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Crop Insurance Alternatives for Hay in South Dakota

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Crop insurance for hay is a relatively new idea in much of South Dakota. After a few years as a pilot program, federal forage crop insurance was offered statewide for the 2001 crop year. Producers, crop insurance agents, and regulatory agencies had a learning curve to overcome, and adoption was slow. Hay insurance will likely be popular with producers because the crop is widely produced and has substantial yield variability (Dismukes et al 1995).

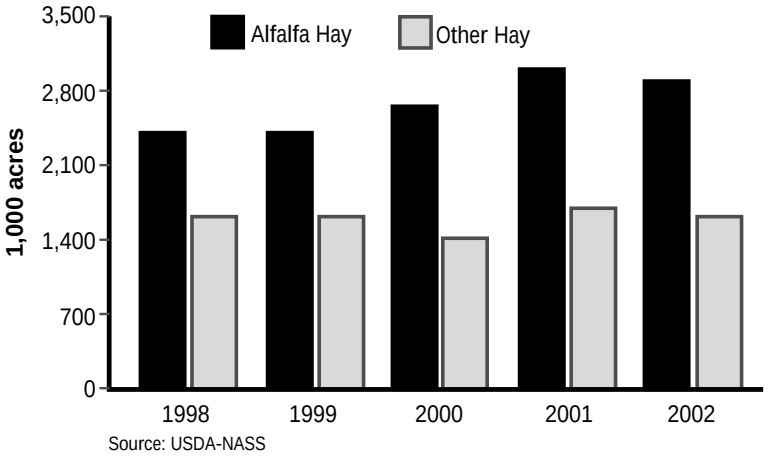
This paper outlines the basic features of forage crop insurance, where it may be used, and the various decisions producers face when contemplating using this risk management tool.

The what, how, and when of coverage

The National Agricultural Statistics Service (NASS) uses two hay categories: "alfalfa and alfalfa mixtures for hay" and "all other hay," Alfalfa is the dominant hay produced in South Dakota, but other hay also accounts for substantial acres (Fig 1). According to NASS, in 2002 South Dakota producers intended to harvest 2.9 million acres of alfalfa hay and 1.6 million acres of other hay.

The distinction between hay types is important as NASS also reports that the 2001 marketing year average price in South Dakota was $71.50 per ton for alfalfa hay but only $46.50 per ton for other hay.

Figure 1. South Dakota hay production



Knowing the hay types is also relevant because federal forage crop insurance offered in South Dakota is centered on alfalfa, meaning that other hay may not be coverable.

The Risk Management Agency (RMA) administers the federal crop insurance programs.[1] Catastrophic coverage (CAT) and Multiple Peril Crop Insurance (MPCI) are both offered in South Dakota for forage. The sign-up deadline is September 30 for both programs to cover production in the following year.

CAT only pays 55% of the price on lost tons at the 50% yield level, but the cost for coverage is also relatively low.

MPCI operates the same way on forage as on other major crops. Established yields can be insured at the 50-75% levels. Thus, with 75% coverage, yield losses of 25% would trigger indemnity payments.

Three insurable types of forage are recognized in South Dakota: alfalfa, alfalfa-grass mixture, and grass-alfalfa mixture. Each type is classified based on age of stand, alfalfa plant counts, and production practices (irrigated or non-irrigated), as spelled out in RMA's "County Actuarial Table."

Plant counts vary substantially by county. Non-irrigated alfalfa coverage is currently available for only 3 years. Then, the coverage automatically reduces to alfalfa-grass mixture, which only lasts for an additional 2 years, and then finally to grass-alfalfa mixture.

A stand of grass-alfalfa mixture does not have an age limit, but a minimum alfalfa plant count is required. Thus, thin stands are the limiting factor that determines the coverage type.

[1] The Risk Management Agency is part of the USDA. Various documents referred to in this paper were accessed from the website, http://www.rma.usda.gov/ Crop insurance agents likely have similar information for specific counties.

In a loss setting, each ton below the trigger yield level would be paid at $64 per ton, the 2003 crop year price for alfalfa and alfalfa-grass mixture coverages. Grass-alfalfa mixture coverage pays $45 per ton on losses.

The use of federal forage crop insurance in South Dakota has been growing as more counties have become eligible. However, in 2002 the 523,477 acres under federal crop insurance is less than 25% of the alfalfa acres producers expected to harvest (Table 1).

Of the acres covered, less than 25% have been under CAT coverage during the last 2 years, with the remainder being MPCI coverage at a variety of coverage levels.

The liability reflects the maximum payout possible from the insurance providers (Table 1). To put the coverage in perspective, the $40 million in coverage (liability) in 2001 was a fraction of the value of the alfalfa crop in South Dakota, which NASS reported at $472 million.

If a stand is ineligible for federal crop insurance (MPCI or CAT), the last resort is the Noninsured Crop Disaster Assistance Program (NAP). NAP is administered by the Farm Services Agency and provides coverage similar to CAT (see Farm Services Agency for details). NAP coverage may be the only option to purchase insurance for other hay. The potential NAP coverage (liability) would be a fraction of the value of the other hay crop in South Dakota, which NASS reported at $119 million for 2001.

Initially setting up coverage

MPCI premiums are subsidized for producers at the same levels as for other crops, 55% or higher on the forage coverage. The 2002 premiums paid in South Dakota for forage insurance amounted to $4.2 million, of which $2.7 million was paid through the subsidy (Table 1). Hence, from an actuarial perspective, producers would benefit from purchasing the insurance.

Table 1. Forage insurance coverage in South Dakota

Year	*Total acres*	*Liability*	*Premiums*	*Indemnity*
2002	523,477	$35,168,535	$4,240,110	$6,115,421 [a]
2001	510,155	$39,539,503	$4,545,355	$4,375,610
2000	70,227	$14,017,108	$767,768	$4,036,041
1999	9,294	$1,139,745	$70,496	$120,318
1998	1,077	$137,484	$8,147	$17,342

Note: [a] Indemnity total as of the report date.
Source: RMA's "Summary of Current Business, As Of: 09/02/2002"

Yields are generally established by using sales records, bale counts and weights, and feeding records. Adverse years will affect established yields, but the use of transitional or "T" yields, similar to other crops, is in place.

Use of "T" yields means that a percent of a trend county yield can be substituted in place of actual yields when initially establishing yields or when actual yields fall below a given percent of the "T" yield. "T" yields vary substantially across counties and over time. Setting up units and proving losses are a point of concern, as are some of the ways that units are arrived at. It should also be noted that grazing is possible and allowed after winter dormancy or by following graze-out provisions.

Shortcomings of the current coverage and summary

The relatively high cost of servicing contracts, extensive record keeping requirements, and the lack of quality loss provisions may be impediments to the success of forage insurance (Dismukes et al, 1995). Those same concerns have been voiced recently by crop insurance providers and by RMA. A high audit record has frustrated producers and insurance agents and has been coupled with more stringent requirements for proving yields. Prices are set according to a standard quality level and may not be appropriate for high-quality alfalfa. This drawback may be limiting grower participation.

Another price consideration is relevant during years of widespread disasters. In the short run, the demand for hay is inelastic, which means the price of hay could increase substantially with a production shortfall and limit the effectiveness of yield insurance.

In summary, crop insurance for alfalfa is available to South Dakota producers. The premium subsidy should make the products attractive, but shortcomings still exist. In addition, many other hay acres are likely to be ineligible for normal federal crop insurance coverage, leaving NAP coverage as the only alternative.

References

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