

LIVESTOCK

Feed yard placement weight affects production returns

by Ryan Reuter / rrreuter@noble.org



Stocker cattle

production is a major component of the cattle business in Oklahoma and Texas. Stockers are weaned calves that are typically grazed

on pasture to add 200 to 400 pounds of body weight and are then sold as a "feeder" to someone who puts the calf on feed in a feed yard. Sometimes the stocker operator may retain ownership of his stockers and feed them out himself. Whether the calves are retained by the stocker or sold to a feeder, someone is going to be interested in how those cattle perform in the feed yard and packing plant.

Recently, we (Reuter and Beck, 2013) conducted a thorough review of the scientific studies that have been published, looking for those decisions that a stocker producer makes that will affect finishing and carcass performance. We did not consider things like sex, breed, hide color or genetics because those traits are not affected by the choices a stocker producer would make. We did consider factors such as weight, average daily gain (ADG), forage type, supplementation strategies and implanting. Perhaps surprisingly, there were few examples of stocker



production decisions that affect finishing or carcass performance. One that does affect subsequent performance, however, is body weight at the time of placement on feed.

Feed yard placement weight does impact finishing and carcass performance. However, because cattle

are growing, biological beings, feed yard placement weight is typically confounded with age and previous ADG. In fact, body weight at any point is a mathematical function of age and previous ADG. Age increases every day, and, unless cattle are severely nutrient restricted, ADG is usually ►

positive. Therefore, age, previous ADG and body weight are all related (usually highly correlated), and that makes it difficult to determine which of these factors is most important.

A traditional categorization has developed in which feeders are often called either "calf-feds" or "yearlings." Yearlings are older and usually heavier, while "calf-feds" are younger and typically lighter. When yearlings are placed on feed, they have greater ADG, feed intake and carcass weights than calves, all else being equal.

Calf-feds typically have better feed efficiency, and better marbling and tenderness traits. The magnitude of these differences is variable and difficult to predict.

This relationship can have lots of implications for the beef industry. However, for a stocker, it boils down pretty simply: stocker producers should make decisions and use management strategies that maximize their net return and not worry very much about any residual effects in the feed yard. A pretty good proof of this is that when feeder cattle are sold, either at the sale barn or in the country, there is one trait that primarily determines their value: weight. ■

Reuter, R. R., and P. A. Beck. 2013. Southern Section Interdisciplinary Beef Cattle Symposium: Carryover effects of stocker cattle systems on feedlot performance and carcass characteristics. *J. Anim. Sci.* 91:508-515.

Basic AG Small Farm Field Day

This field day will demonstrate several mechanical and chemical techniques for controlling brush encroachment. Wildlife consultants will discuss the role prescribed fire has on brush control, as well as discuss how different plant species respond to various control methods.

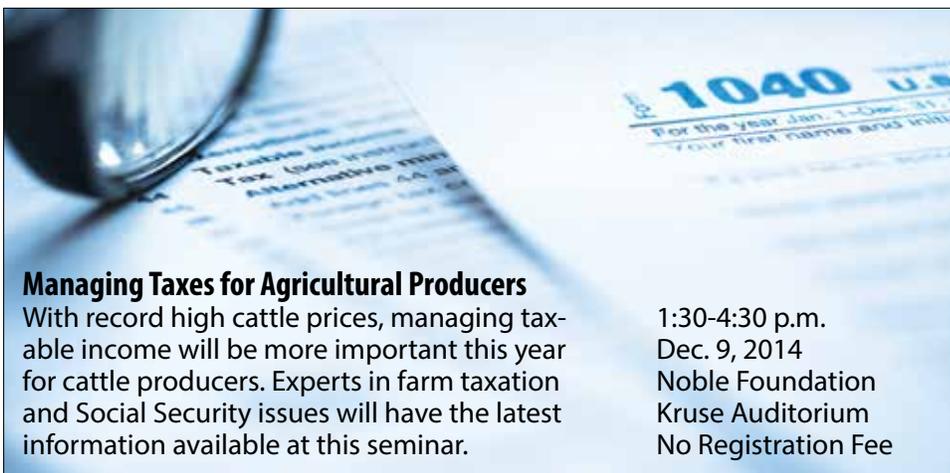
9 a.m.-12 p.m.
Oct. 24, 2014
Noble Foundation McMillan Farm
Ardmore, Oklahoma
No Registration Fee



Managing Taxes for Agricultural Producers

With record high cattle prices, managing taxable income will be more important this year for cattle producers. Experts in farm taxation and Social Security issues will have the latest information available at this seminar.

1:30-4:30 p.m.
Dec. 9, 2014
Noble Foundation
Kruse Auditorium
No Registration Fee



Texoma Cattlemen's Conference

All phases of the cattle industry are experiencing record high markets. Producers will continue to face challenges and opportunities but at a new and higher level. This year's conference will provide insight on how to successfully manage livestock operations during these record markets.

