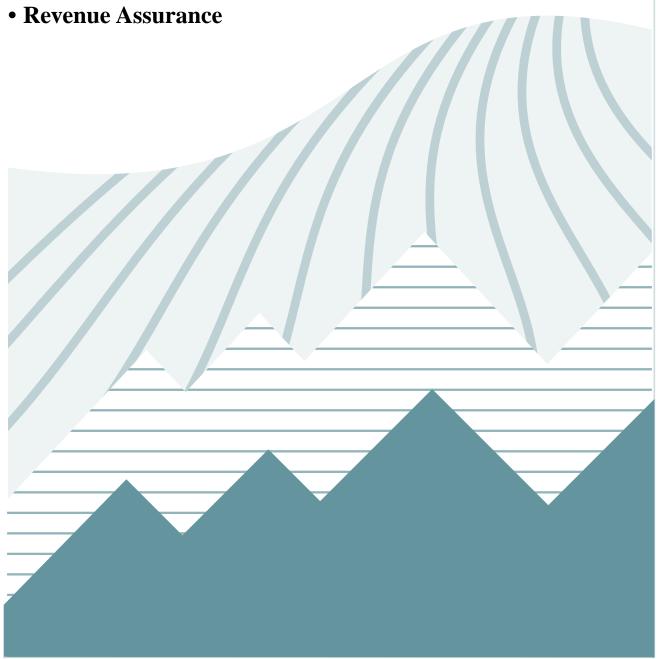
# 2000 Revenue Crop Insurance Plans

• Crop Revenue Coverage

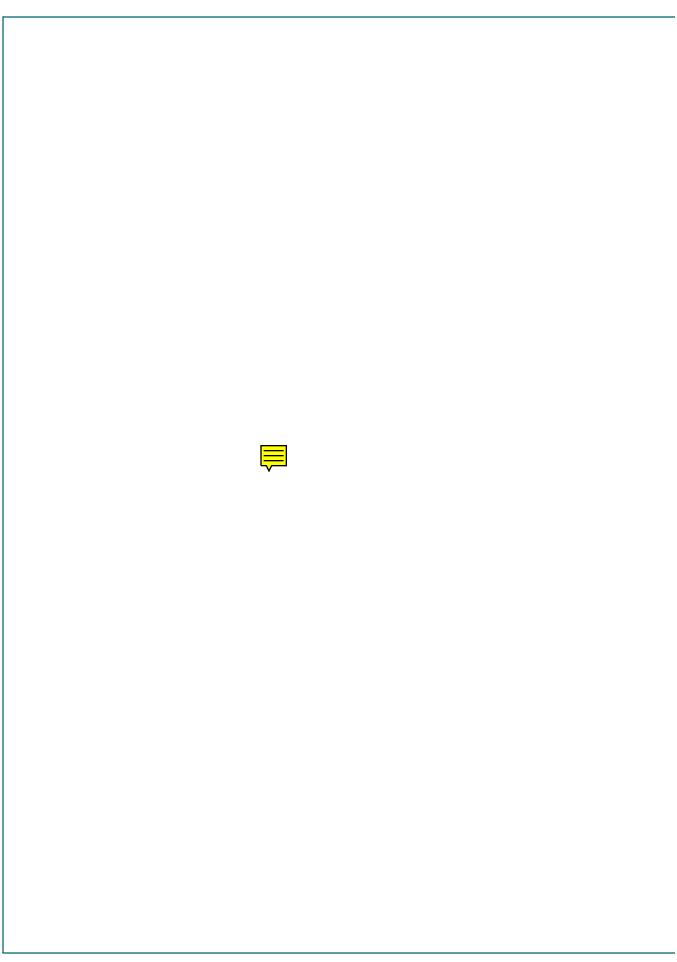






# **REVENUE CROP INSURANCE PLANS**

| CROP REVENUE COVERAGE                                 |    |
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he Federal Crop Insurance
Corporation (FCIC) offers
three pilot revenue crop
insurance programs for the
2000 crop year. These
plans respond to the directive of the Federal Crop

Insurance Reform Act of 1994 for FCIC to develop pilot crop insurance programs that provide coverage against reduced gross income as a result of a reduction in yield or price. Crop Revenue Coverage (CRC) was developed by Redland Insurance Company; the Income Protection (IP) plan was developed by FCIC; and Revenue Assurance (RA) was developed by Farm Bureau Mutual Insurance Company. All three plans are available through local insurance agents.

These three plans have many similar features. An indemnity is due when any combination of yield and price results in revenue below the revenue guarantee. All use the basic policy terms and conditions of the Actual Production History (APH) plan of multiple peril crop insurance (MPCI). APH provides the yield value used to calculate the revenue guarantee using the insured's historical yield records. APH is the documentation process to measure the yield for the insurance period.

