



Risk management where federal crop insurance is not available

By James Sedman and John Hewlett

Several years of natural disaster across Wyoming and the West have shown the need to consider all possible risk-management options.

On-going drought affecting water, feed and pasture supplies, fires, severe weather, and other natural disasters are a constant reminder to producers not to leave themselves unprotected.

There are many options for risk management under the Federal Crop Insurance Corporation programs offered by the U.S. Department of Agriculture's (USDA) Risk Management Agency (RMA).

Where federal crop insurance is not available, several other federal programs offer additional risk-management tools. Some are the non-insured crop disaster program, emergency loan and conservation programs, and crop and livestock disaster assistance programs. While these programs may not offer extensive risk coverage when compared to federal crop insurance options, they can be an important means for producers to manage against a catastrophic loss.

NAP Coverage

The Non-Insured Crop Disaster Assistance Program (NAP) is administered through USDA's Farm Service Agency (FSA). This program is intended to give catastrophic coverage for crops and rangeland where coverage is not available through RMA. Crops such as small grains or grass cut for hay are examples. Producers enroll crops for NAP coverage by enrolling all of their applicable crop acreage as a unit. The enrolled acres are then covered against yield losses greater than 50 percent of expected production or prevented planting of at least 35 percent of the acreage.

While this type of coverage is less likely to pay an indemnity than other types of crop insurance, it may provide a welcome payment following a substantial crop loss. Local FSA offices set prices for each crop in addition to any adjustments, such as harvesting expense. NAP coverage must be in place for 30 days before an indemnity can be paid, so producers should plan accordingly.



Emergency Loan and Conservation Programs

If an unexpected, widespread natural disaster occurs in an area, the USDA may provide emergency disaster assistance. An area must be classified as a disaster by either presidential order or by order of the secretary of agriculture. Funds for each disaster program are individually appropriated.

To qualify for an emergency loan, a producer must show at least a 30-percent loss in production. Qualifying producers are allowed to borrow up to 100 percent of the production loss, usually at a low interest rate. These loans must be repaid within seven years. Emergency conservation funds are appropriated for producers who show a need for emergency water conservation measures brought on by drought. For example, livestock producers who lose the ability to graze a pasture due to drought are eligible to receive cost-share funds to help offset their water losses.

This program also has funds appropriated on a yearly basis. Check for its availability.

Livestock and Crop Disaster Assistance Programs

Livestock and crop disaster assistance programs are similar to emergency loan programs in that a disaster declaration is usually necessary.

These programs provide direct assistance to producers who can show losses directly tied to the disaster. It is important to note the programs take

into account the effect of insurance and other program payments per crop. For example, in the case of crop disaster payments, the value of payments received cannot exceed 95 percent of the total expected crop value. Receipt of these payments may also require enrollment in NAP or crop insurance coverage for the two years following receipt.

These federal programs, when used as part of a total risk management plan, can help crop and livestock producers minimize risk due to disasters. These programs should be considered when there are no federal crop insurance options available. To find out more about these programs, visit a local FSA field office or visit the Western Risk Management Library online at <http://agecon.uwyo.edu/riskmgt>.

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

Rising fuel, fertilizer prices impact producers

By Sara Skalsky, Jim Jacobs, and Dale Menkaus

Rising fuel and nitrogen (N) fertilizer prices are having a major impact on ranchers and farmers in Wyoming. What implications does this have for producers in northwest Wyoming's Big Horn Basin regarding N application decisions and profitability of individual crops?

In the Big Horn Basin, malt barley, dry beans, sugar beets, alfalfa, and corn for silage are the major irrigated crops. In analyzing the impact of fuel and N prices on profitability, yield responses to N were estimated to determine the most profitable level of N fertilizer for corn silage, dry beans, malt barley, and sugar beets.

Next, budgets were developed for each of the five crops to determine profit under alternative prices for fuel and N. While all crops are affected by increased fuel and N prices, there is considerable difference in the extent of the impact on profit as shown in Table 1.

When comparing the base budgets for sugar beets and corn silage with the budgets for a \$2 increase per gallon of fuel and a 10-cent-per-pound increase in N, profit is reduced by \$105 and \$86 per acre, respectively. When mak-

ing this same comparison for dry beans, profit is reduced by \$40 per acre compared to the base budget. Rising fuel and N prices impact production expenses of each crop differently because of differences in the number of field operations, amount of N applied, and the crops' response to N.

What about the question of how much N to apply? The estimated yield response functions for corn silage, dry beans, malt barley, and sugar beets are based on N rate studies at the University of Wyoming's Powell Research and Extension (R&E) Center. Using these crop yield responses for N, the estimated N applied for alternative price increases in fuel and N is shown in Table 2.

Of the four crops, the N rate for corn silage was the most responsive to price changes in N. For example, the optimal level of N for corn silage decreased by 76 pounds per acre when the price of N was increased from 40 cents to 50 cents per pound after fuel increased \$1 per gallon. These price increases for fuel and N resulted in profit for corn silage decreasing by nearly 72 percent.

In comparison, the optimal amount of N for dry beans decreased 10 pounds per acre when the price of N was increased from

40 cents to 50 cents per pound after a \$1-per-gallon increase in the price of fuel. The profit for dry beans was decreased by 23 percent for the above price increases in fuel and N.

Based upon the N rate studies at the Powell R&E Center, spreadsheets were developed for each of these four crops to estimate the most profitable level of N to apply. By entering their own crop and N prices along with harvest costs, producers can estimate the most profitable application of N. The sheets can be found at <http://agecon.uwyo.edu/farmmgt/Software/ImpactEconN.xls>.

These results illustrate that impacts of increasing fuel and N prices on individual crops are quite different. This means producers must adjust production practices on individual crops and also evaluate the crops grown when faced with rising fuel and N prices if they are to minimize impacts.

Skalsky earned a master's degree in agricultural economics last year from the Department of Agricultural and Applied Economics in the University of Wyoming's College of Agriculture. Jacobs and Menkaus are professors in the department. Jacobs can be reached at (307) 766-3598 or jjj@uwyo.edu.



Table 1. Profit (per acre) for Alternative Fuel and N Prices

Crop	Alfalfa	Malt barley	Dry beans	Corn silage	Sugar beets
Base Budget	\$ (49.57)	\$ (65.32)	\$ 94.27	\$ 63.79	\$ 247.70
Fuel & N Prices					
\$1 increase/gal & \$0.40 N/lb	\$ (65.88)	\$ (73.64)	\$ 77.59	\$ 34.33	\$ 207.90
\$1 increase/gal & \$0.50 N/lb	\$ (68.11)	\$ (82.19)	\$ 59.77	\$ 9.72	\$ 185.77
\$2 increase/gal & \$0.40 N/lb	\$ (82.07)	\$ (85.19)	\$ 72.00	\$ 7.36	\$ 164.13
\$2 increase/gal & \$0.50 N/lb	\$ (84.36)	\$ (92.34)	\$ 54.18	\$ (22.27)	\$ 142.63

(Parentheses indicate loss)

Table 2. Amount of N Applied (lbs/ac) for Alternative Fuel and N Prices

Crop	Alfalfa	Malt barley	Dry beans	Corn silage	Sugar beets
Base Budget	40	120	60	200	220
Fuel & N Prices:					
\$1 increase/gal & \$0.40 N/lb	40	92	48	193	202
\$1 increase/gal & \$0.50 N/lb	40	71	38	117	191
\$2 increase/gal & \$0.40 N/lb	40	90	46	180	201
\$2 increase/gal & \$0.50 N/lb	40	69	36	88	189

