Overview of Crop Insurance

History and Evolution of Crop Insurance

1930s to the 1980 Federal Crop Insurance Act

Federal crop insurance was first authorized by Congress in the 1930s in conjunction with other initiatives to help agriculture recover from the impact of the Great Depression and the Dust Bowl. In 1938, the Federal Crop Insurance Corporation (FCIC) was created to administer crop insurance. Federal crop insurance was generally an "experiment", providing limited coverage in limited areas for only major crops, like corn and wheat, until the Federal Crop Insurance Act of 1980. This Act expanded the crop insurance program to include many more crops and regions. It also encouraged expansion to replace the free disaster coverage offered under Farm Bills in the 1960s and 1970s. To grow participation in the program, the 1980 Farm Bill subsidized 30% of the crop insurance premium owed by the farmer.[1]

Ad Hoc Disaster Assistance

Despite the premium subsidy offered, farmers did not participate in crop insurance in significant numbers until the 1990s. In 1988, a major drought resulted in an ad hoc disaster assistance bill to keep farmers in business. A second disaster bill followed in 1989, a third in 1992 that covered a three-year span, and a fourth to counteract a very wet, cool growing season in 1993. This quick succession of disaster assistance led Congress to enact the Federal Crop Insurance Reform Act of 1994 ("the Act").

The 1994 Federal Crop Insurance Reform Act and creation of the Risk Management Agency

The Act "made participation in the crop insurance program mandatory for farmers to be eligible for deficiency payments under price support programs, certain loans, and other benefits."[2] In 1996, the Risk Management Agency (RMA) was created to administer the federal crop insurance program under the USDA. Through the Act's new requirements and geographic and crop expansion, crop insurance participation jumped to 180 million acres of farmland insured by 1998, three times the number of acres insured in 1988.[3]

The Agricultural Risk Protection Act

Congress passed the Agricultural Risk Protection Act in May 2000. This law made it "easier for farmers to access different types of insurance products including revenue insurance and protection based on historical yields." It also increased premium subsidy levels to farmers "to encourage greater participation and included provisions designed to reduce fraud, waste and abuse."[4]

Crop Insurance and the Farm Bill

Crop Insurance is legislated under Title XII of the Food, Conservation, and Energy Act of 2008 (H.R. 6124) (Farm Bill) and will be a separate title under the new Farm Bill once such legislation is passed. For Crop Insurance, the Farm Bill amends the Federal Crop Insurance Act (the Act) in Section 7 of the U.S. Code (U.S.C.).[5]

Such amendments may result in new programs that must be explored or implemented by the RMA; specific policy language and procedural requirements; dollar amounts available to the RMA for administration of various insurance programs; premium subsidy percent regulations; waste, fraud, and abuse rules; restrictions on certain actions, such as any form of rebating; setting administrative fees per crop insured; instructing how price elections are arrived at; and much more. Essentially, any portion of the Act can be revised through the Farm Bill.

When a new Farm Bill is signed into law, all language included is recorded in the Federal Register and the changes affecting crop insurance are mandatory for the RMA to implement.

Changes that are within the scope of the Act and the powers granted to the FCIC and RMA are allowed without needing a new Farm Bill. Policies that are “permanent” (not a pilot or limited offering) must go through a review and comment period and be published in the Federal Register; changes to such things as procedures, rates, prices, and data collection guidelines can be made by the RMA without a comment period and without public input, although they do generally seek input from all insurance providers.

The Current Crop Insurance Program

There are currently two types of crop insurance available to United States farmers and ranchers: Federal crop insurance programs, generally discussed as multiple-peril crop insurance (MPCI), and crop insurance products that are developed and underwritten solely by private insurance companies (private products) and are not subsidized by any entity. The most common private product is crop-hail coverage.[6]

Why Farmers Buy

With rapidly increasing expenses, including land purchase or rent; loan fees (which require collateral, often crop insurance); seed costs; labor expenses; equipment and fuel; and chemical or other soil or crop treatments,[7] it is apparent why farmers purchase crop insurance to protect their investments and remain in business.

Farmers often purchase both federal and private crop insurance policies as part of their operational risk management: private policies allow “spot” coverage, often on a per-acre basis, for a specific peril that is either inadequately covered or not covered under an MPCI policy; MPCI policies provide broad coverage with higher values, revenue and yield protection options, and subsidized premium. The premium is subsidized by government (taxpayer) funds but is not a direct payment to farmers; it is a reduction in the calculated premium amount the farmer owes for the policy he or she purchased.

