



Establishing Winter Feeding Areas for Grazing

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Opportunities in the beef industry today are not as available as in the past. Today decisions have to be made and management practices have to be considered that are often thought of as out of the norm. Now is the time to think outside the box and search for those ways to cut feed and fuel cost, increase the value of your calves (or sustain the value of those calves), just so you can get excited about planning for the breeding season next year. Grass is the cheapest feed resource producers have, so finding ways to either lengthen the grazing season or provide more opportunities to graze at a lower cost will substantially reduce those expenses that impact the profitability of a beef cow enterprise.

Winter feeding areas are common on every beef cow/calf operation in the northern U.S. and are often an underutilized resource. Once cattle are turned out on pasture in the spring, these winter feeding areas are often abandoned for the rest of the growing season. The size and scope of a feeding area will vary from operation to operation ranging from small sized paddocks to sizeable pastures. Depending on the size, stocking rate and length of the feeding period, these areas may cause a concern for the environment. Winter feeding areas located in environmentally sensitive areas and those that allow accumulation of manure to occur have the potential for manure contaminated run-off to discharge into waters of the state. This article will focus on management practices that minimize formation of manure packs. Not only will these recommended management practices keep waters of the state clean, but

can also provide producers with additional grazing on areas that are not typically grazed.

There are two recommendations producers should consider: 1) if you winter cattle out on sacrificial pastures where feeding areas can be rotated within the pasture, consider renovating those pastures each spring for grazing, or 2) if you winter cattle in smaller confined areas where manure pack typically forms, consider moving your winter feeding area to a sacrificial pasture that can be renovated each spring for grazing.

Why is it important to consider utilizing larger paddocks or pastures for winter feeding? Manure pack may form when there is a high concentration of livestock in a concentrated area for any length of time. Often times the distribution of manure in a winter feeding area is uneven and underutilized. Too much accumulation of manure in one area increases the area and thickness of solids covering the existing plants, smothering them and greatly reducing opportunities for new seeds to germinate. The smothering itself, along with the microbial growth and metabolism, may reduce oxygen concentrations below needed for plant growth and survivability (and is exacerbated by wet soil conditions). The end result is more desirable plant species no longer survive, which promotes growth of undesirable species such as curled dock, lambsquarter, thistle, etc. due to high soil nitrate concentrations.

The idea of using larger paddocks or pastures for winter

feeding areas is to allow for rotation of a feeding site throughout the pasture at a frequency that does not allow development of a manure pack. This practice eliminates having to haul the manure from the feeding area out to designated pastures. Utilizing pasture land for winter feeding offers several advantages:

- Less manure build-up in a confined area.
- Distribution of manure across the pasture.
- Recycling nutrients back into the pasture.
- Health problems are minimized.
- Opportunity for reducing production cost.

Winter feeding areas develop a buildup of natural nutrients from livestock that are needed for plant establishment, growth and development. That's why utilizing sacrificial areas for winter feeding can provide a great opportunity for additional summer grazing with the potential to reduce the need for fertilizer. Determining the renovation method to use and the forage specie to plant will have a big impact on forage growth and production in those winter feeding areas. Forage species best suited for seeding in winter feeding areas should have rapid germination, high seedling vigor, and able to compete with weeds. Annual species are likely better suited to seeding conditions on winter feeding areas than perennials, germinating and developing a competitive canopy faster and having a greater potential of choking out weeds. This also has the potential to reduce or eliminate herbicidal treatment for weed control. Annual seed is typically less expensive than perennial seed, and perennial forages usually don't survive heavy animal traffic during the winter.

While there are many annual species to choose from, annual ryegrass (25-30 lbs/acre) has established well on winter feeding areas at the North Central Research and Outreach Center in Grand Rapids. Other advantages of using cool-season annuals is that it can provide multiple grazing cycles throughout the summer and grows well into the fall. Warm-season annuals, such as sorghum-sudangrass (seeding rate depends on variety and method of seeding, 5-35 lbs/acre) also germinate and develop a competitive canopy quickly and can provide additional forage during the summer slump. Producers desiring to try establishing perennial forages should consider red clover (5-7 lbs/acre) or orchardgrass (8-12 lbs/acre), among the most vigorous of perennial forage species.

Another consideration is seedbed preparation and seeding method. There is more potential for stand establishment failure than on traditional forage seedbeds, so inputs should be kept to a minimum. Interseeding, or broadcast seeding followed by a light disking or harrowing to achieve seed/soil contact are two potential methods that require less input than conventional seeding (with heavy tillage). These methods would also help distribute manure more evenly, breaking up many of the larger pats. Remember, seeding should be done early in the growing season (after cattle are removed) to try and stay ahead of the weeds, unless a warm-season annual is considered, then soil temperatures need to be warmer (65-70° F) before seeding.

For more information on cow/calf management, visit the Beef Team website at www.extension.umn.edu/beef/.