

ECONOMICS

State of the 2012 Cattle Industry

by Dan Childs / mdchilds@noble.org



The cattle industry is experiencing both production and market conditions that are unique and uncommon for the industry. Extreme heat and drought

conditions in 2011 caused double digit percentage declines in beef cattle numbers in Texas and Oklahoma. In 2011, there were 660,000 head of beef cows that disappeared from Texas making it the largest single-year decline in history. Oklahoma producers reduced their herds by 288,000, dropping its rank in total beef cows in the U.S. from second to fourth behind Texas, Nebraska and Missouri.

On the other hand, many northern states experienced good growing conditions in 2011, allowing them to increase beef cow numbers. This helped soften the year-over-year decline of total beef cows in the U.S. to 3 percent. The good summer in some of the northern states also allowed them to produce and ship hundreds, if not thousands, of truckloads of surplus hay to the Southern Great Plains. Even at unprecedented high prices, southern producers were glad that hay was available. Even though Mother Nature dealt the Southern Great Plains a harsh summer in 2011, she has provided a



mild winter through January that has helped stretch sparse hay inventories.

Somewhat surprisingly, cattle prices have remained strong despite the large numbers moving through the market. November 2011 prices for all cattle experienced more than a 25 percent increase over November 2010. Lightweight calf prices are at record levels causing "sticker shock" for buyers. Many producers are ask-

ing how high prices can go before consumers start to reduce beef purchases. The Consumer Price Index calculated a 10 percent increase in beef and veal prices from November 2010 to November 2011. Based on preliminary data reported by the University of Missouri, beef demand was up 4 percent in December 2011 compared to December 2010 and up 1 percent for all of 2011. This increase in overall ►

Low-input Heifer Development

by Ryan Reuter / rreuter@noble.org

demand follows three years of declining domestic beef demand. However, preliminary data for the fourth quarter of 2011 indicates that beef exports are expected to be over 10 percent higher than in 2003 (prior to BSE) and about 21 percent higher than in 2010. The weak U.S. dollar has contributed to stronger exports.

Beef production will be impacted for several years by the 2011 drought. The 2012 year-over-year decline in beef cows of 3 percent will result in the smallest calf crop since 1950. Smaller cattle numbers in combination with increased demand both domestically and internationally set the stage for a strengthening of prices. A surprising number in the Jan. 1, 2012, cattle inventory report was a 1 percent increase in beef replacement heifers relative to the previous year. This is an indication that the industry wants to increase herd numbers.

Overall, the future is bright for the cattle industry; however, many challenges persist. First, higher cattle prices typically translate into greater risks, thus making risk management strategies more important for producers. Second, input prices are likely to continue to rise. Managing costs, therefore, will be essential for profit-minded producers. Lastly, government policies can materially affect farming and ranching operations, so it is important that producers become (and remain) politically engaged. Those who engage their political representation and manage production and market risk should prosper in the next few years. ■

This article originally appeared in the Jan. 2011 Ag News and Views newsletter.

The traditional recommendation for developing replacement heifers is to feed them to achieve 65 percent of their mature weight by the beginning of the breeding season. This recommendation was developed decades ago based upon some research that indicated that almost all heifers would attain puberty by 65 percent of mature weight. However, some recent research may call this long held recommendation into question. Researchers from Nebraska (Martin et al., 2008. *Journal of Animal Science* 86, p. 451-459) conducted a very interesting study. These researchers fed crossbred heifers to achieve either 55 percent or 50 percent of their mature weight by breeding season. The heifers were exposed to fertile bulls at a ratio of one bull to 25 heifers. The heavier heifers were exposed to bulls for 45 days, while the lighter heifers were exposed for 60 days. Interestingly, there was no difference in conception rate between these two groups – the conception rate was a very acceptable 88 percent. These data would seem to indicate that a target breeding weight of 65 percent may need to be reconsidered in some situations.