Revenue protection for all products is provided by extending traditional APH protection to include price variability, measured by prices discovered in the commodity futures market. Price discovery occurs twice in all three plans: First, before the insurance period (Base price-CRC, Projected price-IP, Projected Harvest price-RA), to establish the guarantee and premium;

Second, at harvest time (Harvest price-CRC and IP, Fall Harvest price-RA). CRC provides increased protection when the Harvest price is above the Base price. All of these revenue insurance plans pay the insured producer an indemnity when any combination of harvested and appraised yield times the harvest price results in insurance revenue that is less than the revenue guarantee.

All revenue product contract prices are the average of the daily settlement prices for the commodity futures exchange, contract, and period listed in the insurance contract. Before insurance begins, the Base, Projected, or Projected Harvest price is calculated using the average of the daily settlement prices during the month designated in the insurance contract. Near the end of the insurance period, the Harvest or Fall Harvest price is calculated using the average of the daily settlement prices during the month designated in the insurance contract. These prices are available on the RMA website at www.rma.usda.gov shortly after the close of each discovery period.

The following information gives a general explanation of each product. A side-by-side coverage comparison table outlining the major features of CRC, IP, and RA may be found at the end of this paper.

**NOTE:** This document is for general information only. Before deciding to purchase any product, producers should consult with their insurance agent to discuss the differences between these products and the other MPCI products, and should fully understand the differences in coverage, cost, and the policy provisions of each product.

### **CROP REVENUE COVERAGE**

#### I. INTRODUCTION

Redland Insurance Company (Redland) developed and submitted the Crop Revenue Coverage (CRC) program to the Risk Management Agency (RMA). Additionally, Redland requested Federal Crop Insurance Corporation (FCIC) reinsurance, administrative expense subsidy, and premium subsidy. CRC approval was granted and is available through crop insurance agents for the 2000 crop year.

#### II. DESCRIPTION OF COVERAGE

CRC policyholders can select any county/crop combination, but must insure all acreage of the insured crop in the county in which they have an interest. Insurance is offered by units that describe acreage and locations. Basic units are determined by ownership, owner-operator, and cash rent, or by each sharing entity. Basic units may be subdivided into Optional units that are determined by location and/or production practice. Each Optional unit must be supported by the producer's historical records of planted acreage and harvested production. The revenue guarantee applies individually to each Basic or Optional unit. Producers may elect to create an Enterprise unit from several Basic or Optional units and receive a premium discount.

The base premium applies to a Basic unit. Premium discounts are available when an insured elects to combine all Optional units into a Basic unit or all Basic units and Optional units into an Enterprise unit (all acreage of the insured crop in the county in which the insured has an interest).

Producers choose the amount of revenue protection that meets their risk management needs by selecting a coverage level between 50 and 75 percent (85 percent coverage level is available for selected crops and counties). The CRC Final Guarantee is calculated by multiplying the unit's APH yield times the insured's chosen coverage level times the higher of 1) the Base price, or 2) the Harvest price. CRC policyholders are

due an indemnity when the harvested and appraised yield times the Harvest price is less than the Final Guarantee. CRC coverage can increase when the Harvest price is greater than the Base price, but the premium does not increase.

#### III. CRC PRICES AND INDEMNITY PAYMENTS

CRC uses two prices to measure price fluctuation. Base price establishes the revenue guarantee. Harvest price establishes the crop value to count against the revenue guarantee, and is used to recompute the revenue guarantee when it is higher than the Base price. The CRC Base and Harvest prices are the commodity exchange's average daily settlement price for the insured crop futures contract or index, and period specified in the Commodity Exchange Endorsement. Any indemnity payments will be paid after the Harvest price and actual production are determined.

The APH procedure provides an established process for setting yields, underwriting, and yield measurement. Price fluctuation is measured by the difference in the average commodity price before insurance begins, "Base price," and the price at harvest time, "Harvest price." The price fluctuation between the Harvest and Base prices is limited to \$1.50 for corn, \$0.70 for cotton, \$1.50 for grain sorghum, \$0.05 for rice, \$3.00 for soybeans, and \$2.00 for wheat.

#### IV. COVERED AND EXCLUDED EVENTS

The CRC policy provides insurance protection for unavoidable loss of revenue due to insured causes of loss, including market prices. Exclusions are the same as the MPCI policy.

#### V. PRODUCER SUBSIDY

Producer premium subsidy (the portion of the premium paid by the Government) is paid only on the yield risk portion of the CRC coverage. This subsidy amount is the same dollar amount as the MPCI policy.

