Ridin' Herd

► by **Rick Rasby,** *beef specialist, University of Nebraska*

An alternative to an expensive summer

The calls continue to come in asking about the feasibility of drylotting beef cows. Drylotting cow-calf pairs seems like a lot of work. In addition, cows belong on pasture in the spring and summer. One of the unique characteristics of cattle is they have the ability to convert forage to protein.

Reason for question

There are a couple of reasons for the questions. Pasture costs continue to increase even in this time of financial uncertainty. There are reports that pasture agreements are going for $26-$28 per animal unit month (AUM) for a 5.5-month grazing period. That's $31.20-$33.60 for a 1,200-pound (lb.) cow.

With these figures, pasture costs alone range from $171.60 to $184.80 for the 1,200-lb. cow. Add on transportation, mineral/salt, and fuel and labor costs associated with checking cows and the bill per 1,200-lb. cow and her calf quickly approaches $200. So much for the spring/summer grazing phase being a cheap part of total feed costs.

Fig. 1: Northern Nebraska pasture rates, $ per cow-calf pair, 1986-2008

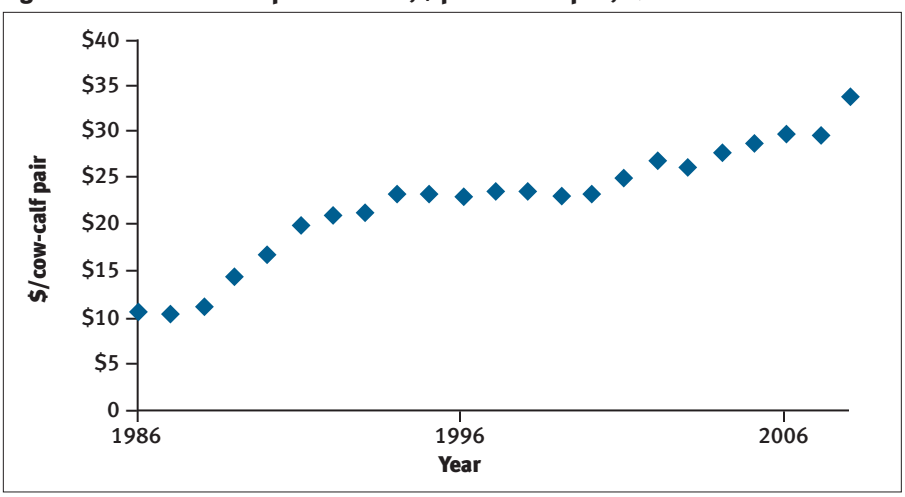

Table 1: Example diets for a 1,200-lb. cow in drylot, pounds per head per day as is

Ingredient	Diet No. 1	Diet No. 2	Diet No. 3
Prairie hay, lb.	7.0	9.0	—
Alfalfa, lb.	7.0	—	—
Whole corn, lb.	11.0	14.0	—
Supplement, lb.	—	1.0	—
Dry distillers' grains, lb.	—	—	8.0
Low-quality forage, lb.	—	—	22.0
Mineral, oz.	3.0	3.0	3.0

Table 2: Example diets for a 1,200-lb. lactating beef cow in drylot with a calf at 3-4 months of age, pounds per head per day as is

Ingredient	Diet No. 1	Diet No. 2	Diet No. 3
Prairie hay, lb.	7.0	9.0	—
Alfalfa, lb.	7.0	—	—
Whole corn, lb.	14.0	17.0	—
Supplement, lb.	—	1.0	—
Dry distillers' grains, lb.	—	—	11.0
Low-quality forage, lb.	—	—	23.0
Mineral, oz.	3.0	3.0	3.0

Also, because of the soft cattle market, some producers think "running age" cows will continue to decrease in price, and it may be a good time to add on a few more cows that have some years left in them, yet they don't have the pasture to add a few more cows.

Pasture costs

Each year, Bruce Johnson conducts a survey of Nebraska farmers, ranchers and landowners. It is titled the "Nebraska Farm Real Estate Market Development Survey." The results of his survey can be found in a publication titled *Cornhusker Economics* and is usually in one of the March issues. At this writing, the March 2009 issue has not been published. You can find this publication on the web at *www.agecon.unl.edu/Cornhuskereconomics.html.*

Johnson categorizes the survey information into eight districts. The majority of the Sandhills of Nebraska are located in the "North" district. The information is not reported in AUMs, but rather dollars per cow-calf pair, and cows will typically weigh between 1,100 and 1,300 lb.

