

Managing Pasture Feeding Areas

With increasing forage and hay costs in Iowa, producers look to low-cost rations.

by Iowa Beef Center staff

Due to the increased production of corn coproducts and the increasing costs of forage and hay in Iowa, there is a greater interest in developing low-cost beef cow rations. Plus, beef producers are exploring methods to deliver these diets to cow-calf pairs or pregnant cows not only in the winter, but also during the growing season.

Delivering this feed might entail supplementing cattle grazing pastures to extend production or placing cattle in sacrifice paddocks and feeding all of their requirements while other paddocks are allowed to recover. Properly managing these feeding systems is critical to the maintenance of forage stands and protecting water quality.

Drylot management during the grazing season

Producers are recommended to comply with solid settling regulations from the Department of Natural Resources (DNR) if the lot does not remain vegetative.

Feeding to cow requirements on sacrifice paddocks

Suggested rations are provided at www.iowabeefcenter.org.

Providing 0.2 acres per cow-calf pair is a common stocking rate for sacrifice feeding areas, but weather variation may require adjustments. Plan to rotate to an additional sacrifice area if you are feeding for more than 45 days or if excess rain creates excessive damage to the paddock.

Systems with large herds might require sorted groups, with younger, older and

thinner cows with higher-energy requirements being managed separately. Multiple sacrifice paddocks might be required on more extensive systems and for longer feeding periods.

Locate sacrifice paddocks in locations with easy access for feed delivery and not on highly sloped fields; rock might be required to ensure access and to limit long-term damage.

Provide adequate "feeding" space for good access to feed. For bunk feeding, allow 26-30 inches (in.) of feeder space for once-a-day or every-other-day feeding for a 1,300-pound (lb.) cow. If roughage is self-fed, provide 14 in. of feeder space.

Sacrifice acres must remain vegetated. Try to use sites with a good fescue sod or similar sod-forming grass.

Orchard grass and legume-based vegetation will degrade rapidly under sacrifice paddock management.

Select sacrifice areas that can be easily reseeded or renovated without significant erosion.

If feeding areas are not managed to maintain vegetation, they are considered to be feedlots and will require solid settling as required by DNR regulations.

To minimize the risk of contamination of surface water, locate feeding areas at least 200 feet (ft.) from streams and bodies of water. Develop site-specific planned feeding to reduce runoff, and plan to adjust feeding areas during the season. Also, locate mineral and water at least 200 ft. from the streams and bodies of water.

Limit feed waste as much as possible by utilizing bale feeders, bunks, tires, etc.

Clean manure from feeding areas as soon

as possible; prepare seedbed and renovate any damaged areas, including feed delivery ruts. Consider the use of annuals to use nutrients and produce forage. Annual crops and seeding rates are provided in "Short-Term and Supplemental Forages," on page 184.

Consider using the same feeding areas annually and create "heavy-use area" protection, or rotate sites to different locations each year or during the growing season.

Benefits of these recommendations can

minimize health problems and water-quality concerns, plus reduce the cost of pasture renovation.

Cattle traffic patterns and bare areas need to be monitored; feeding areas, mineral feeders and stock tank locations may need to be adjusted to alter paths.

Shade should be provided in sacrifice areas, especially if feeding cows during hot summer months. Select a sacrifice paddock with trees that provide shade and, preferably, are distributed throughout the paddock.

You may choose to

return your cattle to the grazing system when adequate forage growth is present. This grass will be extended longer if calves are weaned prior to removing cows from the feedlot or sacrifice paddock.

It might be cost effective to feed the dry cows longer, allowing more grass to stockpile for fall-saved feed.

Supplementation on pasture

Continue the same pasture management strategies you use without supplementation. Continued rotations will reduce negative effects on grass stands from feeding.

Cattle can be fed daily or every other day with good results.

With large herds, feed system selection is critical to ensure adequate access by all animals. Limited roughage added to the concentrate mix might ensure more uniform consumption; roughage also may reduce the rate of passage and enhance grass substitution.

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all cattle are consuming feed; during periods when adequate forage is available, cattle may not maintain the predicted intake of the supplement mix.

If possible, feed in bunks or tires:

- ▶ If feeding in the same location for several days, move the feeding area often enough to allow the vegetation to regenerate.
- ▶ Provide adequate feeding space — 26-

30 in. of feeder space per 1,300-lb. cow for once-a-day or every-other-day feeding. Allow a minimum of 13-14 in. of feeder space for self-fed roughage systems.

- ▶ Keep feeding areas 200 ft. away from streams and other bodies of water.
- ▶ If feeding is mechanical, adequate access must be developed.
- ▶ If feeding by hand, the group size may need to be limited to ensure feed access to all cows.

If feeding on the ground:

- ▶ Move to new feeding areas each time cattle are fed.
- ▶ Feed in piles on the ground rather than in a row. This will allow for better access with less waste.
- ▶ Feed waste may be acceptable while feeding on the ground with good weather conditions, but adverse weather might require moving to new feed. Supplementation may need to discontinue during extreme weather conditions.

- Keep feeding areas away from bodies of water.

Calves may be acclimated to feed if supplement is offered to pairs prior to weaning. Calves should be weaned sometime during the feeding period. Forage removal will decrease dramatically with lower feed requirements of cows after weaning and without calf grass consumption.



References:

- MF-2662: *Managing stable fly production at pasture feeding sites*, K-State University.
- MF-2673: *How feeding site mud and temperature affect animal performance*, K-State University.
- MF-2753: *Winter feeding sites and calf scours*, K-State University.
- J. of An. Sc. 2005. 83:1673-1679: *Concentrations of fecal bacteria and nutrients and soil surrounding round-bale feeding sites.*
- UCCE Fact Sheet No. 20: *Will a water trough reduce the amount of time hay-fed livestock spend in the stream?*

- Farm*A*Syst North Carolina: *Grazing Livestock and Water Quality*

Editor's Note: Iowa State University's Iowa Beef Center first published this series of fact sheets titled "Cows & Plows" in October 2007. The articles evaluated the management and economics of alternative feed and grazing systems in a time of skyrocketing land values and rental rates, soaring grain prices, and high feed and forage costs. While exact costs represented in the series may differ from today's even higher prices, the derived principles remain pertinent, if not more so.