### VI. MARKET AVAILABILITY

For the 2000 crop year, CRC is available in all counties where the APH program is available. Following is a list of CRC crops by State:

| Alabama       | corn, cotton, grain sorghum, soybeans, and wheat       | Montana        | corn and wheat   |
|---------------|--|----------------|--|
| Arizona       | corn, cotton, and wheat                                | Nebraska       | corn, grain sorghum, soybeans, and wheat               |
| Arkansas      | corn, cotton, grain sorghum,                           | New Hampshire  | corn   |
|               | rice, soybeans, and wheat                              | New Jersey     | corn and soybeans                                      |
| California    | corn, cotton, grain sorghum, rice, and wheat           | New Mexico     | corn, cotton, grain sorghum, and wheat                 |
| Colorado      | corn, grain sorghum, and wheat                         | New York       | corn and soybeans                                      |
| Connecticut   | corn   | North Carolina | corn, cotton, grain sorghum,                           |
| Delaware      | corn and soybeans                                      |                | soybeans, and wheat                                    |
| Florida       | corn, cotton, grain sorghum, rice, and soybeans        | North Dakota   | corn, grain sorghum, soybeans, and wheat               |
| Georgia       | corn, cotton, grain sorghum, soybeans, and wheat       | Ohio           | corn, grain sorghum, soybeans, and wheat               |
| Idaho         | corn and wheat   | Oklahoma       | corn, cotton, grain sorghum,                           |
| Illinois      | corn, grain sorghum, soybeans,                         | _              | rice, soybeans, and wheat                              |
|               | and wheat  | Oregon         | corn and wheat   |
| Indiana       | corn, grain sorghum, soybeans, and wheat               | Pennsylvania   | corn and soybeans                                      |
| Iowa          |  | Rhode Island   | corn   |
|               | corn, grain sorghum, soybeans, and wheat               | South Carolina | corn, cotton, grain sorghum, soybeans, and wheat       |
| Kansas        | corn, cotton, grain sorghum, soybeans, and wheat       | South Dakota   | corn, grain sorghum, soybeans, and wheat               |
| Kentucky      | corn, grain sorghum, soybeans, and wheat               | Tennessee      | corn, cotton, grain sorghum, rice, soybeans, and wheat |
| Louisiana     | corn, cotton, grain sorghum, rice, soybeans, and wheat | Texas          | corn, cotton, grain sorghum, rice, soybeans, and wheat |
| Maine         | corn   | Utah           | corn and wheat   |
| Maryland      | corn, grain sorghum, and                               | Vermont        | corn   |
|               | soybeans   | Virginia       | corn, cotton, grain sorghum,                           |
| Massachusetts | corn   | · ·            | soybeans, and wheat                                    |
| Michigan      | corn, grain sorghum, soybeans, and wheat               | Washington     | corn and wheat   |
| Minnesota     | corn, grain sorghum, soybeans,                         | West Virginia  | corn and soybeans                                      |
| 1viiiiiesota  | and wheat  | Wisconsin      | corn, grain sorghum, soybeans,                         |
| Mississippi   | corn, cotton, grain sorghum, rice, soybeans, and wheat | Wyoming        | and wheat corn and wheat                               |
| Missouri      | corn, cotton, grain sorghum, rice, soybeans, and wheat |                |  |

# **CRC Sources and Dates for Price Determinations**

| Crop/Location   | Exchange and Futures Contract   | Base Price Period                                 | Harvest Price Period    |
|---|---|---|-------------------------|
| Corn counties with a cancellation date prior to 3/15          | CBOT September corn   | December prior year                               | August                  |
| Corn counties with a 3/15 cancellation date                   | CBOT December corn  | February  | November                |
| Cotton counties with a 1/15 cancellation date                 | NYCE October cotton   | December prior year                               | September               |
| Cotton counties with a 2/28 or 3/15 cancellation date         | NYCE December cotton  | January 15 to<br>February 14                      | November                |
| Grain Sorghum counties with a cancellation date prior to 3/15 | 95% of CBOT September corn  | December pre-harvest year                         | August                  |
| Grain Sorghum counties with a 3/15 cancellation date          | 95% of CBOT December corn   | February  | November                |
| Rice counties with a 1/15 cancellation date                   | CBOT September rough rice   | December pre-<br>harvest year                     | August                  |
| Rice counties with a 2/15 or 2/28 cancellation date           | CBOT November rough rice  | January   | October                 |
| Soybean counties with a cancellation date prior to 3/15       | CBOT September soybeans   | December  | August                  |
| Soybean counties with a 3/15 cancellation date                | CBOT November soybeans  | February  | October                 |
| Winter Wheat - IL, IN, MI, OH, WI                             | Base - CBOT July soft red<br>winter wheat<br>Harvest - CBOT September<br>soft red winter wheat                  | August 15 to<br>September 14 pre-<br>harvest year | July 15 to<br>August 14 |
| Winter Wheat - AL, GA, KY,<br>LA, MS, NC, SC, TN, VA          | CBOT July soft red winter wheat   | August 15 to<br>September 14 pre-<br>harvest year | June                    |
| Winter Wheat - IA, MT, NE, SD, WY                             | Base price - KCBOT July<br>hard red winter wheat<br>Harvest price - KCBOT<br>September hard red winter<br>wheat | August 15 to<br>September 14 pre-<br>harvest year | July 15 to<br>August 14 |

