ per bushel} = \$3,000$$

### Premium Rates and Premium Payments

Premium rates are defined as percentages. Different premium rates are charged for each yield election. As yield elections and coverage levels increase, premium rates paid by producers also increase because a larger proportion of a producer's average crop is covered against loss. The producer's premium rate is applied to the maximum dollar indemnity payment the producer could receive under the contract, also called the amount of insurance being purchased. This maximum indemnity or amount of insurance purchased is the amount the producer receives if there is a total crop loss; that is, if the yield on the insured area is zero. The total premium payment for the contract is equal to the maximum indemnity payable under the contract multiplied by the premium rate. A producer must also pay a one time \$30 administrative fee that covers all crops insured by the producer in any given county. This administrative fee may be waived in some cases.

#### Example (continued):

The producer's APH approved average yield on a 100 acre optional unit in which the producer has a 100 percent share is 40 bushels per acre, the producer's selected yield election is 75%, the FCIC predicted price is \$4, and the producer's selected price election is 75 percent. In this case, the premium rate is 7 percent of the maximum possible indemnity payment.

If the producer has a complete loss of all crop, the actual yield is zero and therefore, in quantity terms, the maximum indemnity loss on a per acre is the trigger yield of 30 bushels. In dollar terms, the maximum indemnity payment payable on each acre is therefore the trigger yield multiplied by the elected price, equal to 30 bushels per acre x \$3 or \$90 per acre. The maximum indemnity payment or

amount of insurance the producer could receive under the MPCl contract for the optional unit is the maximum payment per acre multiplied by the number of acres; that is,

$$\text{Maximum Indemnity Payment} = \text{Trigger Yield} \times \text{Elected Price} \times \text{Insured Acres} = 30 \text{ bushels per acre} \times \$3 \text{ per bushel} \times 100 \text{ acres} = \$9,000.$$

$$\text{Producer A's Premium Payment} = \text{Premium Rate} \times \text{Maximum Indemnity Payment} = 7 \text{ percent} \times \$9,000 = \$630.$$

Note that if the producer increases the price election, then the elected price increases and the dollar maximum indemnity or amount of insurance increases. If the producer increases the price election to 100 percent, the selected elected price increases to \$4 per bushel and the maximum indemnity payment increases to \$12,000 (30 bushels per acre x \$4 per bushel x 100 acres). As a result, the premium for the optional unit increases to \$840 (7 percent x \$12,000).

In fact, the premium payment increases by the same percentage as the elected price and the amount of insurance purchased (by 25 percent in this example) because, for a fixed yield election, the premium payment is a fixed percentage of the dollar amount of insurance purchased by the producer.

Premium payments are payable at the premium billing date. However, a producer is not considered delinquent in paying the premium payment until the termination date for the insurance contract, at the which time the policy will be canceled.

### Premium Subsidies

The premium rates charged to producers for all federal crop yield and revenue insurance contracts are substantially lower than the premium rates that would be charged if producer premium payments were required to cover all expected indemnity payments for crop and revenue losses.

The dollar amounts of the premium subsidies generally do not increase in proportion to yield elections. Producers insuring against crop losses with lower

yield elections receive subsidies that make up a larger share of their total premium payments than producers insuring against crop losses with higher yield elections.

### **Shares**

Individuals may not have 100 percent ownership shares in the crop. Each individual with a share in the crop may insure their own share. Indemnity payments for losses and premium payments are pro-rated by the individual's share.

### Example (cont.)

The producer only has a 50 percent share in the crop. The producer can now only receive 50 percent of any indemnity payment based on a 100 percent share and only has to pay 50 percent of the premium payments based on a 100 percent share.

### **Prevented Planting and Replanting Indemnity Payments**

In some years, producers may need to replant a crop or maybe prevented from planting a crop. In some circumstances, producers may be indemnified for replanting costs under an MPCI contract. Unless limited by the provisions of the policy, indemnity payments will also be made when producers are prevented from planting during the planting dates prescribed in the contract because of causes covered by the insurance contract

(such as severe weather or flooding).

### **Catastrophic Risk Protection**

A producer may purchase a Catastrophic Risk Protection (CAT) endorsement. In 2002, the producer will receive indemnity payments for losses under contracts with 50 percent of the approved yield and a 60 percent price election. As with MPCI, the producer must establish an APH approved average yield. The trigger yield for losses is 50 percent of the APH approved yield and losses under the CAT endorsement are insured at 60 percent of the FCIC expected price for the crop.

The producer must pay an administrative fee of \$100 for each crop in each county which may be waived for limited resource farmers. However, producers are not required to pay any premiums for this coverage.

Producers can only purchase a CAT endorsement as long as the amount of insurance being purchased (the maximum indemnity payment) exceeds the administrative fee for the crop of \$100.

### **Sign Up Dates**

FCIC identifies unique dates by which producers must sign up for their MPCI and Catastrophic Risk Protection (CAT) contracts that are specific to each county for each crop.

### **Crops Covered by MPCI and CAT Contracts**

Crops covered by MPCI in at least some counties include: almonds, apples, beans (canning and processing) canola, citrus, citrus trees, corn, grain sorghum, soybeans, upland cotton, extra

long staple cotton, cranberries, dry beans, figs, Florida fruit trees, millet, nursery, peaches, peanuts, pears, peas, peppers, plums, popcorn, potatoes, prunes, raisins, rice, safflower, wheat, barley, oats, rye, flax, stone fruit, sugar beets, sugarcane, sunflower seeds, sweet corn (canning and freezing, and fresh market) tobacco, tomatoes (canning and processing), tomatoes (fresh market), and walnuts.

### **Reporting of Acreage and Crop Damage**

In each crop year, producers with MPCI contracts are required to submit an acreage report by unit for each insured crop. The acreage report must be signed and submitted by the producer on or before the acreage reporting date for the county for the insured crop. In the event of crop damage, producers should immediately notify their insurance provider of the damage.

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