
Managing Risk with Crop Insurance

Every year Iowa farmers face the threat of damage to their crops from drought, hail, flood, insects, and other natural disasters. The USDA Risk Management Agency (RMA) and private crop insurance venders have developed a set of insurance programs to help control crop production risks at a reasonable cost. Crop insurance coverage is not mandatory, but it does provide a financial safety net in case of severe production losses or price declines.

Crop producers in Iowa can choose from among the following general types of crop insurance:

- Yield Protection (YP)
- Revenue Protection (RP)
- Revenue Protection with Harvest Price Exclusion (RP-HPE)
- Group Risk Plan (GRP)
- Group Risk Income Protection (GRIP)
- Supplemental Coverage

Yield Protection (YP)

Yield Protection insurance protects against production losses from a wide range of natural causes. Producers can choose to insure their crops at levels ranging from 50 to 85 percent of their actual production history (APH) yield. These bushels can be insured at a price ranging from 55 percent to 100 percent of the projected price each year. The projected price level is the average new crop futures market price during the month prior to the sales closing date. Average prices during February are used for corn (December contract) and soybeans (November contract).

If the farm's actual yield is less than the guaranteed yield, the YP payment is equal to the production deficit multiplied by the price election.

Premiums increase in direct proportion to the price coverage level selected, and at an increasing rate for higher yield guarantees. The level of government subsidy of the YP premiums ranges from 100

percent at the lowest yield and price coverage level (catastrophic) to 38 percent at the maximum coverage level.

Prevented and delayed planting provisions have been very important to Iowa producers in recent years. When planting is delayed until after the final planting date set by RMA, the level for the yield guarantee on the insured crop is reduced by 1 percent per day for the next 25 days. Delayed planting provisions take effect on June 1 for corn and on June 16 for soybeans.

If no crop at all can be planted (prevented planting), the guarantee remains at 60 percent of the original level. Prevented planting provisions apply after the final planting date for the crop. Prevented planting coverage can also be raised to 65 or 70 percent of the original level, for an added premium, before the insurance sales closing date.

For more detailed information on Yield Protection crop insurance see *Ag Decision Maker File A1-52/ FM 1826 Yield Protection Crop Insurance*.

Revenue Protection (RP)

Revenue Protection is available for major crops in Iowa. The revenue guarantee is based on the APH yield and the average new crop futures market price during the month of February, just as for a Yield Protection policy. The insurable price times the APH yield times the level of coverage chosen equals the gross income guarantee. Coverage options are 50, 55, 60, 65, 70, 75, 80, and 85 percent.

If prices for the insured crop are higher by harvest time, the revenue guarantee increases accordingly, with no additional premium. The maximum increase in the insurable price is 100 percent of the February average price. The revenue guarantee cannot be lowered, however.

If the producer's actual gross revenue, calculated as the actual yield times the average October futures price, is below the insured level an indemnity payment equal to the difference is paid. Thus, indemnity payments can be triggered by various combinations of low prices and low yields. The harvest price used to calculate the actual revenue cannot be more than 100 percent higher than the February price (double).

Revenue Protection with Harvest Price Exclusion (RP-HPE)

Revenue Protection with Harvest Price Exclusion also guarantees a minimum gross income per acre for corn or soybeans, just like the standard Revenue Protection policy.

However, the revenue guarantee does not increase if prices rise between February and harvest. Premium costs will generally be lower than for RP insurance.

For more information about RP and RP-HPE see *Ag Decision Maker File A1-54/FM 1853 Revenue Protection Crop Insurance*.

Group Risk Plan (GRP)

Group Risk Plan insurance protects producers against a widespread crop failure. If the average yield for the county in which the insured crop is located falls below the trigger level chosen, the producer receives a payment, regardless of the individual farm's yield.

Policies with trigger levels of 70 to 90 percent of the long-term expected county yield can be purchased. Rather than selecting a price guarantee, the producer selects a dollar value of coverage per acre. The maximum dollar value that can be chosen is set by RMA each year. Premiums increase in direct proportion to the dollar coverage selected, and at an increasing rate for higher trigger yields.

Group Risk Income Protection (GRIP)

Gross revenue can also be insured under a group risk

policy. This plan is known as Group Risk Income Protection, or GRIP. The income guarantee level is based on the county expected yield and the average futures price during the month of February. Likewise, the actual gross revenue is based on the actual county yield and the average futures price at harvest (October for corn and soybeans). Trigger levels and indemnity payments for GRIP are calculated in a manner similar to that used for GRP, and a harvest price option is available. The maximum dollar value of coverage that can be selected for GRIP is equal to 150 percent of the expected county yield times the February futures price. The minimum is 90 percent.

The GRP and GRIP policies generally have lower premiums than comparable farm level coverage, and do not require any farm production history. This makes them attractive to producers who have no production records, or a low APH yield. Producers whose farm yields closely follow the year-to-year pattern of the county averages receive the most risk protection from GRP and GRIP. Because payments are not based on individual farm yields, however, some short-term yield risk remains.

Supplemental insurance for localized hazards such as hail is a good complement to the group policies. For more information about GRP and GRIP insurance see *Ag Decision Maker File A1-58/FM 1850 Group Risk Plan and Group Risk Income Protection*.

