

General Guidelines, Considerations, and Criteria for Feasibility of Insurance Product Development

March 2012

Introduction:

This document provides general information that may be helpful to private entities who are interested in developing crop insurance products for either crops or livestock. This information has been gleaned from past product development processes and experiences over time, both through the development of contracted new insurance products and from those that were submitted under section 508(h) of the Federal Crop Insurance Act (Act).

Note: The Act, Code of Federal Regulations (CFR), and Board Procedures cited at the end of this document are the official documents that provide the requirements for ultimately submitting a privately developed product and must be followed for any insurance products submitted to the Federal Crop Insurance Corporation.

General Criteria to Consider When Determining Feasibility of an Insurance Product

In general, assessing feasibility of an insurance product prior to development of a crop insurance policy, associated procedures, and insurance rating and pricing methodologies is a critical component necessary to the ultimate successful development of a crop insurance product. The following items are crucial in the assessment of feasibility:

1. There must be a **recognized need for some type of insurance** to manage a specific risk or multiple risks and the insured party must have an **insurable interest**.
 - The insurance product must be effective and meaningful and, therefore, ultimately marketable before one undertakes the time, effort, and financial resources to create and implement an insurance product.
 - The party to be insured must have an ‘insurable interest’ in the commodity. This means some portion of the commodity at risk must be ‘owned’ by the insured party. (For example: Contract growers of livestock often provide labor and housing but have no ownership of the actual animals so do not have an insurable interest.)
2. **Evidence of demand** from agricultural producers for the insurance product at the expected cost must be documented to indicate that an insurance product would be **marketable**.
 - The cost of the insurance will depend upon the risks covered and the levels of coverage provided, but cost is an important factor to consider when evaluating demand.
 - Demand also will go hand in hand with the recognized need for some type of insurance.
 - Indications of the need for a product must be backed with some evidence that agricultural producers will purchase the insurance product once it is developed and implemented. Specific grower group support is helpful to show producer demand.

- Additionally, an insurance company must be interested in marketing the insurance product.
 - The amount of market penetration that can reasonably be expected for the commodity must be sufficient for an insurance product to be feasible, to justify the administrative cost to create, implement and operate the product.
3. There must be **sufficient and credible data available to use in rating and pricing** a potential insurance product.
- Sufficient data is needed for an insurance product to be feasible. Some important facets of sufficient data are:
 - The data must reflect the risks to be covered. For example, a yield based policy will need to have a series of yields over time for rating purposes and a price for the current year. A revenue based product would need both yields and prices. Any risks covered in the insurance policy must be reflected in the data. If specific risks are covered individually, such as a decline in price, then those risks must be identifiable with specific data.
 - Generally a series of both yield and price data over time are needed for an insurance product to be feasible. Data at the individual producer level is optimal because it also shows variability between producers during the insured year which is helpful for rating purposes.
 - The data should be identifiable with a specific crop year to provide a reflection of the risks for a particular year.
 - For revenue based crop insurance products, pricing data are needed at both the time of purchase and again at the time of harvest.
 - Each individual potential insurance product will have different data needs associated with the risks covered. For insurance rating purposes, data over a period of time is required.
 - Credible data from an unbiased source is needed for an insurance product to be feasible. Some important facets of credible data are:
 - The data set used for the insurance product should represent the full population of potential insured's, as opposed to a subset of data that might reflect only potential insured's with specific characteristics such as those with the highest yields. Some typical types of data used are:
 - National Agricultural Statistics Service data. (NASS-USDA)
 - Risk Management Agency insurance experience data. (RMA-USDA)
 - Farm Management data from university or state level farm management associations.
 - Weather data from government sources
 - Data compiled by grower groups from compulsory data reporting.
 - University data.
 - Other data sets from unbiased, third party sources.

- Contract prices are sometimes used to value the insurance for yield based products. These prices need to be available through multiple processors.
 - If the commodity has not been produced for at least 5 years in an area, data for the commodity from another area similar to the area of interest can be used.
 - If data for the commodity is not available, data from another commodity for which a substantiated relationship can be shown to the commodity of interest and which is appropriate for the region of interest can be used. The following considerations should be made when using ‘reference data’:
 - ✓ The relationship for yield information should take into consideration agronomic characteristics (for example-similar perils would affect the commodity and similar planting and harvesting times) as well as similar cultural practices (see the perils section below for more information).
 - ✓ The relationship for price information should consider external factors that could affect prices (for example-similar markets and market behavior or similar import pressures on price.)
 - The source of the data should be one that does not have a financial incentive to modify the data or change terms within the market in order to shift risk to the potential insurance policy.
 - All data must be identifiable by source.
 - Data must be sustainable for an insurance product to be feasible. This means it must be available to rate and price the insurance product on a reoccurring basis year after year (or more frequently depending upon the insurance product).
4. **Perils to the commodity must be identified and be determined to be insurable or non-insurable and losses must be measurable and attributable to the insurable causes of loss.**
- The Act requires losses insured under the Federal crop insurance program to be due to natural causes and also includes authority for insuring revenue. All feasibility considerations for an insurance product that will be offered under Federal crop insurance must include only the types of losses authorized by the Act.
 - For most types of insurance, measurement of the insured commodity must be made at the beginning of the insurance period and again after a loss or at the end of the insurance period to determine the amount of loss. Simplicity, efficiency, cost, and accuracy must all be considered with regard to measurement and are all factors in the potential feasibility of a considered insurance product.
 - A wealth of knowledge about the commodity is crucial for the determination of risks to the commodity and how to measure and insure these risks. The following items indicate

the depth of knowledge that must be considered to evaluate feasibility of an insurance product:

