

## Big Horn County sugar beet growers look to manage production risk – Part III

By James Sedman and John Hewlett

We explained in previous articles, how Big Horn County sugar beet producers Ken and Rich Riff used multi-peril crop insurance (MPCI) to insure against production losses on their 200 acres of sugar beets.

The Riffs experienced a dry spring and summer requiring re-planting and resulted in a low yield of 12 tons per acre. In addition to an insurance indemnity, the Riffs are eligible for a payment under the Supplemental Revenue Assistance Payments program (SURE). (Note: this article assumes SURE will be renewed by the farm bill under consideration by Congress.)

### SURE Program Overview

Participation in SURE requires enrollment in federally backed crop insurance or Non-insured Crop Disaster Assistance Program (NAP) for all economically significant crops, defined as contributing at least 5 percent of total farm revenue.

The revenue guarantee defined in the crop policy forms the basis for the SURE guarantee, which

cannot exceed 90 percent of the total expected farm revenue or 115 percent of their crop insurance guarantee (whichever is lower).

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-greater 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.

Total farm revenue includes all crop values, crop insurance and NAP payments, other disaster program payments, 15 percent of direct payments, and all farm program payments.

### SURE Calculation

Because the Riffs experienced a yield loss in excess of 50 percent of their APH, they qualify for SURE.

For purposes of analysis, we will assume only sugar beet revenue and no other crops. We will also assume 15 percent of their direct FSA payments equals \$2,000.

The total SURE guarantee is determined by their crop insurance guarantee (85 percent of 25 tons/acre) times 115 percent. The total expected revenue for the farm is the crop insurance guarantee at a 100-percent coverage level times the established price minus deductions for prevented planting.

Actual revenue is calculated using the national average price times the actual yield. Crop insurance indemnity payments minus premium costs, 15 percent of direct payments, and other government payments are added for total farm revenue of \$217,721.

The SURE payment is calculated by taking the lesser of 90 percent of the expected revenue or the SURE guarantee of \$250,728.75. This, minus the total farm revenue of \$217,721, results in payment revenue of \$33,007.75 and a SURE payment of \$19,804.65 (or 60 percent of the payment revenue). The calculation process is shown in Table 1.

Table 1. SURE Payment Calculation

Sugar Beets:	
Crop insurance guarantee/Acre	\$1,090.13
Total crop ins. guarantee	\$218,025
SURE guarantee (115% x above)	\$250,728.75
Expected Revenue	\$290,700
Harvested acres	200
Yield (tons/acre)	12
National avg. price (per ton)	\$51.30
Revenue	\$123,120
Indemnity (\$474.53/ac.)	\$94,906
Replant indemnity	\$7,695
(-) Insurance premium	\$10,000
Subtotal	\$215,721
15% of direct payments	\$2,000.00
Other government payments	0
Total farm revenue	\$217,721
90% revenue cap	\$261,630
OR (lesser of the two)	
Total SURE guarantee	\$250,728.75
SURE payment revenue	\$33,007.75
SURE payment (60%)	\$19,804.65

### For more information

To learn more about Actual Production History-based multi-peril insurance for sugar beets, how it can fit your risk management plan, and how it qualifies producers for potential disaster programs such as the Supplemental Revenue Assistance Payments program (SURE), consult a local crop insurance agent or visit the Risk Management Agency's website at [www.rma.usda.gov](http://www.rma.usda.gov).

For more information on SURE and other disaster aid programs, visit a local Farm Service Agency office or online at [www.fsa.usda.gov](http://www.fsa.usda.gov). For more information on this and other risk management topics on the Web, visit the Western Risk Management library at [riskmgmt.uwagec.org](http://riskmgmt.uwagec.org).

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## Repellents only tool to reduce bluetongue risk in sheep

By Scott Schell

Sheep producers always face many threats to their flocks.

Bluetongue disease occurs infrequently enough in Wyoming that preventative measures can be forgotten during years the disease subsides. The last large outbreak of bluetongue occurred in Wyoming in 2007. The causative agent of bluetongue is a virus in the genus *Orbivirus*, family Reoviridae.

Symptoms can include high fever, excessive salivation, nasal discharge, swelling of the face and tongue, and, in some cases, a bluish coloration of the tongue.

Many species of livestock and wildlife can get the disease from the bite of an infective biting midge.

In Wyoming, the vector species is *Culicoides sonorensis*, an insect less than 1/8-inch long that prefers to blood feed on hoofed animals. However, the severity of the disease varies widely between species. Cattle can get bluetongue but exhibit little in the way of negative symptoms but may have a high level of the virus that persists in their blood. This may spread the virus into uninfected *Culicoides* midges that feed on an infected cow and then feed on other animals.

### Sheep Mortality High

Sheep, on the other hand, can get very sick with bluetongue with 30-percent mortality of infected individuals possible. Wildlife, such as whitetail deer and pronghorn, can also get bluetongue but are much more likely to be infected by a related virus that causes a disease named epizootic hemorrhagic disease, commonly abbreviated EHD. The Milk River Valley in Montana had an outbreak of EHD in late summer last year that was estimated to have killed 90 percent of the deer in the area.

The early spring and hot, dry conditions Wyoming has experienced this year favor the reappearance of bluetongue. These conditions create a lot of mucky edges around receding water holes, which is biting midge larval habitat. Drought also concentrates livestock around fewer water sources in late summer when the biting midge population peaks.

### Live-virus Vaccine Limitations

The larval habitat for the biting midges cannot be treated successfully with insecticides. Vaccines have been developed for many viral diseases, and there are vaccines available for three (10, 11, and 17)



of the four serotypes of bluetongue found in the western USA. Unfortunately, this attenuated live-virus vaccine cannot be given to pregnant animals during the first 100 days of gestation or when the vector biting midges are already actively feeding. This makes for a short window of time suitable for vaccination and, at this time, the vaccine is only available in California.

In Wyoming, the only way to reduce the risk of bluetongue to sheep is with repellents. Long-lasting, insecticidal repellents, properly applied to sheep in the summer, provide economical protection from bluetongue. The repellents work by reducing the number of bites sheep receive from infective midges in the weeks just before the first frost, when the chance of infection is highest.

### Repellents Reduce Biting Midge Feeding

Cooperative research between the former USDA-Agricultural Research Service Arthropod-Borne Animal Diseases Research Laboratory, University of Wyoming, and Montana State University showed that insecticidal repellents, applied as low-volume belly sprays, or via treated ear tags, significantly reduced biting midge feeding.

The insecticidal ear tags provided longer protection but were more expensive to purchase and were slower to work due to the time needed for the insecticide to spread over a sheep's body. The sprays were faster acting, but the protection provided from insect bites was of shorter duration. Pour-on products applied as a belly spray provided speed and duration

of protection intermediate to the other application method. Timely application of these repellents when the flocks return from summer pastures can protect sheep for a few weeks until the first frost kills off the biting midges. Rams on late summer pasture should also be protected with repellents.

### Killed-virus Research

Researchers are testing a killed-virus vaccine that would protect sheep against the common bluetongue serotype and provide both longer term and higher levels of protection than repellents against the disease. However, without a vocal demand for the product from the sheep industry, there is little economic incentive for a vaccine manufacturer to spend time and money on the development and regulatory testing needed to bring it to market.

Until that situation changes, repellents are the only tool we have to protect sheep from bluetongue.

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