



Assessing and mitigating legal risks in agriculture

Owning and operating your own business is a risky endeavor, and agriculture is no exception. In fact, few businesses face as many different risks as production agriculture.

While these risks can be mitigated, extensive financial planning with solid management and hard work are also required.

Legal risks tend to be less easily defined and even less easily addressed. A typical producer can list several potential legal risks faced, although many lack strategies to adequately address them. Putting off planning for legal risks may be easy but can be extremely costly and even business-threatening if not dealt with before they become problems.

Planning Is Key

Managing potential legal risks can be better handled with adequate planning and preparation. Sit down

with the ranch or farm manager, employees, or spouse and outline the most pressing legal risks. More people involved in this step may help in the flow and quantity of ideas.

Try to separate risks into categories. For example, a producer might separate risks into areas such as day-to-day operations, business transactions, property management, environmental concerns, family/estate planning, and employee management.

Try to list specific problems that fall into these general areas. For example, under property management, a producer might list such potential problems as hazards to visitors, trespassing issues, or dangerous livestock.

Environmental concerns could be such issues as petroleum spills or

tanks, manure runoff, nitrate problems, or improper pesticide use.

With a list of potential problems in hand, the operator can begin working toward resolving these issues. In addition, the manager may want to take the process a step further by developing a legal risk strengths, weaknesses, opportunities, and threats (SWOT) analysis to help identify areas to concentrate on first.

Fix What You Can First

After listing and categorizing sources of legal risks, prioritize which problems or weaknesses can be easily corrected. For example, remove any dangerous-looking junk piles on the property. Put priority on problems considered a legal threat (from the SWOT analysis).

Things easily overlooked as part of the farmstead or ranch may



represent a hazard to the wrong visitor or trespasser. Cleanup fuel or chemical spills, keep dangerous livestock away from the public or locked in safe pens, and put away and lockup equipment at night.

Keep in mind the sources of legal risk, which are easiest to address,

may not be the same as the sources of greatest threat to the operation. Consider which sources of legal risk may require professional help. Several types of key professionals are available to assist agricultural producers address specific legal problems or to mitigate potential problems.

For more information about this and other risk management topics on the Web, consult the Western Risk Management Library at <http://agecon.uwyo.edu/risk-mgt>.

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.



Don't just hay it, graze it, too!

Grazing available alfalfa after the first hard freeze is a way to extend the grazing season.

This can also significantly reduce the chances of bloat from alfalfa. Dormant-season grazing or winter grazing of alfalfa can also promote weight gain on animals and provide an integrated pest management plan.

Studies show grazing of alfalfa during winter can reduce alfalfa weevil eggs by 60 percent and help gain control over weeds. Rodent population may also decrease due to less winter cover.

Concerns about trampling damage to the crown and soil compaction may be unfounded. Research at the University of California, Davis, showed no change in soil bulk or alfalfa stand density, and current varieties of alfalfa show tolerance to grazing.

Several management options can help producers use the available forage alfalfa offers to the winter grazing system. Grazing should occur as soon as possible after the first killing frost. This helps maximize quantity and quality of forage before shattering and leaching losses occur. To help decrease the chance of bloat, leaves should be brown before grazing. Leave a stubble height 3 inches or more – this helps catch snow, decrease winter kill, and decrease available cover for troublesome rodents.

High stocking density for short periods of time will increase available nutrients before shattering and leaching occurs. The idea is to remove the forage quickly before the quality of the forage decreases.

Some producers may want a longer grazing period. A lower stocking density will be required to help manage the amount of stubble left. If grazing continues into the spring, make sure to remove livestock before the alfalfa starts growing.

Proper management can increase the many benefits of winter grazing alfalfa. Keep the swather and baler in the shop, and turn out the livestock for this extension of the winter grazing period.

Ryan Rapp is a University of Wyoming Cooperative Extension Service educator serving Converse, Natrona, and Niobrara counties. He can be reached at (307) 358-2417 or rapp@uwyo.edu.