| Crop/Location  | <b>Exchange and Futures Contract</b>   | Base Price Period                                  | Harvest Price Period   |
|--|--|--|------------------------|
| Winter Wheat - AZ, AR, CO, KS, MO, NM, OK, TX                  | Base price - KCBOT July<br>hard red winter wheat<br>Harvest price - KCBOT July<br>hard red winter wheat  | August 15 to<br>September 14 pre-<br>harvest year  | June                   |
| Spring Wheat counties with a 3/15 cancellation date            | MGE September hard red spring wheat  | February   | August                 |
| Spring Wheat counties with a 9/30 cancellation date            | Base price - KCBOT July<br>hard red winter wheat<br>Harvest price - MGE<br>September hard red spring<br>wheat  | August 15 to<br>September 14 pre-<br>harvest year  | August                 |
| Wheat - CA, ID, OR, UT, WA                                     | Base price - CBOT<br>September soft red winter<br>wheat plus CBOT-PGE basis<br>adjustment<br>Harvest price - PGE soft<br>white wheat                                       | August 15 to<br>September 14 pre-<br>harvest year  | August                 |
| Durum Wheat counties with a 3/15 cancellation date - ND        | MGE September durum wheat  | February   | August                 |
| Durum Wheat counties with a 10/31 cancellation date - AZ, CA   | Base price - CBOT September soft red winter wheat plus MGE August top milling durum-CBOT September soft red winter wheat adjustment  Harvest price - MGE top milling durum | September 15 to<br>October 14 pre-<br>harvest year | August                 |
| CBOT - Chicago Board of Trade<br>PGE - Portland Grain Exchange | KCBOT - Kansas City Board of NYCE - New York Cotton Exch   |  | eapolis Grain Exchange |

### CRC Corn Loss Calculations for 1 Acre

#### **EXAMPLE 1: Harvest Price more than Base Price - Without a Production Loss**

Approved APH yield = 150 bushels per acre Coverage Level = 75% Share = 100%

Base Price = \$2.40 per bushel Harvest Price = \$3.30 per bushel Production to count = 112.5 bushels per acre

Crop Value = Production to Count x Harvest Price = \$371

Revenue Guarantee = APH x Coverage Level x (higher of Base Price or Harvest Price) x Share = \$371

Revenue Guarantee - Crop Value = CRC Indemnity

\$371 - \$371 = \$0

#### **EXAMPLE 2: Harvest Price more than Base Price - With a Production Loss**

Approved APH yield = 150 bushels per acre Coverage Level = 75% Share = 100%

Base price = \$2.40 per bushel Harvest Price = \$3.30 per bushel Production to count = 90 bushels per acre

Crop Value = Production to Count x Harvest Price = \$297

Revenue Guarantee = APH x Coverage Level x (higher of Base Price or Harvest Price) x Share = \$371

Revenue Guarantee - Crop Value = CRC Indemnity

\$371 - \$297 = \$74

#### **EXAMPLE 3: Harvest Price less than Base Price - Without a Production Loss**

Approved APH yield = 150 bushels per acre Coverage Level = 75% Share = 100%

Base Price = \$3.30 per bushel Harvest Price = \$2.40 per bushel Production to count = 112.5 bushels per acre

Crop Value =Production to Count x Harvest Price = \$270

Revenue Guarantee = APH x Coverage Level x (higher of Base Price or Harvest Price) x Share = \$371

Revenue Guarantee - Crop Value = CRC Indemnity

\$371 - \$270 = \$101

#### **EXAMPLE 4: Harvest Price less than Base Price - With a Production Loss**

Approved APH yield = 150 bushels per acre Coverage Level = 75% Share = 100%

Base Price = \$3.30 per bushel Harvest Price = \$2.40 per bushel Production to count = 90 bushels per acre

Crop Value = Production to Count x Harvest Market Price = \$216

Revenue Guarantee = APH x Coverage Level x (higher of Base Price or Harvest Price) x Share = \$371

Revenue Guarantee - Crop Value = CRC Indemnity

\$371 - \$216 = \$155

### **INCOME PROTECTION**

#### I. INTRODUCTION

Section 508(h)(6) of the Federal Crop Insurance Act (Act) directs the Federal Crop Insurance Corporation (FCIC) to offer a pilot cost of production insurance plan. The Act provides the following pilot parameters: 1) establish the pilot program beginning with the 1996 crop year; 2) offer the pilot program in enough counties to provide a comprehensive evaluation of the feasibility, effectiveness, and demand among producers; and 3) pay an indemnity when the gross income is less than the guaranteed income, as a result of a reduction in price or yield resulting from an insured cause.

