

The Ranch Hand

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We Need Your Help!

Please send questions,
comments or ideas for future
newsletter topics to
Carl.Dahlen@ndsu.edu or
call (701) 231-5588.

Cover photo by Radu Carcoana, NDSU

NDSU
Extension Service
North Dakota State University

Dear Ranch Hand Subscribers,

From cool weather to extreme heat and humidity, North Dakota has seen extremes in 2011. During the past few weeks, we have seen reports of feedlot cattle, calves and mature cows succumbing to extreme heat stress. Producers who lost cattle are encouraged to contact the U.S. Department of Agriculture's Farm Service Agency within 30 days of the loss to determine if they are eligible for financial compensation for the deaths.

With weaning time right around the corner, now is the time to concentrate on a marketing plan for the animals that will be sold this fall. This issue includes a midsummer market outlook and discusses the opportunity some producers may have to identify and cull nonpregnant cows before the markets become saturated in November.

A brief article describes a free manure nutrient testing and consultation program that NDSU nutrient management specialists are offering. Consider this opportunity when cleaning pens and winter lots in the coming months.

Several more resources are available for producers looking for feed options for cattle when they come off pasture. The presentations given at our coproduct storage workshops held in late June are available online at www.ag.ndsu.edu/cattledocs. In addition, our Research Corner article focuses on options for feeding barley and distillers grain to backgrounding and feedlot cattle.

For additional questions on the material covered in this newsletter or any other concerns on your operation, contact your county, area or state Extension personnel. We look forward to serving you!

Sincerely,



Carl Dahlen, Ph.D., Editor
NDSU Extension Beef Cattle Specialist



Charlie Stoltenow, NDSU

Midsummer Cattle Market Outlook

Tim Petry, NDSU Livestock Marketing Economist

Most market classes of cattle will set record annual highs in 2011. Currently, feeder cattle and cull cow prices are at record highs for this time of the year.

Extreme weather conditions in the U.S. have been affecting the cattle market, both from a supply and demand and short- and long-term basis. Cool, wet weather in parts of the country and extreme drought with burn bans, especially in the southern Plains, adversely impacted spring/early summer beef demand, particularly for grilling. The domestic economy also remains stagnant with historically high unemployment continuing.

On the other hand, export demand for beef has been strong. Beef exports totaled more than 1 billion pounds during January-May, the most ever for these months. For the first five months of 2011, beef exports were up 27 percent and imports were down 16.5 percent, compared with January-May 2010.

Feeder cattle prices are high enough to stimulate beef cow herd rebuilding, with beef replacement heifers up more than 12 percent in North Dakota and 19 percent in Montana on Jan. 1. However drought now stretches from California to Pennsylvania, with the worst hit areas in the Southwest and Southeast. The drought fully encompasses Louisiana, New Mexico, Oklahoma and Texas. Cattle liquidation in those areas will trump any beef herd expansion and will mean continued tight supplies of feeder cattle and beef for several more years. That will be supportive to cattle prices.

For fall calf prices, the ultimate size of the corn crop and ensuing corn prices remains the wild card. Normal seasonal price patterns show yearlings off grass usually peaking in late August/early September. Fall calf prices usually continue to decline from current levels, when very few are being sold, to lower prices in October/November, when many are marketed. Those seasonal patterns are expected again this year but at higher levels than last year unless corn prices skyrocket.

Keep in mind that a wide range in prices for the same weight and grade of calves at the same market again will be the case this fall due to the many market factors that affect value in the eyes of buyers. Now would be an excellent time to visit with the market where you sell calves. See what management and marketing factors you can implement to assure your calves sell at the top rather than near the bottom of the price range. With price ranges of near \$20 per hundredweight (cwt) likely, an improved marketing strategy that results in \$9 per cwt more for a 550-pound calf yields an extra \$50 per head.



Consider Early Pregnancy Checking

Carl Dahlen, NDSU Extension Beef Cattle Specialist

Currently, less than 20 percent of beef producers in the United States perform a pregnancy check in their beef herds. Winter feed costs represent a great portion (60 to 70 percent) of the expense associated with maintaining a beef cow. Significant savings can occur by identifying and culling nonpregnant females prior to winter feeding.

Historical cull-cow markets reach a low point in November, which coincides with the time most producers would wean calves and pregnancy check cows. The average cull-cow market price for the last six years (2005 to 2010) during the third week of August, September, October and November are listed below.