Producers can manage for potential nitrates in their livestock forage

As fall progresses, many operations are moving cows off summer pastures and taking advantage of low-cost forages such as crop residues, annual forages, and regrowth. Depending upon the forage and/or harvested feed, nitrate levels may need to be checked.

While high nitrate levels can cause problems, we can reduce the concern and risk by testing nitrate levels and managing feeds accordingly.

Nitrate Susceptible Forages

In most cases, forages of most concern are drought-stressed, warm-season annual forages such as sorghum/sudan "cane" hays and millet hays. Weed species such as kochia, lambsquarter, sunflowers, and pigweed can also accumulate nitrates, so emergency feed resources should be closely watched. Finally, under stressful conditions, additional crops such as corn, wheat, oats, and barley can also accumulate nitrates. These plant nitrates are generally located in the lower third of the stalk. Raising the cutter bar when swathing or reducing grazing pressure so animals are not forced to graze the lower portion of the stalk will help reduce nitrate concerns.

Nitrate Testing

When testing forages for nitrate levels, pay close attention to how nitrate levels are reported. Depending on the lab, levels may be described as nitrate (NO_3), nitrate nitrogen ($\text{NO}_3\text{-N}$), or potassium nitrate (KNO_3).

General nitrate recommendations are that nitrate (NO_3) levels of 6,000 parts per million (ppm), 1 percent KNO_3 , and 1,380 ppm

$\text{NO}_3\text{-N}$ or less are generally safe.

Nitrate levels of 6,000 to 9,000 ppm (1 to 1.5 percent KNO_3 and 1,380 to 2,070 ppm $\text{NO}_3\text{-N}$) are potentially toxic and should be fed with caution.

Nitrate levels over 9,000 ppm (1.5 percent KNO_3 and 2,070 ppm $\text{NO}_3\text{-N}$) are extremely dangerous, and forage must be diluted and blended with other feeds.

When testing hay for nitrates, be sure to sample at least 10 bales, as there is considerable variation in nitrate levels from bale to bale. It is generally safer to feed susceptible forages to non-pregnant animals, and remember that nitrates remain in the plant no matter how long hay is stored.

Feeding Recommendations

Manage accordingly once the nitrate level of the forage is determined. The goal is to keep the overall ration nitrate level below 6,000 ppm nitrate. This may mean blending or mixing hays. When feeding nitrate-susceptible forages, the safest method is to tub grind and blend with low-nitrate hay.

Introduce high-nitrate forages gradually, as cattle have a limited adaptation to higher nitrate feeds. Gradually introducing the feed will reduce the risk of having problems, but it definitely does not eliminate them. Make sure the overall ration is balanced. Providing adequate energy (small amounts of supplemental grain) will also reduce the risk of nitrate problems.

If forced to feed bales of high-nitrate forages, most recommendations are to introduce the

high-nitrate feed slowly and provide some of both the high nitrate and safe hay each day. There is still the risk that some cows will eat only the high nitrate hay. For example, dominant cows may push the thin or timid cows away from the better hay, forcing them to eat only the high-nitrate forage.

It is important to manage feeding closely, especially during severe weather. If cattle go without feed for a day, they may go back and pick through the coarse stalks from previous feedings. Those remaining coarse stalks are where most of the nitrate is located, increasing the risk of nitrate problems.

Finally, be aware of all sources of nitrates. Some stock water sources can be high in nitrates, adding to the risk. Also, poor water sources may reduce the herd's water consumption, also adding to the problem. Contact the Wyoming Department of Agriculture's analytical laboratory in Laramie at (307) 742-2984 or any certified commercial lab for proper sampling procedures.

While there are risks associated with feeding high-nitrate feeds, weather conditions, hay availability and hay prices may limit any other alternatives. Following a few basic guidelines and managing the cattle closely will definitely reduce the risk of nitrate problems.

Steve Paisley is a University of Wyoming Cooperative Extension Service beef cattle specialist and an assistant professor in the Department of Animal Science. He can be reached at (307) 760-1561 or spaisley@uwyo.edu.