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Risk Management

Pasture, Rangeland, and Forage Insurance in Texas

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Beginning with the 2011 crop year, the entire state of Texas will be covered by the Pasture, Rangeland, and Forage (PRF) Insurance Pilot Program. The program was initially announced in August 2006, but only specific counties in Texas were offered the insurance. Because of the program's success and demand for the insurance in other areas of Texas, the United States Department of Agriculture has made it available in all Texas counties (see Figure 1). Policies covering the 2011 crop year will be sold by local crop insurance agents until September 30, 2010.

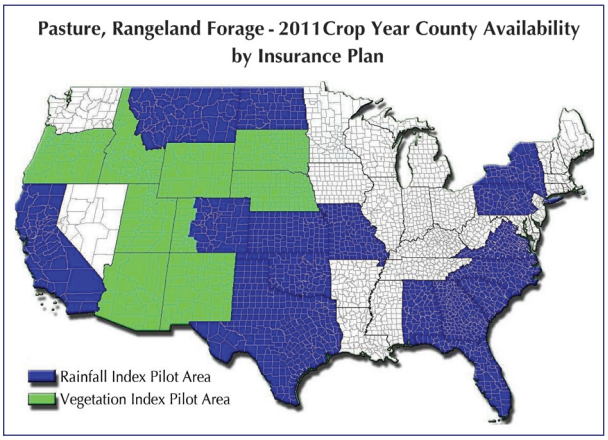

Figure 1. PRF insurance coverage area.

As shown in Figure 1, Texas is covered by the rainfall index program. Oklahoma, which was covered by the vegetation index prior to 2011, is now covered by the rainfall index as well.

Rainfall Index Program

The rainfall index program is designed to protect the income potential of an insured acreage. Producers are not required to insure all their acres. They may elect to insure only those acres that are important to their grazing program or their hay operation and do not have to insure the acreage for the entire crop year. The coverage period begins in January and ends in December. The year is divided into eleven 2-month intervals. Producers may insure their acreage for only those intervals when the risk of below-normal rainfall is the greatest; however, they must insure acreage in at least two intervals and cannot insure more than 50 percent of their insured acres in any one interval. The rainfall index program measures losses based on the amount of rain received as determined by the National Oceanic and Atmospheric Administration (NOAA) in a given interval, compared to a long-term rainfall index for the same interval and grid.

The rainfall index program is for a single peril—lack of precipitation—and covers either grazing acres or hay acres. The entire state of Texas is divided into 12- x 12-mile grids and assigned a rainfall index based on historical rainfall records (1948 to 2010) kept by NOAA.

Each Texas county has been assigned a protection factor based on the potential income per acre that normal rainfall could generate. For example, the protection factor for a grazing acre

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in Motley County, Texas, is $8.30 per acre. However, this value does not reflect an individual producer's management of the land resources. To customize the PRF-Rainfall Index insurance to his own needs, a producer can choose to adjust this factor from 60 percent to 150 percent. In effect, the producer tailors the value to fit his own management programs, such as past brush or weed control plans. Finally, the producer selects an insurance coverage level of 70 percent to 90 percent in 5 percent intervals. Depending upon the coverage level selected, USDA subsidizes the cost of the premium from 51 to 59 percent.

The crop year is a calendar year and is divided into eleven 2-month intervals, with overlapping months— Jan-Feb, Feb-Mar, Mar-Apr, Apr-May, etc. The overlapping intervals were extended to insure better annual average coverage during critical periods. Producers may elect to insure their acreage for only those intervals where the risk of below-normal rainfall is the greatest. However, in Texas, producers must select a minimum of two intervals and cannot insure more than 50 percent in any one interval. Furthermore, a producer can select a month only once. For example, a producer may believe that he needs to insure a portion of his acreage in April. In this case, he must select either the Mar-Apr interval or the Apr-May interval. He cannot choose both. Again, any month can be chosen only once.

Insurance payments to a producer are based on the deficit from normal precipitation within the grid and the intervals selected.

Evaluating the Rainfall Insurance

While more information is available from local crop insurance agents, the following is a guideline for using an internet-based tool to determine approximate premium costs and coverage:

1. **Find your 12- x 12-mile grid** at *http://www.rma.usda.gov/policies/pasturerangeforage*. Under the 2011 Rainfall Index (RI), click on the last bullet labeled "Grid ID Locator, Decision Support Tool, Historical Indices." The easiest and fastest way to find your grid is to locate the "Find a Location" at the top of the screen. Type in the city nearest to your acreage and click Search. For example, type in Matador, Texas, and click Search. Confirm the city if more than one option appears.
2. **Use the slide bar** on the left side of the map to locate your acreage.
3. **Center the grid** that includes your acreage. For this example, we will use the town of Matador, Texas, grid number 16917.
4. Once you have located your grid, **click on the decision support tool** on the far left side of the screen. A set of input cells will come up. Fill in the blanks and select the sample year for which you would like information. These blanks include Insured Crop Type, Coverage Level, Protection Factor, Share, Insurable Acres, and Sample Year. Once completed, move to the Insured Acres per Index Interval within the table to the right. Once all information has been entered, simply click Calculate. With this decision aid you can check the amount of indemnity (if paid) for each of the 62 years from 1948 to 2010.