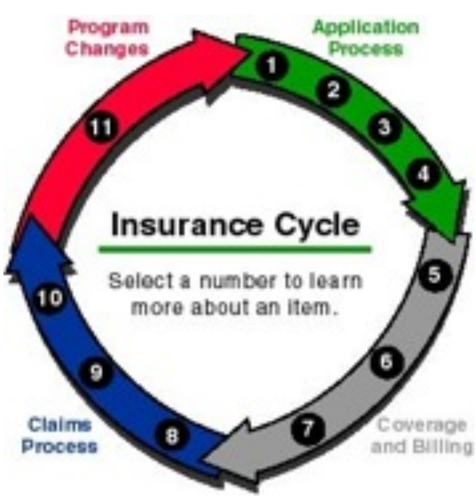
How It Works

Federal crop insurance offers separate, tailored policies for more than 100 commodities, both conventional and organic.[8] A definition section later in this paper provides details on plans of insurance, but in summary, there are 15 different plans of insurance, with six plans based on a farmer's individual historic production records, five based on an area average (a county or weather grid), two using a producer's business tax information, and two livestock plans based on a combination of market pricing and producer sale records. Within these plans, some offer yield-only coverage, some provide yield and revenue coverage, and some cover the producer's risk using a set dollar amount of insurance. Please review the Federal Crop Insurance Plan of Insurance Summary later in this paper.

Additionally, there are several policy endorsements and options, a growing number of third-party-developed programs that are offered as a pilot program through the RMA (not all such policies are subsidized), and a variety of levels of coverage that determine what portion of the farmer's historic crop productivity he or she will "self-insure" (the deductible). All federal crop insurance policies consist of the general crop insurance provisions (basic provisions), crop-specific provisions, special provisions, and, if applicable, policy endorsements and commodity exchange price provisions.[9]

A crop insurance policy is a contract between the farmer and their insurance provider, called an Approved Insurance Provider (AIP). For the 2014 reinsurance year, there are 18 AIPs[10] in the United States. Farmers work with independent agents who are contracted with one or more AIPs to consider insurance options and make a purchase that fits their operation.

Under this contract, the farmer agrees to insure all the eligible acreage of a crop planted in a particular county. This requirement reduces adverse selection. Adverse selection refers to a market process in which undesired results occur when buyers (here, the farmers) and sellers (the AIP and RMA) have access to different information. If, for example, a farmer could insure select acreage, he or she may choose only to insure poor acreage that does not produce well; this would negatively impact the overall loss ratio of crop insurance and eventually drive rates higher, a negative impact on all parties involved.



The crop insurance policy contract also requires the farmer to report acreage and required production accurately, meet policy deadlines, pay premiums when due and report losses immediately.[11] The insurance provider agrees to indemnify the insured farmer against losses due to perils beyond the farmer's control that occur during the crop year.[12] Most commonly, these perils are generally weather perils, such as drought, excessive moisture, plant disease, frost/freeze, and the results of such perils, such as excessive loss of crop quality, inability to plant, and the expense of replanting a crop.

The Insurance Cycle [13]

"Changes to the insurance policy may be made by RMA from one year to the next. Such changes will be available on RMA's website not later than the contract change date contain[ing] the applicable crop provisions. The insurance provider will notify the policyholder in writing of any changes to the basic provisions, crop provisions, Commodity Exchange Price Provisions, if applicable, and special provisions of insurance not later than 30 days prior to the cancellation date for the insured crop. The [insured farmer] will have the opportunity to review the changes and, if desired, continue the insurance coverage for the following crop year, change the policy coverage, or cancel the insurance coverage. Any changes to the policy coverage that the policyholder makes must be made no later than the crop sales closing date. If the [insured farmer] wishes to cancel the policy, a written notice must be submitted to the insurance provider on or before the crop cancellation date."[14]

Crop Insurance in Calendar Year 2013

RMA summary of business data[15] provides the following nation-wide crop insurance totals for crop years 2008, 2012, and 2013 (year-to-date):

	2008	2012	2013 YTD (10/28/13)
Policies Sold	1,956,111	2,106,124	2,193,668
Policies w/Premium	1,149,258	1,173,869	1,217,656
Net Acres Insured	272,260,028	282,927,660	294,385,379
Liability	$89,896,533,956	$117,131,373,967	$122,798,212,183
Gross Premium	$9,851,304,896	$11,111,067,648	$11,692,227,214
Subsidy	$5,690,909,798	$6,975,664,018	$7,223,464,592
Indemnity	$8,679,942,388	$17,416,017,095	$5,043,686,494
Loss Ratio	88%	157%	43%

Crop Insurance Issues of Interest

The following issues are currently being debated in Congress and discussed among various organizations, media outlets, and individual citizens.