The actuarial development for Income Protection (IP) was conducted collaboratively by researchers at Montana State University, the Economic Research Service, and FCIC. The rating methodology reflects historical yield variation and variation in gross income due to yield and price movements during the crop year.

#### II. DESCRIPTION OF COVERAGE

The Actual Production History (APH) procedure provides general rules for setting yields, underwriting, and yield measurement. Price fluctuation is measured by the difference in the average commodity price before insurance begins, "Projected price," and the price at harvest time, "Harvest price."

Producers choose the amount of revenue protection that meets their risk management needs by selecting either catastrophic coverage (CAT) or a coverage level between 50 and 75 percent (85 percent coverage is available for selected crops and counties). The IP revenue guarantee is the insured's selected coverage level times the APH yield times the Projected price. IP policyholders are indemnified when the harvested and appraised yield times the Harvest price is less than the guarantee.

Producers may elect the CAT level of protection and pay only the \$60 administrative fee. No premium is due for CAT. For the 2000 crop year, CAT protection equals 27.5 percent of

your approved yield times 100 percent of the Projected price.

IP coverage is provided only for an Enterprise unit that is all insurable acreage of the insured crop in the county in which the insured has an interest. The Enterprise unit APH yield is calculated using most APH rules.

For the 2000 crop year, the Indexed IP (IIP) pilot is available for selected crops and counties. IIP is identical to IP except for a modification to the APH approved yield calculation. This pilot program makes a higher yield guarantee available in areas that have experienced unusually low yields in recent years and the traditional APH approved yields may not reflect the insured crop's expected yield. The indexing modification uses county data to minimize the effect of unusually low yields. The IIP approved APH yield is calculated by subtracting the producer's average reported yields at the enterprise unit level from the county average yields for the same years, then subtracting that difference from the county's expected yield for the current crop year.

#### III. IP PRICES AND INDEMNITY PAYMENTS

IP uses two prices to measure price fluctuation during the insurance period. Projected price establishes the revenue guarantee. Harvest price establishes the crop value to count against the revenue guarantee. IP prices are 100 percent (with the exceptions of barley and grain sorghum) of the average daily settlement price for the insured crop, futures contract or index, and period specified in the Crop Provisions or the Special Provisions. Indemnity payments are paid after the harvested and appraised production and Harvest price are determined.

#### IV. COVERED AND EXCLUDED EVENTS

The IP policy provides insurance protection for unavoidable loss of revenue due to insured causes of loss, including low market prices. Exclusions are the same as for the MPCI policy.

# V. Market Availability

For the 2000 crop year, IP is available in the following crop, State, and county combinations.

| Barley<br>85 Percent<br>Coverage Level     | Idaho<br>Minnesota   | All counties EXCEPT Shoshone All counties EXCEPT Anoka, Blue Earth, Brown, Cook, Faribault, Freeborn, Jackson, Lake, Martin, Mower, Nicollet, Nobles, Ramsey, Waseca, and Watonwan  |
|--|----------------------|---|
|  | Montana              | All counties EXCEPT Lincoln   |
|  | North Dakota         | All counties  |
|  | Oregon               | All counties EXCEPT Clatsop, Coos, Curry, Hood River, Lincoln, and Tillamook  |
|  | South Dakota         | Beadle, Brookings, Brown, Campbell, Clark, Codington, Corson, Day, Deuel, Edmunds, Faulk, Grant, Hamlin, Kingsbury, Lake, Lincoln, McCook, McPherson, Marshall, Miner, Minnehaha, Moody, Roberts, Spink, Turner, Union, Walworth, and Yankton |
|  | Washington           | All counties EXCEPT Jefferson   |
| Corn                                       | Illinois             | All counties  |
|  | Indiana              | All counties  |
|  | Iowa                 | Adair, Audubon, Cass, Dallas, Guthrie, and Shelby   |
| Corn<br>Indexed Income<br>Protection (IIP) | Maryland<br>New York | All counties All counties EXCEPT Bronx, Hamilton, Kings, Nassau, New York, Putnam, Queens, Richmond, Rockland, and  |
|  |                      | Westchester   |
|  | North Carolina       | All counties  |
|  | Pennsylvania         |   |
|  | Femisyivama          | All counties EXCEPT Philadelphia  |
| Cotton                                     | Alabama<br>Georgia   | All counties EXCEPT Philadelphia  Autauga, Lawrence, Limestone, and Madison Brooks, Colquitt, Dooly, and Worth  |
| Cotton  Grain Sorghum                      | Alabama              | Autauga, Lawrence, Limestone, and Madison   |