Table 1. Cull-cow Prices

Prices are averages taken the third week of each fall month

Month	Cull-cow Price (2005 to 2010)
August	\$53.85
September	\$52.30
October	\$48.66
November	\$45.57

The price difference between selling in August or November is roughly \$8 per hundredweight (cwt), which equates to a difference of \$108 when selling a 1,350-pound cow. Producers who are able to perform pregnancy exams and subsequently cull open cows during the next several months may realize substantial financial benefits compared with marketing cull cows in November.

However, not all producers have breeding seasons, facilities and the labor force to allow pregnancy exams during the late summer.

Herds with defined breeding seasons are best suited to take advantage of early pregnancy exams. If bulls continuously are run with a cow herd or are being pulled from the pasture the same day as the pregnancy exam, you have no way to determine the true pregnancy status of all the cows.

Cows that become pregnant early in the breeding season will be identified easily in these instances, whereas cows that are called "open" may have been bred recently. These recently bred cows may be carrying an early pregnancy that is simply too young to feel via rectal palpation or to visualize with ultrasound.

To accurately and efficiently conduct pregnancy exams on large groups of cows, the exams should be performed from 26 to 30 days after the last possible breeding if using ultrasound for pregnancy diagnosis, whereas cows should be from for 35 to 40 days after breeding if palpation per rectum is used to determine pregnancy. The following table can serve as a guideline for producers considering early pregnancy detection.

Consider Early Pregnancy Checking
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Consider Early Pregnancy Checking (continued from page 3)

Table 2. Dates when cows are ready to pregnancy check based on bull turnout and breeding season length.

Bull turnout date	Breeding season length, days	Bull removed from pasture	Ready to pregnancy check*	Ready to pregnancy check*
			(ultrasound, 30 days)	(palpation, 40 days)
4/15/11	45	5/30/11	6/29/11	7/9/11
Start Calving	60	6/14/11	7/14/11	7/24/11
1/25/12	85	7/9/11	8/8/11	8/18/11
6/1/11	45	7/16/11	8/15/11	8/25/11
Start Calving	60	7/31/11	8/30/11	9/9/11
3/12/12	85	8/25/11	9/24/11	10/4/11
7/15/11	45	8/29/11	9/28/11	10/8/11
Start Calving	60	9/13/11	10/13/11	10/23/11
4/25/12	85	10/8/11	11/7/11	11/17/11

*Consult with a veterinarian to determine their exact dates; these dates may change \pm 5 days.

Use this table to determine the date, on the right side of the table, that a herd is ready to pregnancy check. Find the bull turnout date and breeding season length that most closely represents the herd in question. Herds calving in mid to late January would have a bull turnout or artificial insemination date around April 15. If a 45-day breeding season is used, this herd would have been ready to pregnancy check with ultrasound around June 29, and with palpation per rectum, on July 9. However, a herd that calves toward the end of April (July turnout) and has an 85-day breeding season will not be ready to pregnancy check until the first or second week in November.

Thus, herds that calve in January through March or even late April that have a short breeding season can take advantage of early pregnancy checking to market cull cows prior to the historic market downturn of November.

Following these guidelines, with proficient expertise and good fences, pregnancy detection should be very close to 100 percent accurate. All cows that are nonpregnant should be identified at the time of the exam. However, a small portion of cows that are called pregnant during an early pregnancy exam will have fetal loss naturally prior to calving (the majority of this loss occurs by 60 days post-breeding). This fetal loss occurs whether or not producers chose to perform early pregnancy checking.

In herds that have thin cows, limited pasture or limited forage availability, removing open cows early may allow the remaining pregnant cows more access to feed resources.



Sufficient labor to gather and work cattle and good handling facilities make pregnancy determination less stressful on both the cattle and the people working. As with all activity involving cattle during summer months, be mindful of weather conditions and avoid working cattle in extreme heat.

Some producers can take advantage of market conditions to capitalize on the benefits of early pregnancy detection. Others, however, will have to decide whether to pregnancy check in November or wait until spring to market open cows. We'll have more on the financial component of pregnancy checking in a future issue.



Photos by Carl Dahlen, NDSU

NDSU Provides Manure Fertility Sampling Assistance

Chris Augustin, NDSU Nutrient Management Specialist, Carrington Research Extension Center, Carrington, N.D.
Teresa Dvorak, NDSU Nutrient Management Specialist, Dickinson Research Extension Center, Dickinson, N.D.

With fall harvest approaching, producers soon will be applying livestock manure as fertilizer for next year's field crops. Before applying manure to fields, producers should test it for nutrients to ensure proper application rates.

At a request from producers, NDSU nutrient management specialist Chris Augustin and NDSU Extension livestock nutrient management specialist Teresa Dvorak will go to farms and sample livestock manures for nutrients at no cost to the producers.

