



Southeast Wyoming farm owners ponder risk management strategies – part III

By James Sedman and John Hewlett

In November and December articles, we looked at the risk management strategies of Big Country Farms, a southeast Wyoming wheat farm operated by John and Jen Colpher.

The Colphers decided to pursue a more aggressive insurance strategy for their irrigated and dryland wheat by using the new Revenue Protection with Harvest Price Exclusion (RP-HPE) insurance, helping them insure against losses from falling yields and falling prices. By choosing this insurance, the Colphers have made themselves eligible for disaster aid payments under the Supplemental Assistance Payments program (SURE).

SURE Program: Details and Provisions

The SURE program was implemented in the 2008 Farm Bill legislation. It is designed to assist producers with revenue losses from natural disasters. SURE, along with other disaster aid programs, is intended to eliminate the need for ad hoc disaster assistance. As with all USDA disaster aid programs, only producers with an adjusted gross income of \$500,000 or less are eligible. Total payments are capped at \$100,000 per producer.

SURE payments occur when

a portion of a producer's farm or ranch is in a declared disaster county, in a county adjacent to a declared disaster county, or actual on-farm production is less than 50 percent of expected production.

The SURE program differs from past disaster programs. SURE requires enrollment in federally backed crop insurance or Non-insured Crop Disaster Assistance Program (NAP) for all economically significant crops – contributing at least 5 percent of total farm revenue. The revenue guarantee defined in the crop policy forms the basis for the SURE guarantee. This guarantee cannot exceed 90 percent of the farm or ranch total expected revenue.

Under SURE, farm means all of the crop acreage in all counties a producer planted or intended to be planted for harvest for normal commercial sale or on-farm livestock feeding, including native and improved grassland intended for haying.

A SURE payment is triggered when a producer in a declared disaster county experiences a 10 percent or higher production loss or experiences a 50 percent or higher loss due to a natural disaster. This payment will be 60 percent of the difference of the SURE guarantee and the total farm revenue for the year (see Table 3). Total farm revenue includes the value of all harvested crops, crop insurance, NAP payments, other disaster program payments, 15 percent of direct payments, and all farm program payments.

SURE Payment Calculation

The Colphers experienced a

significant yield loss in their disaster-declared county. In the previous article, we learned their RP-HPE policy provided an indemnity of \$53,906.40 on their irrigated wheat and \$169,550 on their dryland wheat. We will assume, for purposes of the SURE payment calculation, their insurance premium was \$50 per acre for the irrigated wheat and \$18 per acre for the dryland wheat. Assume their total direct payment for the year was \$45,000. Keep in mind there were no marketing loan gains or Average Crop Revenue Election payments. For purposes of this example, the projected insurance price (\$6.95) is the same as the price used to calculate counter-cyclical payments.

The Colpher's SURE guarantee is the lower of either 115 percent of their crop insurance guarantee or 90 percent of their total expected revenue. In this case, it is the 90 percent of expected revenue, or \$466,635.51. These calculations are summarized in Table 1.

Total farm revenue (see Table 2) is calculated using the Colpher's actual yields and acreages. Total bushels is multiplied by the national average price, in this case \$4.50 per bushel, which is determined by the Farm Service Agency. The result is production revenues totaling \$217,350. The crop insurance indemnities (\$223,456.40) and 15 percent of direct payments (\$6,750) are added to this figure, and crop insurance premiums (\$57,000) are subtracted resulting in net farm revenue of \$390,556.40. The SURE payment is 60 percent of the difference of

the SURE guarantee and farm revenue, or \$45,647.47 for Big Country Farms.

Summary

Eligibility for federal disaster aid programs (such as SURE) is an added benefit of using crop insurance in risk management planning. In the Colpher's case, a SURE payment of more than \$45,000 can help defer costs of insurance or help fill the gap between expected revenue and insurance coverage. Producers should remember that SURE coverage is determined in part by the level of insurance coverage selected. The higher the level of coverage, the higher the SURE guarantee, giving a better chance for a SURE payment in the event of a natural disaster.