| Soybeans                                     | Arkansas  Illinois Indiana Iowa | Arkansas, Ashley, Chicot, Clay, Conway, Craighead, Crawford, Crittenden, Cross, Desha, Drew, Faulkner, Franklin, Greene, Hempstead, Independence, Jackson, Jefferson, Johnson, Lafayette, Lawrence, Lee, Lincoln, Little River, Logan, Lonoke, Miller, Mississippi, Monroe, Perry, Phillips, Poinsett, Pope, Prairie, Pulaski, Randolph, Sebastian, Sevier, St. Francis, White, Woodruff, and Yell All counties All counties Adair, Audubon, Cass, Dallas, Guthrie, and Shelby |
|--|---------------------------------|--|
| Soybeans                                     | Maryland                        | All counties EXCEPT Garrett  |
| Indexed Income<br>Protection (IIP)           | North Carolina                  | All counties except Alleghany, Ashe, Clay, Graham,<br>Haywood, Jackson, Macon, Madison, Mitchell, Swain, and<br>Yancey   |
| Spring Wheat<br>85 Percent<br>Coverage Level | Minnesota                       | All counties EXCEPT Carlton, Cook, Itasca, Lake, and Ramsey  |
| Coverage Level                               | Montana                         | Daniels and Sheridan   |
|  | North Dakota                    | All counties   |
|  | South Dakota                    | Beadle, Brookings, Brown, Campbell, Clark, Clay,<br>Codington, Corson, Day, Deuel, Edmunds, Faulk, Grant,<br>Hamlin, Kingsbury, Lake, Lincoln, McCook, McPherson,<br>Marshall, Miner, Minnehaha, Moody, Roberts, Spink,<br>Turner, Union, Walworth, and Yankton  |
| Winter Wheat                                 | Idaho                           | Idaho, Latah, Lewis, and Nez Perce   |
|  | Kansas                          | Harper, Harvey, Jewell, Kingman, Mitchell, Osborne, Phillips, Reno, Rooks, Sedgwick, Smith, and Sumner   |
|  | Montana                         | All counties EXCEPT Daniels, Lincoln, Sheridan, Silver<br>Bow, and Yellowstone National Park   |
|  | Oregon                          | All counties EXCEPT Clatsop, Coos, Curry, Hood River, Lincoln, and Tillamook   |
|  | South Dakota                    | Aurora, Bennett, Bon Homme, Brule, Buffalo, Butte,<br>Charles Mix, Custer, Davison, Dewey, Douglas, Fall River,<br>Gregory, Haakon, Hand, Hanson, Harding, Hughes,<br>Hutchinson, Hyde, Jackson, Jerauld, Jones, Lawrence,<br>Lyman, Meade, Mellette, Pennington, Perkins, Potter,<br>Sanborn, Shannon, Stanley, Sully, Todd, Tripp, and<br>Ziebach  |
|  | Washington                      | All counties EXCEPT Clallam, Grays Harbor, Jefferson, Kitsap, Mason, Pacific, Pierce, Skamania, Thurston, and Wahkiakum  |

# **IP Sources and Dates for Price Determinations**

| Crop/State or County                                    | Exchange and Futures Contract                                  | Projected Price<br>Discovery Period | Harvest Price<br>Discovery Period |
|---|--|-------------------------------------|-----------------------------------|
| Barley-MN, MT, ND, and SD                               | 85% of CBOT September corn                                     | February                            | August                            |
| Barley-ID, OR, and WA                                   | 85% of CBOT September corn                                     | February                            | July 15 through<br>August 14      |
| Corn-NC counties with a 2/28 sales closing date         | CBOT December  | January 15 through<br>February 14   | November                          |
| Corn-counties with a 3/15 sales closing date            | CBOT December  | February                            | November                          |
| Cotton  | NYCE December  | January 15 through<br>February 14   | November                          |
| Grain Sorghum   | 90% of CBOT December corn                                      | February                            | November                          |
| Soybeans-AR, NC counties with a 2/28 sales closing date | CBOT November  | January 15 through<br>February 14   | October                           |
| Soybeans-counties with a 3/15 sales closing date        | CBOT November  | February                            | October                           |
| Winter Wheat-KS   | CBOT July  | August 15 through<br>September 14   | June                              |
| Winter Wheat-ID, OR, and WA                             | Projected price-CBOT<br>September plus the "Portland<br>basis" | August 15 through<br>September 14   | August                            |
|   | Harvested price-PGE  |                                     |                                   |
| Winter Wheat-MT and SD*                                 | CBOT July  | August 15 through<br>September 14   | June                              |
| Wheat (Spring) in MN, MT**, ND, and SD**                | CBOT September   | February                            | August                            |

CBOT - Chicago Board of Trade

NYCE - New York Cotton Exchange

PGE - Portland Grain Exchange

<sup>\*</sup> The non-Spring-only counties of MT include all MT counties except Daniels, Sheridan, and Valley. The non-Spring-only counties of SD include Aurora, Bennett, Bon Homme, Brule, Buffalo, Butte, Charles Mix, Custer, Davison, Dewey, Douglas, Fall River, Gregory, Haakon, Hand, Hanson, Harding, Hughes, Hutchinson, Hyde, Jackson, Jerauld, Jones, Lawrence, Lyman, Meade, Mellette, Pennington, Perkins, Potter, Sanborn, Shannon, Stanley, Sully, Todd, Tripp, and Ziebach.