The nutrient management specialists also want their farm visit to be an educational opportunity for producers.

"We will teach the producer how to sample manure properly and how to determine agronomic manure application rates," Augustin says.

Published manure nutrient values can be used for planning, but manure needs to be sampled to verify its fertility.

"On one hand, you can overapply nutrients, which might cause an adverse effect to the environment," Dvorak says. "On the other hand, you also might shortchange yourself the fertility of the manure, resulting in reduced crop yields."

In addition to helping producers this year, Dvorak and Augustin hope the data they collect will help producers in the future. They plan to use the data to create a publication that covers nutrients found in North Dakota manures. Cooperating producers will remain anonymous.

"We want 100 samples each in the fall and spring," Augustin says. "This project has funding for three years."

Dvorak and Augustin plan to sample various manures types from livestock on varying diets and from different storage methods.

"The book values we have been using for nutrient management plans are from other areas of the U.S.," Augustin says. "We believe that North Dakota producers like North Dakota numbers, and this is one project that will provide that information."

For more information or to enroll in this program, contact Dvorak at (701) 483-2348 or Augustin at (701) 652-2951.

Feeding Barley in Combination With Distillers Grains in Growing and Finishing Diets Research in Progress

Vern Anderson, Ph.D., P.A.S.; Animal Scientist, Carrington Research Extension Center, Carrington, N.D.

North Dakota cattle feeders rely on corn as the primary energy source in feedlot rations; however, the current price of corn encourages consideration of more economical feeds. Barley is an alternative that often is very competitively priced in North Dakota.

Barley starch and protein ferment rapidly in the rumen. Fast-growing steers should benefit from the addition of distillers grain, which is a source of bypass (rumen undegradable) protein. In addition to this ethanol coproduct often being the lowest-cost protein source, it provides added fat, resulting in greater nutrient density and digestible fiber to stabilize the rumen.

Recent trials at the Carrington Research Extension Center evaluated increasing levels of distillers grain in barley-based diets for growing rations and finishing diets.

In the growing study, weaned steer calves (162 head) were fed 60 percent concentrate diets (57 megacalories per pound net energy gain [Mcal/lb NEg]) for 56 days. Dry rolled barley was fed with increasing levels of dry distillers grains (0, 12, 24 and 36 percent of the diet dry matter). Ten or 11 steers were assigned to each pen and four pens assigned to each treatment for statistical replication.

Canola meal was the control protein source, and all the rations included equal amounts of corn silage, chopped oat hay and an ionophore/vitamin/mineral supplement.

Feed intake was greater with any level of distillers grain, which resulted in improved gains from the addition of distillers grain. Gains were equal for all distillers grain levels and averaged 0.32 pounds per day more than the control. Feed efficiency was not affected as the animals that ate more gained more.



Carl Dahlen, NDSU

The protein level increased from 13.8 percent for the control ration to 15.6 percent for the 36 percent distillers grain treatment.

In the finishing study, (85 percent concentrate, 64 Mcal/lb NEg), 130 yearling steers were fed for 87 days in 16 pens with four pen replicates per treatment and eight or nine head per pen. Distillers grain was fed at the same levels (0, 12, 24 and 36 percent of the diet dry matter) as the growing trial but with higher barley levels to support finishing gains.

Feed intake increased significantly for the 24 percent distillers grain treatment, followed by the 36 percent level. Steer gains reflected the same pattern as intake, with the 24 percent steers gaining 4.34 pounds per day, followed by 4.04 pounds for the 35 percent steers, 3.72 pounds for 12 percent and 3.68 pounds for the 0 percent control.

Feed efficiency was the same for all treatments. Carcass traits that responded linearly (as level of distillers grains increased, values for these traits increased) to increasing levels of distillers grain were hot carcass weight, dressing percent, fat thickness, marbling score and USDA Yield Grade. The percentage of USDA Choice carcasses increased from 31 for the control group to 53, 66 and 69 percent, respectively, for the 12, 24 and 36 percent distillers grain treatments.

These two studies strongly support the need for bypass protein in barley-based diets, the value of fat

The Research Corner (continued from page 6)

and potentially the stabilizing impact of digestible fiber. Metabolism studies with fistulated animals are needed to fully understand the effects of distillers grain in barley diets for steers.

The next study in this series as requested by the North Dakota Stockmen's Association Feeder Council is to evaluate combinations of corn and barley in growing and finishing phases. Treatments are reciprocal combinations of corn and barley at 0, 33, 67 and 100 percent, with 24 percent distillers grain as the protein source. The finishing component of this study was started in June 2011 at the Carrington REC.