Let's take a look at what a reduced target breeding weight can mean. If we assume that mature weight of an example herd of cows is 1,200 pounds, then our 65 percent target breeding weight would be 780 pounds. If we assume we weaned a 450-pound heifer calf at 210 days, then we need this heifer to gain 330 pounds in the next 200 days. That is 1.65 pounds per day. During the winter, an average daily gain (ADG) this high will likely require good quality pasture or hay and a significant amount of supplement. If we reduced our target to 50 percent, then the required ADG is only 0.75 pounds per day. This gain could likely be achieved by grazing dormant native range with minimal protein supplementation. This low input program would likely reduce expenses and labor requirements. It is also possible that a low input development system would challenge these heifers a little, and the least efficient and least adapted heifers would be eliminated from the herd.

There are a few issues to consider with developing heifers to lighter weights. Obviously, there is a point at which heifers that are too light in weight won't cycle and therefore won't get bred. Secondly, in the Nebraska research, calves born from heifers bred at 50 percent of their mature weight were, on average, seven days younger and 13 pounds lighter than calves born from the 55 percent group. However, the lighter heifers cost an average of \$17 less to develop than the heavier heifers.

Every ranch has a unique set of resources and opportunities. Be sure to put a pencil to the decisions you are making and determine which production practices may pay off in your situation. We may not be ready to recommend that you reduce your heifer breeding weight target based upon this one study, but don't get caught in the trap of doing things the same way just because that is the way you've always done them. ■

Forage Management Strategies for 2012

by Chuck Coffey / crcoffey@noble.org



The drought of

2011 will likely have negative impacts on our pastures that could last for years to come. In addition, the more your pastures were stressed

and overgrazed, the longer it will take them to recover. The year 2012 will prove to all of us just how important our grass is to the livestock industry in Oklahoma and Texas. Most producers can easily overcome seasonal or localized drought by feeding hay reserves or buying hay at a reasonable cost, but when drought is regionalized and extended, there is not an easy way to keep production levels high. It is very difficult to sell cows and reduce stocking rates, but our focus needs to be placed on the health of our pastures if we are going to be profitable over the long term. Continued overgrazing will only further degrade the land, causing even more problems in the future.

Some producers received welcome rains in fall 2011 and have seen a tremendous flush of winter annuals. Don't be deceived and think everything is back to normal. While it's certainly nice to have forages to graze, these winter annuals will use much of the soil moisture and nutrients, and reduce their availability for our warm-season forages. In other words, if we don't receive adequate rainfall in late April, May and June, we will find ourselves in the same predicament as last year. I have been encouraging producers to evaluate their historical stocking rates and reduce cow numbers by as much as 50 percent if they haven't already done so.

Here is a list of strategies for you to consider in 2012:



Many pastures in the Southern Great Plains were severely overgrazed during the 2011 drought. To promote forage recovery, producers should maintain conservative stocking rates and practice intensive resource management.

- Keep a complete and current inventory of your resources, such as hay supplies, cattle numbers and forage growth, and how long these will sustain your operation. Know whether or not you have adequate stored moisture and the amount of forage it will grow. You should critically evaluate your moisture situation on May 1 and again on June 1.
- Plan to rest some of your pastures for at least part of the growing season. A previous article I wrote, Management Guidelines Can Help Improve Pasture Condition, Optimize Forage Utilization (www.noble.org/Ag/Forage/ImprovePasture), should prove helpful.
- Take full advantage of winter annuals. You might consider increasing stock density by combining cows into one herd or using electric fencing to subdivide pastures – especially from March to May.
- Be prepared to control weeds through stock density or herbicides.

Start scouting pastures in early April, and know what your target weed species are and what they look like.

- Continually monitor rainfall and forage growth throughout the growing season, and be prepared to adjust stocking rates accordingly or purchase hay.
- If you are going to need hay, secure a source early if you are not willing to reduce your stocking rate.
- Soil-test any pasture you might consider fertilizing. We still have many producers who call us for fertilizer recommendations without current soil test results.