<sup>\*\*</sup> The Spring-only counties of MT include Daniels and Sheridan. The Spring-only counties of SD include Beadle, Brookings, Brown, Campbell, Clark, Clay, Codington, Corson, Day, Deuel, Edmunds, Faulk, Grant, Hamlin, Kingsbury, Lake, Lincoln, McCook, McPherson, Marshall, Miner, Minnehaha, Moody, Roberts, Spink, Turner, Union, Walworth, and Yankton.

# **Comparison of APH and IP Loss Calculations for 1 Acre**

**ASSUME:** 

APH yield: 118 bushels Projected Price: \$2.45 Coverage: 75%

**Actual Production History (APH)** 

**Income Protection (IP)** 

Production guarantee:

118 bushels x 75% coverage level = 88.5 bu.

Amount of Protection:

118 bushels x  $$2.45 \times 75\%$  coverage level = \$216.83

Liability:

88.5 bu x \$2.45 indemnity price = \$216.83

Premium: \$12.68/acre Premium: \$9.60/acre

Result: 50 bushels yield, \$3.20 price (low yield, high price)

Harvest: 50 bushels x \$3.20 = \$160.00 Harvest: 50 bushels x \$3.20 = \$160.00

Insurance: 38.5 bushels x \$2.45 = \$94.33 Insurance: \$216.83 - \$160 = \$56.83

Farmer revenue: \$245.33 Farmer revenue: \$216.83

Result: 100 bushels yield, \$1.80 price (high yield, low price)

Harvest: 100 bushels x \$1.80 = \$180.00 Harvest: 100 bushels x \$1.80 = \$180.00

Insurance: No payment \$0.00 Insurance: \$216.83 - \$180 = \$36.83

Farmer revenue: \$180.00 Farmer revenue: \$216.83

#### VI. RATING AND PRODUCER SUBSIDY

The rating methodology for IP considers individual historical yield data, the relationship of the individual yields to county average yields for each year, and the correlation of national prices and county yields. The actuarial development for IP was conducted by researchers at Montana State University, the Economic Research Service, and FCIC.

Insureds selecting the 65 percent coverage level or greater will receive a premium subsidy equal to 75 percent of the premium for the 50 percent coverage IP. Insureds selecting less than the 65 percent coverage level will receive a subsidy equal to 55 percent of the premium for 50 percent coverage IP.

### **REVENUE ASSURANCE**

#### I. INTRODUCTION

The Farm Bureau Mutual Insurance Company (Iowa Farm Bureau) developed Revenue Assurance (RA), and it was approved by the FCIC as a pilot project for the 1997 crop year. For the 2000 crop year, RA receives Federal Crop Insurance Corporation (FCIC) reinsurance, administrative expense subsidy, and premium subsidy. RA is available through crop insurance agents and is offered for selected crops in Idaho, Illinois, Indiana, Iowa, Minnesota, North Dakota, and South Dakota.

#### II. DESCRIPTION OF COVERAGE

The Actual Production History (APH) procedure provides general rules for setting yields, underwriting, and yield measurement. Price fluctuation is measured by the difference in the average commodity price before insurance begins, "Projected Harvest price," and the price at harvest time, "Fall Harvest price."

The RA unit revenue guarantee is the insured's selected coverage level times the APH yield for the unit times the Projected Harvest price. RA policyholders are due indemnities when the harvested and appraised yield times the Harvest price is less than the unit revenue guarantee.

RA policyholders must insure all the acreage of the insured crop in the county in which they have an interest. However, they may select from several unit organizations: basic, optional, enterprise, or whole farm. Basic units are determined by ownership, owner-operator, and cash rent, or each sharing entity. Basic units can be subdivided into Optional units that are determined by location and/or production practice. Each proposed Optional unit must be supported by historical records of planted acreage and yield. RA provides a premium discount if the insured elects an Enterprise unit, which is all the acreage of the insured crop in the county in which the insured has a share. An additional premium discount is available when the insured elects the Whole farm unit, which is all the acreage in the county in which the insured has a share.

Replant payments will be made at the time of loss and will be based on the Projected Harvest price. Indemnity payments for producers choosing the Whole farm option will be made if the revenue at harvest from all the insurable acreage of the RA insurable crops in the county in which the insured has a share is less than the Whole farm revenue guarantee.

#### III. RA PRICES AND INDEMNITY PAYMENTS

RA uses two prices (Projected Harvest Price and Fall Harvest price) to measure price fluctuation. The Projected Harvest price establishes the revenue guarantee and is used to calculate the premium. The Fall Harvest price establishes the crop value to count against the revenue guarantee. When the Harvest Price Option (HPO) is elected, the Fall Harvest price is used to recompute the revenue guarantee when the Fall Harvest Price Option is higher than the Projected Harvest price. RA prices are 100 percent of the average daily settlement price for the insured crop futures contract and period specified in the Crop Provisions. Indemnity payments are calculated when the harvested and appraised production and Harvest price are determined.

