In recent years, livestock production practices have come to the forefront of public scrutiny because of the perception of having high potential to impact neighboring communities and the general public. Environmental and health concerns associated with winter feeding areas and livestock production include the following:

- Concentration of livestock in feeding or confinement areas for extended periods may lead to localized accumulation of manure and excessive nutrients. This can result in the potential for nutrients and micro-organisms (bacteria and parasites) to run off into adjacent surface waters.

- Manure can contain bacteria such as E-Coli, including the 0157:H7 strain that causes human diarrhea, fever, vomiting, kidney failure and sometimes death. It can also contain Cryptosporidium and Giardia parasites that can cause serious gastrointestinal sickness, diarrhea and weight loss in both humans and animals.

- Wildlife and fish habitat can be adversely impacted by high livestock densities, trampling of stream banks, and runoff into surface waters.

A sustainable wintering system provides the necessities of livestock production — food, water and shelter — in a way that balances production efficiencies, profitability, and environmental stewardship. The ideal wintering system should be feasible, promote herd health, and environmentally sustainable.

**Production Benefits of a Sustainable Program**

- Costs associated with spreading and distribution of manure will be greatly reduced.

- Livestock will be more comfortable in an environment where they are not stressed. The result will be less animal health problems and better performance.

- Cost of hauling feed will be reduced when you use on-pasture sources such as stockpiled forage and rake bunched hay.

- Manure provides major soil building benefits, and when animals are allowed to use marginal land at appropriate rates, manure can lead to higher productivity.

**Strategies for Maintaining a Sustainable Wintering Site**

Consider utilizing more of your land base. If you increase the size of the wintering area and provide more land to utilize the manure, the likelihood of accumulation is less while the benefits to growing forage is greater. Remember that animal density, available land base, and length of time on a particular area go hand in hand. Vegetation cover growing over the entire wintering area the following summer is a good indicator that livestock and manure distribution was adequate.

Remove and spread manure build-ups. This often includes manure from bedding, watering, feeding and other high-use areas.

Consider a system that keeps animals moving. Moving livestock frequently is ideal but rarely feasible. Once or twice a winter is much better than no movement at all. Even rotating between wintering locations annually will help manage manure build-up and can help to prevent repeated heavy utilization of any one area. Portable or permanent fencing can be
be used to control and direct feeding, control animal distribution and density, encourage better field rotation, protect sensitive areas, and enhance manure distribution. Electric fence technology has greatly improved over the years and is easily used year round. If you can’t move the site, consider moving bedding and feeding areas as often as possible, in order to spread manure and retain vegetation cover.

Consider a different approach to winter feeding. It would be difficult for me to be prescriptive here because each ranching operation is unique. However, you may consider utilizing a program that takes the animals to the feed, and not the feed to the animals. This might involve stockpiled (standing or rake bunched) forage early in the winter, followed by supplemental bale feeding on pasture. Consider storing a portion of your feed supplies in key areas throughout your land base where they can be accessed and fed on different feeding grounds than traditionally used. You’ll help spread manure and retain vegetative cover, plus there are potential savings on labor, fuel and equipment use.

Look into watering options. You’ll be surprised at the innovations out there, at their cost, and how they can make your wintering site more portable. A reliable water supply is essential — especially if you choose to take advantage of a greater land base. New technology can eliminate the need for electricity to keep water troughs from freezing or remote pastures, you can utilize new solar, wind-powered, self starting, or nose pumps.

Create buffers around sensitive areas. Permanent vegetation around water bodies will help to protect them.

There is a wide variety of sources of information available for many of the topics discussed here. Please contact me for additional information or questions.

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