There are arguments on each side of the following issues:

- Crop insurance subsidy structure should be revised[16,17,18,19,20]

- Cap premium subsidies for farmers with an annual gross income (AGI) at a specific level. There is disagreement as to what that AGI cap level should be – some say $250,000 AGI (House-passed), some say $750,000 (Senate-passed), some want a tiered structure – and whether the AGI should be all household/business income or farm-only income.
- Reduce the amount of calculated crop insurance premium subsidized by the Federal government.
- Current insurance subsidy example: A wheat farmer in McPherson County, KS purchases a 2014 revenue protection crop insurance policy at a 75% coverage level with an optional unit structure (units are based on the records a farmer can provide along with other policy qualifying factors). The 75% coverage level means the farmer is "self-insuring" the first 25% of the wheat's value (a 25% deductible). The farmer's wheat policy premium is subsidized by the FCIC at 55%. This means the farmer only pays 45% of the calculated policy premium.
- Crop insurance should continue to expand coverage to more fresh market, specialty, and organic crops, especially for small, diverse farms.[21,22,23]
- Administrative and operating expenses paid to Approved Insurance Providers (AIPs) for operating the crop insurance program on behalf of the RMA should be further reduced.[24,25,26]
- Conservation compliance should be reinstated as a requirement of the crop insurance policy and land that is constantly stressed and poor performing should be classified as high risk.[27,28]
- Crop insurance should be "held harmless" in the Farm Bill finalization and be strengthened and expanded.[29,30,31,32]
- Coverage should expand to new crops, types, practices, and growing methods.

Federal Crop Insurance Plan of Insurance Summary

RMA briefly defines each listed plan on their website policies overview.[33] We provide RMA's definition for all plans of insurance below.

Plans Based on Individual Production

- **Actual Production History (APH)** policies insure producers against yield losses due to natural causes such as drought, excessive moisture, hail, wind, frost, insects, and disease. The producer selects the amount of average yield to insure; from 50-75 percent (in some areas to 85 percent). The producer also selects the percent of the predicted price to insure; between 55 and 100 percent of the crop price established annually by RMA. If the harvested plus any appraised production is less than the yield insured, the producer is paid an indemnity based on the difference. Indemnities are calculated by multiplying this difference by the insured percentage of the price selected when crop insurance was purchased and by the insured share.

- **Actual Revenue History (ARH)** plan of insurance has many parallels to the APH plan of insurance, with the primary difference being that instead of insuring historical yields, the plan insures historical revenues. The policy is structured as an endorsement to the Common Crop Insurance Policy Basic Provisions. It restates many of the APH yield procedures to reflect a revenue product. Each crop insured under ARH has unique crop provisions. Like current revenue coverage plans, the ARH pilot program protects growers against losses from low yields, low prices, low quality, or any combination of these events.

- **Adjusted Gross Revenue (AGR)**[34] and **AGR-Lite**[35] policies insure revenue of the entire farm rather than an individual crop by guaranteeing a percentage of average gross farm revenue, including a small amount of livestock revenue. The policies use information from a producer's Schedule F tax forms, and current year expected farm revenue, to calculate policy revenue guarantee.

- **Dollar Plan** policies provide protection against declining value due to damage that causes a yield shortfall. The amount of insurance is based on the cost of growing a crop in a specific area. A loss occurs when the annual crop value is less than the amount of insurance. The maximum dollar amount of insurance is stated on the actuarial document. The insured may select a percent of the maximum dollar amount equal to CAT (catastrophic level of coverage), or purchase additional coverage levels.

- **Revenue Protection** policies insure producers against yield losses due to natural causes such as drought, excessive moisture, hail, wind, frost, insects, and disease, and revenue losses caused by a change in the harvest price from the projected price. The producer selects the amount of average yield he or she wishes to insure; from 50-75 percent (in some areas to 85 percent). The projected price and the harvest price are 100 percent of the amounts determined in accordance with the Commodity Exchange Price Provisions and are based on daily settlement prices for certain futures contracts. The amount of insurance protection is based on the greater of the projected price or the harvest price. If the harvested plus any appraised production multiplied by the harvest price is less than the amount of insurance protection, the producer is paid an indemnity based on the difference.

- **Revenue Protection with Harvest Price Exclusion** policies insure producers in the same manner as Revenue Protection polices, except the amount of insurance protection is based on the projected price only (the amount of insurance protection is not increased if the harvest price is greater than the projected price). If the harvested plus any appraised production multiplied by harvest price is less than the amount of insurance protection, the producer is paid an indemnity based on the difference.