#### IV. COVERED AND EXCLUDED EVENTS

The RA policy provides insurance protection for unavoidable loss of revenue due to insured causes of loss, including low futures market prices.

#### V. MARKET AVAILABILITY

For the 2000 crop year, RA is available in all counties where the APH program is available. Following is a list of RA crops by State:

Idaho barley (feed), canola/rape-

seed, spring wheat

Illinois corn, soybeans Indiana corn, soybeans Iowa corn, soybeans

Minnesota corn, soybeans, spring wheat North Dakota barley (feed), canola/rape-

seed, corn, soybeans, sunflowers, spring wheat

South Dakota corn, soybeans, spring wheat

#### VI. RATING AND PRODUCER SUBSIDY

RA premium rates are calculated by a rating model incorporating the variability and correlation of yield and price. Producer premiums are subsidized. The subsidy cannot exceed the comparable APH premium subsidy.

# **RA Sources and Dates for Price Determinations**

| Crop                | <b>Exchange and Futures Contract</b>           | Projected Harvest Price<br>Discovery Period | Fall Harvest Price<br>Discovery Period |
|---------------------|--|---|--|
| Barley (feed)       | WGE October feed barley (times .02177)         | February                                    | September                              |
| Corn                | CBOT December corn                             | February                                    | November                               |
| Canola/<br>Rapeseed | WGE November canola (divided by 2,205)         | February                                    | September                              |
| Soybeans            | CBOT November soybeans                         | February                                    | October                                |
| Sunflowers          | CBOT October soybeans (divided by 2 minus 1.0) | February                                    | September                              |
| Wheat (Spring)      | MGE September wheat                            | February                                    | August                                 |

CBOT - Chicago Board of Trade

MGE - Minneapolis Grain Exchange

WGE - Winnipeg Grain Exchange

# **Crop Year 2000 Side-by-Side Coverage Comparison**

| Feature                                | Crop Revenue Coverage (CRC)   | Income Protection (IP)   | Revenue Assurance (RA)   |
|--|---|--|--|
| Unit organization                      | Basic, optional, or enterprise units  | Enterprise unit (all acreage of<br>the insured crop in the county<br>in which the insured has an<br>interest)  | Basic, optional, enterprise, or<br>whole farm (all RA insurable<br>crops in the county in which<br>the insured has an interest)                          |
| Basis for insurance guarantee          | Higher of: 1) APH yield x Base price; or 2) APH yield x Harvest price  Insurance guarantee increases when the Harvest Price exceeds the Base Price                | APH yield x Projected price  | APH yield x Projected Harvest<br>Price  Harvest Price Option increases<br>the guarantee when the<br>Harvest Price exceeds the<br>Projected Harvest Price |
| Maximum protection unit price increase | corn \$1.50<br>cotton \$0.70<br>grain sorghum \$1.50<br>rice \$0.05<br>soybeans \$3.00<br>wheat \$2.00  | Not applicable   | Not applicable   |
| Reference commodity price              | For corn, cotton, rice, soybeans, and wheat, 100% of selected commodity contract traded on a commodity futures exchange  Grain sorghum is 95% of the corn futures | For corn, cotton, soybeans, and wheat, 100% of selected commodity contract traded on a commodity futures exchange  Grain sorghum is 90% of the corn futures  Barley is 85% of the corn futures | 100% of selected commodity contract traded on a commodity futures exchange   |
| Eligibility for high-<br>risk land     | High-risk land is eligible for coverage if elected by insured   | High-risk land is not eligible for coverage  | High-risk land is eligible for coverage if elected by insured  |
| Coverage levels                        | 50-75% in 5% increments, except 50-85% where 85% APH is available  CAT is not available   | 50-75 %, except 50-85% where 85% APH is available CAT is 27.5%   | 65-75%, except 65-85% for whole farm and enterprise units  CAT is not available  |
| Hail and fire exclusion                | Not available   | Not available  | Not available  |
| Insured crops                          | Corn, cotton, grain sorghum, rice, soybeans, and wheat  | Barley, corn, cotton, grain sorghum, soybeans, and wheat   | Corn, feed barley, canola/rape-<br>seed, soybeans, sunflowers,<br>and spring wheat   |
| Rating                                 | APH base rate plus low price<br>factor plus high price factor<br>plus CRC factor  | New rating model incorporating yield and price variability   | New rating model incorporat-<br>ing yield and price variability<br>and yield and price correlation   |

To obtain current information on historical prices on revenue products see www.rma.usda.gov



## **United States Department of Agriculture**

Risk Management Agency

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