Table 1. SURE Guarantee Calculation

	Program guarantee	Expected revenue
Irrigated Wheat		
Crop		
Acres	240	240
Adjusted APH or counter-cyclical payment yield	72.3	72.3
Statutory factor	115%	90%
Insurance price (projected)	\$ 6.95	\$ 6.95
Insurance yield election	85%	
Lower number is the guarantee	\$117,882.98	\$ 108,536.76
Dryland Wheat		
Crop		
Acres	2500	2500
Adjusted APH or counter-cyclical payment yield	22.9	22.9
Statutory factor	115%	90%
Insurance price (projected)	\$ 6.95	\$ 6.95
Insurance yield election	85%	
Lower number is the guarantee	\$388,935.03	\$ 358,098.75
TOTAL SURE GUARANTEE		\$ 466,635.51

Table 2. Farm Revenue Calculation

Irrigated Wheat:		
Harvested acres		240
Yield		45
National average price	\$	4.50
Revenue	\$	48,600.00
Dryland Wheat:		
Harvested acres		2500
Yield		15
National average price	\$	4.50
Revenue	\$	168,750.00
(+) Insurance indemnity (irrigated)	\$	53,906.40
(-) Insurance premium (irrigated)	\$	12,000.00
(+) Insurance indemnity (dryland)	\$	169,550.00
(-) Insurance premium	\$	45,000.00
(+) 15% of direct payments	\$	6,750.00
(+) Marketing loan benefit	\$	-
(+) ACRE payment	\$	-
(=) TOTAL FARM REVENUE	\$	390,556.40

Table 3. SURE Payment Calculation

Statutory factor	X	(SURE guarantee - total farm revenue)	=	SURE payment
60%	X	\$ 466,635.51 - \$390,556.40	=	\$ 45,647.47

James Sedman is a consultant to the Department of Agricultural and Applied Economics in the University of Wyoming College of Agriculture and Natural Resources, and John Hewlett is a farm and ranch management specialist in the department. Hewlett may be reached at (307) 766-2166 or hewlett@uwyo.edu.

Rain gardens filter sediments, help recharge available water

By Scott Hininger

Rain gardens – also called barrow ditches and settling ponds – are increasingly popular with homeowners and municipalities and are mandatory across the nation for many communities.

They are man-made depressions that catch storm water runoff from sidewalks, parking lots, roads, and roofs and have some type of vegetation planted in them. The principle is to use vegetation to slow water down so sediment settles out and allows water to infiltrate into the soil. They also filter chemical pollutants. Once water enters the soil, it can be used by plants or to help recharge aquifers. The process can eventually provide late summer streamflow in some cases, which benefits the riparian area's plants and animals.

This technique has been used in agriculture for many years to help reduce soil, fertilizer, and chemical runoff from entering water systems.



Picture: USDA / National Resources Conservation Service

Now, communities are being more aggressive in using these rain gardens to catch runoff water before entering streams.

Some of the changes could be as simple as directing water into these rain garden areas (see photo) instead of down the streets; sloping sidewalks toward grass areas; and constructing parking lots to direct water toward planting areas. The water can then benefit the plants, and most of the excess water is allowed to infiltrate into the ground.

Soil factors need to be consid-

ered when constructing such devices. These include the soil type, whether or not there are areas of the soil that needs to be permeable, and if there is a high percentage of clay (this needs to be amended or replaced to allow better permeability).

Products have been developed to help water penetrate into the ground versus allowing it to run off a hard-surface area. They include permeable concrete sidewalks and asphalt. These specialty products sometimes need some additional engineering to withstand heavy traf-

fic. Pavers can be used for sidewalks or parking areas. Another product is a plastic grate system that can be placed down and filled with recycled glass, gravel, or sod. The grate system keeps material from moving and offers some structural support. The sod areas offer better structural support for vehicles to drive over, particularly when wet. These sod areas can be managed just like a lawn but offer more uses.

Specific plants for these areas depend on location, climate, and personal aesthetics. Plant selection is more complicated and design concerns come in as to how much water the area could potentially receive and how long the water could stand in the area. These questions will determine plant selection and the design of the rain garden area.

Research is studying adding materials to soils to absorb or hold chemicals, such as activated charcoal, and some new products such as bio-char (developed from organic matter such as poultry waste and better at absorbing chemicals than charcoal). Most of us who have had aquariums know activated charcoal removes unwanted chemicals from the water.

So, if interested in cleaning up our surface waters and adding water back to our dry soils, think about installing rain gardens or directing rainwater to vegetative areas first before it enters a stream.

Scott Hininger is the University of Wyoming Cooperative Extension Service educator in Sheridan County. He can be reached at (307) 647-2980 or at shininger@sheridancounty.com.