- **Yield Protection** policies insure producers in the same manner as APH polices, except a projected price is used to determine insurance coverage. The projected price is determined in accordance with the Commodity Exchange Price Provisions and is based on daily settlement prices for certain futures contracts. The producer selects the percent of the projected price he or she wants to insure, between 55 and 100 percent.

Plans Based on Performance within an Area

- **Area Risk Protection Insurance (ARPI)** is an insurance plan that provides coverage based on the experience of an entire area, generally a county. ARPI replaces the Group Risk Plan (GRP) and the Group Risk Income Protection Plan (GRIP and GRIP-HRO).

- **Group Risk Plan (GRP)** is designed as a risk management tool to insure against widespread loss of production of the insured crop in a county. GRP policies use a county yield index as the basis for determining a loss. When the estimated county yield for the insured crop, as determined by National Agricultural Statistics Service (NASS), [36] falls below the trigger yield level chosen by the producer, an indemnity is paid. Payments are not based on an individual producer's crop yields. Coverage levels are available for up to 90 percent of the expected county yield. GRP involves less paperwork and costs less than plans of insurance against individual loss, as described above. Under GRP, insured acreage for an individual producer's crop may have low yields and not receive a payment if the county does not suffer a similar level of yield loss. This insurance is primarily intended for producers whose crop yields typically follow the average county yield.

- **Group Risk Income Protection (GRIP)**[37] is designed as a risk management tool to insure against widespread loss of revenue from the insured crop in a county. GRIP policies use a county revenue index as the basis for determining a loss by using the estimated county yield for the insured crop, as determined by National Agricultural Statistics Service (NASS), multiplied by the harvest price. If the county revenue falls below the trigger revenue level chosen by the producer, an indemnity is paid. Unlike GRP, it is not necessary to have a decline in yield to be indemnified, as long as the combination of price and yield results in a county revenue that is less than the trigger revenue. Payments are not based on individual producer’s crop yields and revenues. Coverage levels are available for up to 90 percent of the expected county revenue. GRIP involves less paperwork and costs less than plans of insurance against individual loss as described above. Under GRIP, an individual producer’s crop may receive reduced revenue from the insured acreage and not receive a payment under this plan if the county does not suffer a similar level of revenue loss. This insurance is primarily intended for producers whose crop yields typically follow the average county yield and wish to insure that the combination of yield and price result in a particular level of revenue.

- **Group Risk Income Protection - Harvest Revenue Option (GRIP-HRO)** is a supplemental endorsement to the GRIP Basic Provisions. The Harvest Revenue Option changes the trigger revenue to be the result of multiplying the expected county yield by the greater of the expected price or the harvest price and by the producer chosen coverage level percentage. If the county revenue for the insured crop, type, and practice falls below the GRIP-HRO trigger revenue, an indemnity is paid.

- **Rainfall Index (RI)**[38] is based on weather data collected and maintained by the National Oceanic and Atmospheric Administration's Climate Prediction Center. The index reflects how much precipitation is received relative to the long-term average for a specified area and timeframe. The program divides the country into six regions due to different weather patterns, with pilots available in select counties.

- **Vegetation Index (VI)**[39] is based on the U.S. Geological Survey's Earth Resources Observation and Science (EROS) normalized difference vegetation index (NDVI) data derived from satellites observing long-term changes in greenness of vegetation of the earth since 1989. The program divides the country into six regions due to different weather patterns, with pilots available in select counties.

Plans for Livestock Price Coverage

- **Livestock policies (Livestock Risk Protection and Livestock Gross Margin)**[40] are designed to insure against declining market prices of livestock and not any other peril. Coverage is determined using futures and options prices from the Chicago Mercantile Exchange Group. Price insurance is available for swine, cattle, lambs and milk. Producers decide the number of head (hundredweight of milk) to insure and the length of the coverage period. There are two types of plans available: **Livestock Risk Protection**, provides coverage against market price decline, if the ending price is less than the producer determined beginning price and indemnity is due; and **Livestock Gross Margin**, provides coverage for the difference between the commodity and feeding costs. If the producer determined expected gross margin is greater than the actual gross margin, an indemnity is due.

Recommended Reading

Risk Management Agency website resources, http://www.rma.usda.gov, accessed 11/19/13. If you want to read policies, view actuarial pricing and coverage levels, or learn anything about the federal crop insurance program, the RMA website provides it to the public at large. This is the same information used by AIPs, agents, and farmers.

Crop Insurance in America, http://www.cropinsuranceinamerica.org/, accessed 11/19/13. This website is generally supportive of crop insurance. It offers a variety of basic facts, farmer interviews and scenarios, links to primary source information, and a set of common questions, answers, and refutations of other organizations' and news media's statements concerning crop insurance.

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