For example, select 2009 as the sample year. Figure 2 shows the cost/benefit relationship of insuring 1,000 acres of grazing land around Matador, Texas, (grid #16917) at 90 percent coverage and 150 percent of the protection factor, with 300 acres in the Feb-Mar interval, 300 acres in the Apr-May interval, 200 acres in the Jun-Jul interval, 100 acres in the Aug-Sep interval, and 100 acres in the Oct-Nov interval. Notice that 2009 was selected as the sample year to see if an indemnity payment would have been paid. After Calculate is clicked, the lower portion of the table shows the County Base Value per Acre, the Dollar Amount of Protection per Acre, the Total Insured Acres, the Total Policy Protection, and the Subsidy Level. The last two lines of the table show the per-acre and total policy values. So, a producer would pay $1.22 per acre to protect potential income of up to $11.21 per acre.

In the sample year, 2009, the policy would have paid $2.84 per acre. In this example, the producer's selected grid received more than 90 percent of normal rainfall during the intervals of Jun-Jul (134.3 percent) and Aug-Sep (109.8 percent) as listed in the column titled Actual Index Value. During the Feb-Mar, Apr-May, and Oct-Nov intervals, rainfall received was only 46.1 percent, 69.4 percent, and 55.6 percent of normal. During these three intervals, the producer would have been eligible for an indemnity payment.

In this example, a producer who purchased this insurance would have created his own protection value of $11.21 per acre. The total premium would have been $2.49 per acre. At a 90 percent coverage

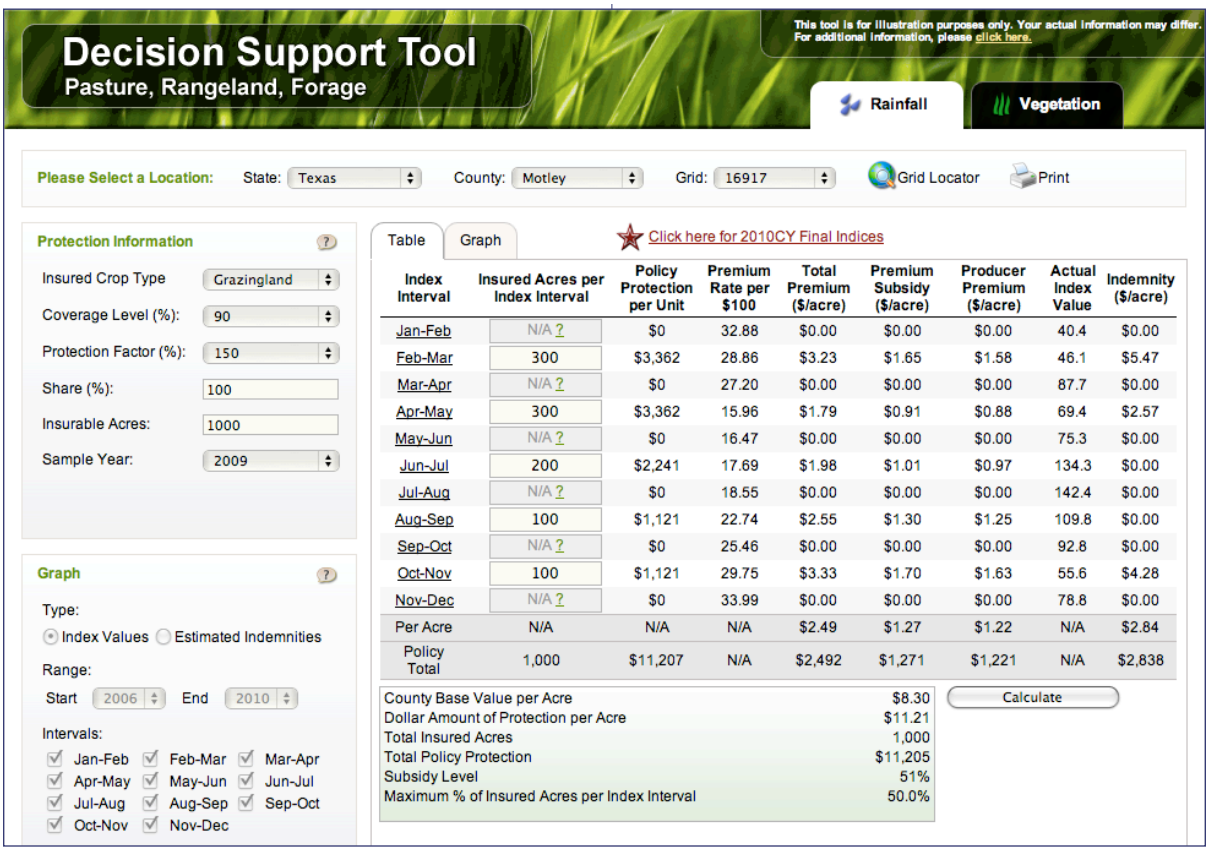

Figure 2. Premiums and indemnities for grazing land in Motley County, Texas for sample year 2009.

rate, the subsidy is 51 percent; thus, the cost to the producer for this insurance package would have been $1.22 per acre, plus a $30.00 administration fee. Because three of the selected intervals did not receive rainfall greater than his coverage rate of 90 percent, the producer was eligible for indemnity payments totaling $2.84 per acre for those intervals.

For specific details and links to the various components of these programs, go to *http://www.rma.usda.gov/policies/pasturerangeforage/*.

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