



Crop Insurance for Alfalfa Seed Production: A Pilot Program Available in Select Wyoming Counties

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**Objective Analysis
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Decision Making**

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Introduction

In several western states including Wyoming a federally-subsidized multiple peril crop insurance product approved by the Risk Management Agency is offered on a pilot basis for forage seed production. In Big Horn and Park counties (Figure1) irrigated *alfalfa seed production* grown under certification standards or grown under an alfalfa seed contract is insurable.

Insurance is provided against the following causes of loss in alfalfa seed production: (a) adverse weather conditions, (b) fire, (c) insects or plant disease—but not damage due to insufficient or improper application of control measures, (d) wildlife, (e) volcanic eruption, or (f) failure of irrigation water supply. However, multiple peril crop insurance does **not** cover damage or losses in alfalfa seed production due to: (1) an untimely harvest unless such delay in harvesting is solely and directly caused by an insurable cause of loss (as noted above), (2) insufficient supply of pollinators unless the lack of pollinators or pollination is solely and directly caused by an insurable cause of loss, (3) failure of the certification standards or a seed company contract acceptance because of improper

isolation measures or inadequate weed control unless such failure is solely and directly due to an insurable cause of loss, and (4) failure of a certification standard or seed contract acceptance due to all other certification or contract requirements unless such failure is solely and directly caused by an insurable cause of loss.

Terms Used in Alfalfa Seed Crop Insurance

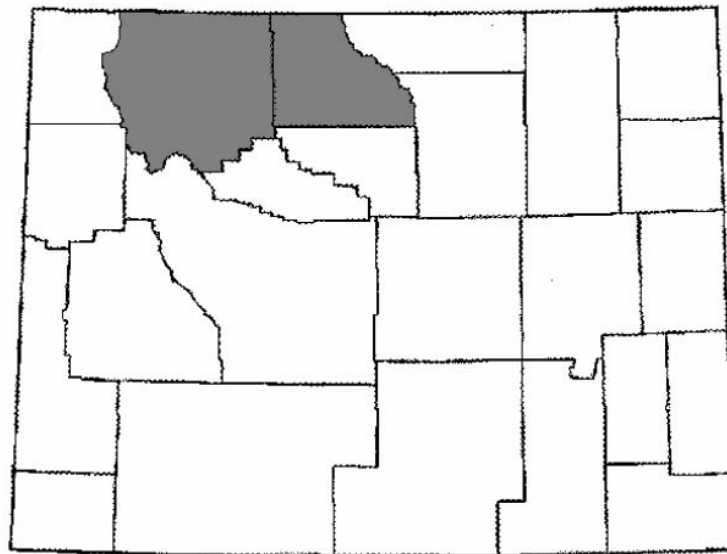
Key terms used in multiple peril crop insurance for alfalfa seed production follow:

Actual Production History (APH): APH is established by actual production per acre over a 4 to 10 year period. APH is used as the basis for determining the production (or yield) guarantee.

Base Price: For alfalfa seed under contract, this is the price per pound (excluding any discount or incentive that may apply) stated in the alfalfa seed contract. For certified alfalfa seed not under contract, the base price is the *maximum price election* as specified by the Risk Management Agency.

Coverage Level: Alfalfa seed producers may choose a coverage level of 50, 55, 60, 65, 70, or 75 percent of the *actual production history*.

Figure 1: Pilot Alfalfa Seed Production Crop Insurance Coverage



Established Stand: An adequate stand of live alfalfa plants for crop years after the seed-to-seed year.

Fall Planted: This is an alfalfa seed crop planted after May 31 of the previous crop year.

Price Election: Producers may choose to insure from 60 to 100 percent of the alfalfa seed **base price**.

Seed-to-Seed Year: The calendar year in which planting occurs for spring planted alfalfa seed and the subsequent calendar year for fall planted alfalfa seed.

Spring Planted: Alfalfa seed planted before June 1 of the current crop year.

Insured Crop

The crop to be insured is **irrigated alfalfa seed** grown solely for harvest as certified seed under a certifying agency's standards or under a seed contract. Alfalfa must be a winter hardy variety with a dormancy rating of 1 to 4.

Alfalfa varieties have dormancy ratings from dormant (1) to non-dormant (10). These ratings measure a variety's winter hardiness. Dormant varieties with ratings of 1 to 3 have the highest level of winter hardiness whereas semi-dormant have ratings of 4 to 6. Varieties with rating of 7 to 10 are least hardy.

The alfalfa seed production policy does not cover an alfalfa seed crop that is:

- Interplanted with another crop;
- Does not have an adequate stand at the beginning of the insurance period, as indicated by the following values:

Established Stand	Fall Planted, Seed to Seed	Spring Planted, Seed to Seed
0.2 living alfalfa plants per square foot	1.5 alfalfa plants per square foot	1.5 alfalfa plants per square foot

- Exceeds the earlier of the maximum age of stand stipulated by the originator of the certified seed or the 6th and succeeding year after the crop year of initial seeding;
- Is utilized for any purpose during the crop year other than for seed production.

Insurable Units

Alfalfa seed acreage can be grouped into one or more units in order to establish applicable APH values, calculate production guarantees, and determine indemnities. Enterprise units are not applicable to alfalfa seed production. A basic unit includes all of a producer's alfalfa seed acreage in a county by share arrangement.