Finally, keep your eyes open and your finger on the trigger in 2012, and stay ahead of the game as much as possible. Do not stick your head in the sand hoping everything will be okay. Have a plan and don't be afraid to make tough decisions. A wrong decision is often better than no decision at all. ■

Junior Beef Program Results

Winners of the Jr. Beef program will be announced.

6:30 p.m.-8 p.m.

April 5, 2012

Southern Oklahoma
Technology Center

No Registration Fee



Grazing Workshop

Participants will learn about planned grazing management of introduced pastures.

9 a.m.-3 p.m.

April 17, 2012

Craig Watson Ranch
2957 Elliott Road
Sherman, Texas

Registration Fee: \$20 (includes lunch)



Texoma Cattlemen's Conference: Factoring Drought into the Management Equation

New for 2012, the Texoma Cattlemen's Conference will address issues important to Oklahoma and Texas ranchers.

This first edition of the conference will focus on pasture and herd management following drought. Experts from Texas AgriLife Extension and the Noble Foundation will speak on a variety of topics including pasture recovery, preemptive forage planning, managing the breeding herd following drought, increasing pregnancy rates, the economics of reduced stocking rates versus summer feeding and the economics of replacement females.

9 a.m.-3:30 p.m.

April 14, 2012

Ardmore Convention Center

Registration Fee: \$35 (includes lunch)

Micro-irrigation Seminar

Topics will include pros and cons of micro-irrigation, water source options, system design considerations and irrigation scheduling.

6:30 p.m.-8:30 p.m.

April 19, 2012

Noble Foundation
Kruse Auditorium

No Registration Fee



Basic AG Field Day

Participants will learn about orchard management, water resource development, pond management, beekeeping, direct marketing and agritourism. Limited to 50 participants.

9 a.m.-2 p.m.

April 20, 2012

Henrietta Creek Orchard
14255 Old Denton Road
Roanoke, Texas

Registration Fee: \$10 (includes lunch)



For more information or to register, visit www.noble.org/AgEvents, or call Tracy Cumbie at 580.224.6292. Preregistration is requested.

Basic Cattle School, Parts 1 and 2

In Part 1, participants will learn cattle basics such as industry terminology, herd health, reproduction and bull evaluation. Handling and nutrition demonstrations will be performed.

In Part 2, participants will meet at Red River Livestock Auction to learn about sale procedures, cattle shrinkage, marketing options and value-added programs.

Part 1

8:30 a.m.-5 p.m.
April 24, 2012
Noble Foundation
Oswalt Road Ranch
18414 Dixon Road
Marietta, Okla.
Registration Fee:
\$20 (includes lunch)

Part 2

7:30 a.m.-1 p.m.
May 9, 2012
Red River Livestock
Auction
I-35, Exit 24
Overbrook, Okla.
Registration Fee:
\$20 (includes lunch)



Basic AG Field Day and Expo

This annual event will feature a variety of topics for the novice farmer or rancher. Sessions will cover rainwater harvesting, weed control, pond construction, fish stocking, equine health, raised bed gardening and organic beef production.

9 a.m.-6 p.m.
April 27, 2012
Myers Park and Event Center,
McKinney, Texas
No Registration Fee



Pond Management Workshop

From designing a pond to stocking fish to keeping the water quality healthy, this workshop will cover it all. This event will include both classroom instruction and a pond tour.

1 p.m.-7:30 p.m.
June 12, 2012
Noble Foundation Pavilion
Registration Fee: \$20 (includes
dinner and an informational CD)



Basic AG Pond Management Seminar

Participants will learn about managing existing fisheries; identifying and stocking fish; managing aquatic plants; understanding water quality; and watershed management.