Fig. 1 shows the rental rates for the type of cow described above from 1986 to 2008. The average rental rate in 1986 was $10.50; the average was $33.65 in 2008.

Drylotting beef cows

Drylotting beef cows is not a new concept for beef producers. Vern Anderson of North Dakota State University's Carrington Research Station has researched drylotting beef cows and has a nice publication that can be accessed via the web at *www.ag.ndsu.edu/pubs/beef.html.* Some of the advantages can include:

- ►less investment in land;
- ►small-scale cow-calf operators can increase their cow numbers without buying or renting additional land;
- ►diets can more closely meet the cow's nutrient needs as they change throughout the production cycle;
- ►drought is not a concern;
- ►easier to gather and treat animals that are sick or injured;
- ►easier to implement an artificial insemination (AI) program; and
- ►calves are basically bunk-broke as they are accustomed to eating out of a bunk.

Some disadvantages are:

- ►more labor and equipment are needed;
- ►cows need closer supervision;
- ►herd health program needs to be well-designed and implemented; and
- ►if cows are naturally mated in a drylot, calves need access to a place that they

can get away from the riding/breeding activities.

Interestingly, data suggest that performance of calves and cows is similar whether they are drylotted or managed on pasture.

Some producers who drylot cows have cool-season grass pastures but no warm-season pastures to go to when the summer temperatures increase and the cool-season grasses go dormant. These producers have the opportunity to conduct the majority of the breeding season using bulls completed before cows have to be drylotted. This helps with the challenge of trying to breed cows in a drylot situation, although breeding may need to be finished up in the drylot.

Feeding considerations

Pen size and lot space can vary depending on soil type and drainage. A general recommendation is 500 to 800 square feet (sq. ft.) per pair. Plan on between 28 and 36 inches (in.) of bunk space per cow, depending on cow weight.

If you have a mix of young and old cows, it would be ideal to have separate pens for these groups. If separate pens are not possible, then hedge toward the higher number in regard to bunk space per cow.

Diets for drylotted cows usually contain a lot of forage and, therefore, are bulky. Deep feedbunks will help limit waste. The calf, as it gets older, will also come to the bunk to eat, and diets need to be adjusted.

There are many ways to go about designing diets for pairs in a drylot. Cheap, or less expensive feeds are needed to make this a profitable enterprise. Baled cornstalk residue, CRP (crop residue program) hay and straw can work to stretch higher-quality forages such as alfalfa. Depending on the price, corn may or may not fit into the diets for drylotted cows.

Alternatives to corn, especially in the summer, are corn byproducts. Usually distillers' grains are cheaper in the summer because it is a time when the number of cattle in the feedlot is low. Also, distillers' grains (regular and modified) and gluten feed can be stored in bunkers or ag bags. The following web site contains information on storage of grain byproducts: *http://beef.unl.edu/byproducts.shtml.*

If you feed distillers' grains, no more than one-third of the diet on a dry-matter (DM) basis likely needs to be distillers'. Distillers' and gluten feed are high in phosphorus (P), so no supplemental phosphorus is needed to meet the dry and lactating females' needs.

There is likely a need to add calcium (Ca) to the diet. Mix the diet uniformly, pay attention to sulfur content, and make sure there is plenty of bunk space so all cows get their share. Example diets are in Tables 1 and 2. Diet No. 2 in Tables 1 and 2 contains high amounts of grain, and cattle need to be adapted to these diets.

As always, you will need to push the pencil to determine what feeds are economical and if this type of enterprise is feasible for you to consider.

Final thoughts

Drylotting beef cows may be an alternative to expensive grass and a way to expand the cow herd on a limited forage base. It would be important to check with your Department of Environmental Quality to determine if permits are needed for this type of confined animal feeding operation (CAFO).

E-MAIL: rrasby@unlnotes.unl.edu

Editor's Note: *"Ridin' Herd" is a monthly column written by Rick Rasby, professor of animal science at the University of Nebraska. The column focuses on beef nutrition and its effects on performance and profitability.*