Alfalfa seed acreage grown under a seed contract may have optional units established by alfalfa variety. If optional units by variety are selected, all acres of an alfalfa variety will be included in the optional unit even if more than one alfalfa seed contract is applicable to the variety.

Some producers may produce alfalfa seed solely for harvest as certified seed without a seed contract. They may qualify their alfalfa seed acres located in separate sections (different legal descriptions) for optional units if they have maintained appropriate production records and acreage reports of seed production in the various sections.

Other Considerations

Catastrophic Risk Protection (CAT) is available for alfalfa seed production. CAT is available at the 50 percent **coverage level** and at 55 percent of the **base price**.

Written agreements are not available for multiple peril alfalfa seed production crop insurance.

Late planting and **prevented planting** provisions of multiple peril crop insurance are not applicable to alfalfa seed production.

Table 1: Example of Alfalfa Seed Insurance Coverage

Contract Data	Value	Calculation
Actual Production History	800 pounds/acre	Producer
Coverage Level	75 %	Producer
Yield Guarantee	600 pounds/acre	800 pounds/acre x 75 %
Base Price	\$1.07/pound; the current <i>maximum price election</i> for non-contracted seed	RMA
Price Election	100 %	Producer
Value Guarantee	\$642/acre	600 pounds/acre x \$1.07/acre

Insurance Period

Multiple peril crop insurance for alfalfa seed production becomes effective on the latter of the date the producer’s application is accepted or the applicable date as follows:

For established stands of alfalfa seed the coverage begins each crop year on November 1.

For the fall planted seed-to-seed year stands coverage begins on November 1.

For the spring planted seed-to-seed year stands coverage begins on May 15.

The end of the insurance period for the Wyoming pilot counties is October 31. The insurance period could end earlier if there is total destruction of the alfalfa seed crop, a final adjustment for a loss of the alfalfa seed crop, harvest of the alfalfa seed crop has been completed through the removal from the windrow or the field, or livestock commenced grazing on the alfalfa seed acreage prior to October 31.

Example of Alfalfa Seed Production

Consider a producer with an established stand solely devoted to alfalfa seed production in Park County. This producer has a long history of producing alfalfa seed but does not produce seed under contract (Table 1).

Alfalfa Seed Production Crop Insurance Premiums

Premium calculations for multiple peril crop insurance for alfalfa seed production are base on the *value guarantee*.

The *gross premium* is the **value guarantee** times the premium rate. Premiums may be determined through producer interactions with crop insurance agent and/or through the use of the premium calculator available on the RMA website.

The federal government subsidizes multiple peril crop insurance premiums to the producer. The coverage level selected by the producer determines the premium subsidy.

The value of the premium subsidy is the *gross premium* times the subsidy level. The *producer premium* is the *gross premium* less the value of the premium subsidy.

The premium subsidy rates by coverage level are shown (Table 2).

Table 2: Subsidy Rates by Coverage Level, Individual Yield Policies

Coverage Level (%)	Subsidy Rate
50	0.76
55	0.64
60	0.64
65	0.59
70	0.59
75	0.55

Continuing with the Park County alfalfa seed production example, the producer would arrive at the applicable per acre premium as follows (Table 3).

Table 3: Example Premium Calculation for Alfalfa Seed Insurance, Park County

Contract Data	Value	Calculation
Value Guarantee	\$642/acre	640 pounds/acre x \$1.07/pound
Gross Premium	\$38.52/acre	\$642 x 0.06, using an assumed premium rate of 6 %
Premium Subsidy	\$21.19/acre	\$38.52 x 55%, the subsidy rate for a 75 % coverage level
Producer Premium	\$17.33/acre	\$38.52/acre - \$21.19/acre

Indemnity Calculations

Insurable losses of alfalfa seed production often are manifested in yield losses in quality due some insurable cause of loss. Production that is harvested is considered *production to count*.

A producer’s indemnity is calculated as follows:

$$\text{Indemnity} = \text{Value guarantee} - \text{production to count.}$$

Continuing with the Park County example, assume that only 350 pounds was harvested and sold at the expected price of \$1.07 per pound. An additional 100 pounds was harvested, but did not meet certain certification specifications, so was sold at \$0.80 per pound.

In calculating the *production to count*, the 350 pounds harvested and sold at the expected price equals \$374.50 (350 pounds x \$1.07).

However, there is a quality adjustment procedure for production not meeting the minimum quality requirements in the certifying agency’s requirements (or in the quality requirements of a seed contract). To determine *production to count* for production reduced in price due to quality issues, the following procedures are specified:

- (a) Divide the actual price received per pound by the *base price*;
- (b) Multiply the result in (a) by the number of quality-impacted pounds; and
- (c) Multiply the result in (b) by the *base price*.

So the production to count for the 100 pounds of reduced quality alfalfa seed harvested and sold is:

- (a) $\$0.80/\$1.07 = 0.748$
- (b) $0.748 \times 100 \text{ pounds} = 74.8 \text{ pounds}$
- (c) $74.8 \text{ pounds} \times \$1.07 = \$80.04$

So the indemnity due the Park County producer is:

$$\text{Indemnity} = \$642/\text{acre} - \$374.30/\text{acre} - \$80.04/\text{acre} = \$187.36 \text{ per acre.}$$

Summary

Multiple peril crop insurance for alfalfa seed production is available on a pilot basis in two Wyoming counties. The insurance product insures against losses in production and quality losses caused by insurable causes of loss.

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