9 a.m.-12 p.m.
May 8, 2012
OSU-OKC Agriculture Resource Center
400 N. Portland
Oklahoma City
No Registration Fee



Pecan Grafting Seminar

Participants will learn about the importance of grafting pecans, and various grafting methods will be demonstrated, such as four-flip graft, bark graft and budding.

9:30 a.m.-11:30 a.m.
May 10, 2012
Noble Foundation Pavilion
No Registration Fee



Forage Fencing, Grazing and Establishment Workshop

Learn about switchgrass establishment; short-term, high-stock-density grazing; and nutrient management. There will also be a fencing demonstration.

9 a.m.-3 p.m.
June 21, 2012
Noble Foundation Pavilion
Registration Fee: \$20
(includes lunch)



Spring Harvest Management for Rio Grande Turkey

by Russell Stevens / rlstevens@noble.org



The drought and excessive heat of 2011 probably had a significant impact on Rio Grande turkey recruitment (the number of poults that reach juvenile age in

the fall). Many landowners who saw fewer turkeys during the fall of 2011 and winter of 2012 are convinced that the impact was negative.

Weather conditions and predation are the two main factors influencing Rio Grande turkey nesting success and poult survival. Effects from weather and predation can be direct, indirect or interrelated; therefore, complicated and not completely understood. In spring 2011, nesting cover was probably adequate in most locations of south-central Oklahoma and north-central Texas because of fairly normal rainfall. However, the subsequent summer's drought and heat produced minimal vegetative growth, negatively affecting food for poults and hens, and perhaps fall recruitment. Landowners who witnessed poor fall recruitment are likely wondering whether they should harvest turkeys in spring 2012. Following are a few considerations.

If numbers are low, consider not harvesting turkeys. Adult male and female natural mortality rates are moderate, ranging from 38 to 46 percent. The odds are good that turkeys alive during the winter will contribute to reproductive success in the spring or at least survive until next year. Eliminating or limiting hunting mortality, which can be additive to natural mortality, is a management practice landowners can control to improve reproductive effort in the spring. Turkeys can always be "shot" with a camera.



Photo by Steve Swigert

Limit spring harvest to males only, even though bearded females are legal to hunt in Oklahoma and Texas. Loss of females (including those with beards) due to spring hunting mortality or mortality in the fall due to either sex harvest regulations has been shown to negatively affect population growth. Make sure all hunters can identify the difference between females and males.

Consider shortening the hunting season by allowing hunting for males only after the majority of females are no longer visiting males. Landowners, including those leasing their property to other hunters, have this option. This is usually well after the onset of gobbling in the spring and when the majority of females are incubating. Also, consider only hunting until noon to protect nesting females from harvest during their afternoon foraging activity. The downside to late season hunting is males may be less responsive to calls, especially during years when temperatures are warmer than normal.

Male mortality from spring hunting is widely assumed to be additive to natural mortality. Evidence suggests harvesting 25 to 30 percent of available males in the spring still allows for population growth and provides good hunting, but may shift the age structure of the male population to juvenile males. The proportion of males in a population will decline if too many are killed through hunting. If most males in the population are juveniles, reproduction might be hampered because not all juvenile males are sexually mature. Landowners observing low adult male numbers should consider reducing harvest rates to improve hunting quality and possibly future reproduction.

Spring turkey harvest regulations designed to remove a portion of males after most breeding has taken place have proven sustainable in Oklahoma and Texas. Landowners observing fewer "gobblers" on their property can implement a more conservative approach to harvest than state regulations allow. Managing harvest and habitat is the key to enjoying turkeys on your property. ■

Is Fertilizing Native Grass Profitable?

by Eddie Funderburg / erfunderburg@noble.org



A high percentage of the grazing land in our area is native grass. Most ranchers do not fertilize native grass because it is widely thought that it is unprofit-

able to do so. In fact, one of the appealing characteristics of native grass systems is that they do relatively well with minimal inputs.

We conducted a study examining the effects of fertilizing native grass on yield and profitability in 2008-2009, with

locations in Carter and Pottawatomie counties, Oklahoma.