Supplemental Coverage

Private insurance companies have developed a variety of policies that supplement the coverage available under the standard RMA policies.

The most common supplemental policy used in Iowa is for hail insurance, which generally has a lower deductible loss than YP, but for hail damage, only. If full coverage hail insurance is purchased, coverage for hail damage can be removed from the YP policy and the premium reduced. Supplemental coverage for perils such as wind and fire are also available.

Catastrophic Insurance (CAT)

Catastrophic insurance (CAT) is a minimum coverage yield or revenue policy that protects against yield losses in excess of 50 percent. Guarantees and payments are based on 55 percent of the insurable price.

The farmer pays no premium for CAT, but there is a \$300 processing fee for each crop and farm unit insured. Limited resource farmers are exempt from paying the processing fee.

CAT offers partial protection against significant crop failures at a low cost, and is a useful option for producers with high risk-bearing ability. It allows

producers to meet the insurance requirements for eligibility in the FSA Supplemental Revenue Assistance Program (SURE).

Summary

The tables in this publication compare some of the important features of the different types of crop insurance available. Each type of policy can be customized by selecting different price and yield coverage levels, add-on features, and insurance unit designations. See your local insurance agent to get details on coverages and premiums available for your own farm.

Comparison of Crop Insurance Plans

Characteristic	Yield Protection	Revenue Protection	Revenue Protection with Harvest Price Exclusion	Group Risk Plan	Group Risk Income Protection
Insures against	Individual production risk	Individual revenue risk	Individual revenue risk	County level production risk	County level revenue risk
Yield coverage	50 to 85% of APH yield	50 to 85% of APH yield	50 to 85% of APH yield	70 to 90% of county yield	70 to 90% of county yield
Price coverage	55 to 100% of Feb. futures price	Higher of futures price in Feb. or October	Futures price in Feb.	Maximum dollar coverage set by RMA	90 to 150% of county yield x Feb. price
Results on which indemnity is based	Actual yield	Actual yield and futures price in October	Actual yield and futures price in October	County yield	Actual county yield and futures price in October
Insurable units	Basic, optional, and enterprise units	Basic, optional, enterprise and whole farm units	Basic, optional, enterprise and whole farm units	Enterprise units	Enterprise units

Comparison of Crop Insurance Plans - Example

Example: Corn, one acre	Yield Protection	Revenue Protection	Revenue Protection with Harvest Price Exclusion	Group Risk Plan	Group Risk Income Protection ¹
APH yield	160 bu.	160 bu.	160 bu.	150 bu. (county)	150 bu. (county)
Futures price during February	\$4.50	\$4.50	\$4.50	not applicable	\$4.50
Yield or revenue election	75%	75%	75%	80%	80%
Insurance guarantee/trigger	120 bu.	\$540	\$540	120 bu.	\$540
\$ coverage chosen	not applicable	not applicable	not applicable	\$700	\$700
Results: low yield, high price					
Actual yield	100 bu.	100 bu.	100 bu.	110 bu. (county)	110 bu. (county)
Harvest futures price	not applicable	\$5.80	\$5.80	not applicable	\$5.80
Harvest insurance guarantee	no change	\$696 ($\$5.80 \times 160 \times 75\%$)	no change	no change	no change (basic)
Actual crop value	not applicable	\$580 ($\5.80×100)	\$580 ($\5.80×100)	not applicable	\$638 ($\5.80×110)
Insurance payment received	\$90 ($20 \text{ bu.} \times \4.50)	\$116 ($\$696 - 580$)	\$0	\$58 ($\$700 \times ((120 - 110) / 120)$)	\$0
Results: low yield, avg. price					
Actual yield	100 bu.	100 bu.	100 bu.	110 bu. (county)	110 bu.
Harvest futures price	not applicable	\$4.00	\$4.00	not applicable	\$4.00
Harvest insurance guarantee	no change	no change	no change	no change	no change
Actual crop value	not applicable	\$400 ($\4.00×100)	\$400 ($\4.00×100)	not applicable	\$440 ($\4.00×110)
Insurance payment received	\$90 ($20 \text{ bu.} \times \4.50)	\$140 ($\$540 - 400$)	\$140 ($\$540 - 400$)	\$58 ($\$700 \times ((120 - 110) / 120)$)	\$130 ($\$700 \times ((540 - 440) / 540)$)
Results: avg. yield, low price					
Actual yield	160 bu.	160 bu.	160 bu.	150 bu. (county)	150 bu.
Harvest futures price	not applicable	\$3.00	\$3.00	not applicable	\$3.00
Harvest insurance guarantee	no change	no change	no change	no change	no change
Actual crop value	not applicable	\$480 ($\3.00×160)	\$480 ($\3.00×160)	not applicable	\$450 ($\3.00×150)
Insurance payment received	\$0	\$60 ($\$540 - 480$)	\$60 ($\$540 - 480$)	\$0	\$117 ($\$700 \times ((540 - 450) / 540)$)

¹ GRIP is also available with the harvest price option.

The examples above are for purposes of illustration only.

For specific information on coverages, premiums, and policy details see your insurance agent.

To calculate potential insurance payments see *Ag Decision Maker Decision Tools A1-48* and *A1-52*.

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