This series of studies will provide North Dakota cattle feeders with valuable insight into the effects of feedlot diets that do not rely solely on corn as

CRP Land Opened for Emergency Haying, Grazing

The U.S. Department of Agriculture's Farm Service Agency has authorized emergency haying and grazing on land enrolled in the Conservation Reserve Program in five North Dakota counties.

The emergency authorization is for Bottineau, Burke, McHenry, Stutsman and Ward counties. Producers with at least part of their livestock operation in one of these counties may hay CRP land with written authorization from the FSA. Hay must be cut by Aug. 31 and bales must be removed from CRP land before Nov. 15. Grazing is authorized through Sept. 30.

This authorization only includes CRP land in one of the five counties. It also is limited to certain conservation practices and does not include practice CP23 Wetland Restoration land. Only 50 percent of an eligible or contiguous field may be cut for hay.

The annual CRP payment will be reduced by 25 percent for each acre grazed or cut for hay. CRP participants without livestock may lease CRP acreage to eligible livestock producers for no more than the amount of the payment reduction. CRP hay may not be sold under the emergency release.

Livestock producers and CRP participants from eligible counties should contact their local FSA office to obtain written authorization to hay or graze CRP land under this emergency release.

Report Heat-related Deaths

USDA Farm Service Agency

Livestock producers who incur eligible livestock death losses due to the recent extreme heat and other adverse weather events may be eligible for the USDA Farm Service Agency's Livestock Indemnity Program. All correspondence with the FSA regarding livestock loss is strictly confidential.

"Producers who suffered eligible livestock losses due to adverse weather will be required to provide documentation of the livestock lost and documentation of losses due to normal mortality for the calendar year," said Aaron Krauter, FSA state executive director. "FSA staff can provide producers with a list of acceptable loss documentation that includes proof of death, producer records and verifiable inventory documentation."

For livestock losses that occur in calendar year 2011, producers will have until the earlier of 30 days after the livestock loss is apparent or no later than Oct. 31, 2011, to file a notice of loss with the FSA. In addition, producers have until Jan. 30, 2012, to apply for payment.

Adequate documentation must prove the death of eligible livestock occurred as a direct result of an eligible adverse weather event in the calendar year for which benefits are being requested. If adequate, verifiable proof of death documentation is not available, a livestock producer may provide reliable records, along with a verifiable beginning and ending inventory, as proof of death.

Certifications of livestock deaths by third parties who are not affiliated with the farming operation may be accepted only if verifiable or reliable proof of death is not available. Verifiable beginning and ending inventory records also are required with such third-party certifications.

LIP indemnity payments will be based on 75 percent of the fair market value of the livestock as determined by the FSA.

Producers need to contact their local FSA county offices to sign up for LIP. Producers also can learn more about LIP by visiting www.fsa.usda.gov.

Upcoming Events: August–September 2011

Event	Location	Date	Contact Number
Beginning Farmer and Rancher Program; RightRisk	Fort Berthold	Aug. 9	(701) 627-4738
Compost Demonstration Day 2011	Dickinson	Aug. 16	(701) 652-2951
Dickinson REC Beef and Forage Workshop	Manning	Sept. 13	(701) 483-2348
Soil Health Tour	Burleigh County	Sept. 15	(701) 250-4518
North Dakota Stockmen's Association Annual Convention	Bismarck	Sept. 22-24	(701) 223-2522

To get your events included on the Ranch Hand's upcoming events list, email event name, location, date and contact number to Carl.Dahlen@ndsu.edu.

The Ranch Hand

TOP 10

Management strategies to consider in the coming month:

1. Keep records of death loss and submit claims to the Livestock Indemnity Program
2. Obtain authorization before haying/grazing CRP land in eligible counties
3. Plant cover crops on preventive plant acres by mid-August
4. Remove bulls from cow herd after breeding season and arrange pregnancy check
5. Ensure cattle have sufficient access to clean, good-quality drinking water
6. Plan calf-weaning, backgrounding and marketing strategies
7. Take advantage of opportunities to purchase favorably priced alternative feeds
8. Maintain salt and mineral deliveries for cattle on pasture
9. Collect samples from harvested forages and send for analysis
10. Clean/maintain lots and wintering areas and test manure for fall application

More Information

NDSU Extension Service agents or specialists: www.ag.ndsu.nodak.edu/directory/extdir.htm

NDSU Department of Animal Sciences: www.ag.ndsu.edu/ansc/

CattleDocs: www.ag.ndsu.edu/cattledocs

For more information on this and other topics, see www.ag.ndsu.edu

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