Soils at both locations did not need lime or potash, but soil tests showed very low phosphorus. Five fertilizer rates were replicated three times at each location:

0-0-0, 50-0-0, 50-50-0, 100-0-0 and 100-50-0 per acre. We mimicked a system where the grass was cut for hay in early July and then grazed to a 6-inch stubble height after frost. Forage quality measurements (crude protein and total digestible nutrients) were analyzed for each cutting. Yields and profitability ranking are shown in Table 1.

Fertilizing native grass resulted in large increases in yield. At both locations, 50 pounds of nitrogen per acre yielded the same as 100 pounds of nitrogen per acre. It was essential to apply phosphorus along with the nitrogen to optimize yields on these low phosphorus soils. Fertilizing native grass did not greatly affect crude protein or total digestible nutrient levels in the forage when harvested in the manner we did.

As can be seen in Table 1, all treatments were equally profitable except for 100-0-0 per acre, which was less

We are currently evaluating the test to see if there are carryover effects from the fertilizer treatments. The plots were fertilized in 2008 and 2009, and have not been fertilized since. The plots were harvested in 2010, and the plots that received phosphorus (P) in 2008-09 yielded significantly more than any of the other treatments. The plots were harvested again in 2011 and there were no yield differences in any of the plots, but overall yields were very low due to severe drought. We will continue to harvest the plots each year

until yield differences between plots disappear. If there is a long-term carryover effect of fertilization, it could revise the conclusions about the profitability of fertilizing native grass.

In short, not fertilizing native grass

is probably the correct decision in most instances. It may be advisable to fertilize native grass in certain situations, such as if a rancher needs to increase carrying capacity and only has native grass as a forage base. In these cases, choose the most productive soils and apply 50 pounds of N per acre, plus phosphorus according to soil test results. ■

Table 1. Effect of fertilizer rate on yield and profitability ranking of native grass at two Oklahoma locations (two-year average 2008-09)

Treatment	Location		Profitability Ranking 1 = most profitable 5 = least profitable
	St. Louis, Okla.	Ardmore, Okla.	
0-0-0	2,536 D	1,504 B	1 A
50-0-0	3,674 C	2,213 B	3 A
50-50-0	4,648 AB	3,720 A	4 A
100-0-0	4,014 BC	2,161 B	5 B
100-50-0	5,212 A	4,024 A	2 A

Yields followed by the same letter are not statistically different at the 5 percent level of probability.

profitable than the other fertilizer rates tested. This seems to justify the decisions of most ranchers to not fertilize native grass, since it is usually inadvisable to spend money and increase risk to achieve the same profitability as doing nothing. However, if soil test phosphorus levels were high and no phosphorus was needed, the fertilizer systems are more profitable.

CONTENTS

Page 1

State of the 2012 Cattle Industry

Page 2

Low-input Heifer Development

Page 3

Forage Management Strategies for 2012

Page 4

Upcoming Events

Page 6

Spring Harvest Management for Rio Grande Turkey

Page 7

Is Fertilizing Native Grass Profitable?

EVENTS

Texoma Cattlemen's Conference

Date: April 14, 2012

Location: Ardmore Convention Center

Time: 9 a.m.-3:30 p.m.

Registration Fee: \$35 (includes lunch)

Grazing Workshop

Date: April 17, 2012

Location: Craig Watson Ranch, 2957 Elliott Road, Sherman, Texas

Time: 9 a.m.-3 p.m.

Registration Fee: \$20 (includes lunch)

Micro-irrigation Seminar

Date: April 19, 2012

Location: Noble Foundation Kruse Auditorium, Ardmore, Okla.

Time: 6:30 p.m.-8:30 p.m.

No Registration Fee

For more information or to register, please visit www.noble.org/AgEvents, or call Tracy Cumbie at 580.224.6292. Preregistration is requested.

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