- Agronomic factors such as varieties, whether the commodity is alternate bearing, the number of years to bearing a full crop and how to handle the years prior to that time, stages of growth, dates for planting, replanting, harvest, or any other crucial dates, and whether the commodity is an annual, biennial, or perennial should all be considered.
 - Cultural practices such as crop rotation requirements, chemical and fertilizer needs, pest control and production practices need to be considered. Best management practices must be identified and for a product to be feasible, must be possible to require and monitor.
 - External factors such as location, weather, changing climate conditions, markets and soils should be considered.
4. An appropriate **actuarial rating methodology and a pricing methodology appropriate for the risks covered** must be possible to develop in order for an insurance product to be feasible. These methodologies:
- Must reflect only, and or all, of the specific risks covered by the policy.
 - Must be possible by utilizing the credible and sufficient data that is available.
 - Must be conducted using generally accepted actuarial science.
 - For prices, must reflect to the extent possible, an edge of field price without storage or any added value amounts because the Act has specific authorities for FCIC on what may be covered. (Some commodities are different, so consult the Act to determine price feasibility for individual products.)
 - Must reflect appropriate values for the period in question, for example:
 - The price used should be representative of the appropriate crop year
 - An initial price for insurance should reflect what is known at the time the insurance is written about the expected price at the end of the insurance period
 - Harvest prices should reflect the price at the end of the insurance period
5. The proposed insurance product **must not be generally available in the private marketplace** in order to be feasible.
- The Act, in section 508(l) allows FCIC to offer many specific risk protection programs, but does not allow programs that have private sector coverage available for the specific risks. Therefore, to be feasible under Federal crop insurance, a very similar product that covers the same risk cannot be available in the private insurance marketplace.

6. **General insurance principles** that should be considered when determining feasibility of a crop or livestock insurance product:

- Risks to be insured must be pure risks (not speculative).
- Insured parties should not be able to adversely select against the insurer prior to purchasing the product.
- Potential insurance products should not provide insured amounts greater than the value of the commodity.
- Moral hazards (situations where insured parties have the opportunity to act dishonestly to increase losses) during the insurance period must be avoidable or controllable.
- It must be possible to calculate the amount of protection and to identify the cause, general time or period of occurrence, and location of the loss.
- Covered losses must be verifiable.
- Potential insurance products are not feasible if they provide an amount of insurance in excess of the value of the commodity.
- If specific kinds of coverage are included in a commodity insurance program (such as including quality coverage), the standards of that coverage (such as grading standards), credibility of the process used to apply the standards, and potential costs need to be considered to determine the potential feasibility.
- All feasibility depends upon good insurance principles including guarding against adverse selection (situations where insured parties have more information than the insurer and can increase losses).

7. Some additional **feasibility requirements to consider**.

- Presence of the insurance product must not create situations that could lead to changes in market behavior or create market distortions. (For example-offering a price that is too high for commodity insurance in a particular area could cause growers to plant additional acres, resulting in a flooded market and eventual decreases in price.)
- Insurance products that provide coverage similar to that provided by commodity exchange markets are not feasible if they are to be provided at premium costs that could change purchasing decisions between commodity futures markets and the insurance product.
- Insurance products are not feasible if they are generally available from the private sector.
- Insurance products are not feasible if they provide last year's price for this year's commodity without consideration of changes in the marketplace.
- Insurance products are not feasible if they provide a method to harvest the subsidy amount by negating the risk protection provided by the insurance.
- Insurance products are not feasible if they provide unfair advantages to some producers over others.

Privately Developed Insurance Programs and Federal Crop Insurance

Section 508(h) of the Federal Crop Insurance Act (Act) allows individuals to submit plans of insurance, provisions of insurance, or rates of premium to the Federal Crop Insurance Corporation (FCIC) for consideration of approval. Additionally, the Act allows individuals to submit Concept Proposals for proposed 508(h) submissions prior to fully developing a 508(h) product. A Concept Proposal, if approved, by the Board for further development may receive up to 50 percent of the estimated development costs up front to assist in the development effort.

If privately submitted insurance products developed under section 508(h) are approved by the FCIC Board of Directors (Board), they are eligible for reimbursement of reasonable research and development costs and up to four years of maintenance expense reimbursement.

If the Board approves a submitted Concept Proposal, the Board may advance up to 50 percent of expected research and development costs to the submitter for use in the development of the 508(h) submission.

Three documents provide guidelines for private parties to use to submit privately developed crop or livestock insurance policies to the FCIC. These documents are:

(1) The Federal Crop Insurance Act provides guidelines on what types of products are allowed to be reinsured and legal authorities for coverage. See the Act at: <http://www.rma.usda.gov/regs/authorizing.html>

(2) The Code of Federal Regulations (CFR), part 400.700, Subpart V-Submission of Policies, Provisions of Policies, and Rates of Premium provides all necessary guidelines on what to submit for potential insurance products, when privately developed products may be submitted, and how the reimbursement for research and development and maintenance is handled. See Subpart V at: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title07/7cfr400_main_02.tpl

(3) The FCIC Board Approved Procedures for Submission of Concept Proposals Seeking Advance Payment of Research and Development Expenses, Procedures Number 17030. This document provides information on how to submit Concept Proposals and how the advance payments work. If a Concept Proposal is submitted and an advance payment is made, the submitter subsequently uses Subpart V (in Item 2 above) to submit a fully developed insurance product. See the Concept Proposal Procedures at: <http://www.rma.usda.gov/fcic/2009/107procedures.pdf>