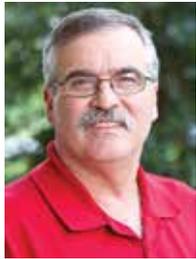
8 a.m.-4 p.m. March 21, 2015
Ardmore Convention Center
Early Registration Fee: \$30 before Jan. 30
Regular Registration Fee: \$40 after Jan. 30



For more information or to register, visit www.noble.org/agevents or call Maggie Scott at 580.224.6375. Preregistration is requested.

Preconditioning adds value to fall calf sales

by Steve Swigert / jsswigert@noble.org



Cow-calf producers with calves to market in the fall of 2014 are going to have some interesting decisions to make. With calf market prices at all-time

highs and feed prices lower than the past three years, are the calves going to be sold at weaning or are they going to be kept until a later date to make additional income?

It is crucial to determine what is best for the calves and what is best for the operation financially. There are several decisions to be made when working through this process.

The first decision is whether to market at weaning or keep the calves longer. If the calves are sold at weaning, income is available immediately and no more labor is needed to take care of the calves. If the labor and facilities are available to wean and precondition calves, assuming the calves have good to superior genetics, additional profits are available in most cases by keeping the calves after weaning.

When selling calves at weaning, the shrink on weaned calves can be significant, often ranging from 4 to 12 percent, depending on the sale and weather conditions. These same calves are discounted from \$10 to

2009-2013 Preconditioning Summary

	Yearly Average				
	2009	2010	2011	2012	2013
Average daily gain	1.79	2.09	2.27	2.55	2.6
Total preconditioning cost per head	\$54	\$70	\$185	\$165	\$118
Preconditioning cost of gain	\$0.57	\$0.64	\$0.97	\$0.93	\$0.73
Final weight	633	637	631	739	760
Out pay weight price per cwt	\$98	\$121	\$140	\$144	\$156
Gross revenue per head	\$618	\$772	\$890	\$1,063	\$1,188
Net margin per head	\$71	\$120	\$124	\$111	\$142

\$12 per hundredweight because they have not been through the weaning process.

Compare this to a +2 percent to -2 percent sale shrink at the end of a 45- to 60-day preconditioning period with no price discount for being a calf. In addition to the lost weight and lower price at weaning, the calves have an opportunity to have a daily gain of 2 to 3 pounds and typically sell at a higher price at the end of a typical 45- to 60-day weaning period in the fall. Considering these factors, the market value of the preconditioned calf is significantly higher.

To optimize the margins through this preconditioning process, it is crucial to keep the cost of gain as low as possible, preferably in the 80- to 90-cents-per-pound range or lower. This level of cost of gain can be achieved by planning ahead for feed, veterinary supplies, and hay or grazing.

By marketing calves at the end of the 45-day preconditioning period, consistently positive margins are achievable, and the margin can be significant in some years. For example, Noble Foundation producers in the Integrity Beef Alliance netted an additional \$142 per calf during the 2013 preconditioning period.

In addition to the marketing opportunities at the end of a preconditioning period, these same calves will continue to perform through a wheat pasture or post preconditioning feeding program. With value of gain ranging from 85 cents per pound to \$1.05 per pound, there are opportunities for increased profits the longer the calves are held. If you need help calculating the cost of gain and value of gain during this time, give the Noble Foundation a call. ■

Seeding guidelines increase winter pasture productivity

by James Locke / jmlocke@noble.org



Seeding small

grain cool-season annuals, like wheat or cereal rye, into perennial warm-season grass pasture, like bermudagrass, has been a

common practice for many years. A few of the benefits of sod-seeding small grain winter pasture include providing high quality forage during the winter months, providing additional forage production during the warm-season grass's dormant season and potentially reducing the need for winter supplementation.

While the benefits are easy to see, producing small grain forage in a warm-season perennial grass sod presents some unique challenges. Since the warm-season grass and the small grain have different best management practices, some compromises are necessary for the production of both.

The first step is managing the warm-season grass prior to planting the small grain forage. The warm-season grass should be grazed, hayed or mowed to a 3-inch height by early September. In most situations, applying a non-selective herbicide before planting will be necessary to chemically "frost" the grass and eliminate any weeds that might be present. Temporarily stopping the warm-season grass growth allows the small grain an opportunity to germinate and become established with

less competition. Herbicide options include 0.25 to 0.5 pounds paraquat per acre or 0.5 to 1.0 pound glyphosate per acre. Note that glyphosate is a systemic herbicide that will translocate to the bermudagrass roots and potentially reduce production the following year. Failure to properly manage the warm-season grass is one of the most common causes of sod-seeding failures.

The next step is selecting the forage species, planting method and seeding rate. Wheat is most commonly used due to its widespread availability and adaptability. Cereal rye is a common choice for sandier soils, or when fall and early winter production is a priority. Rye also fits very well in sod-seeding situations because it matures earlier and is less likely to compete with the warm-season grass in the spring. Availability of cereal rye planting seed can sometimes be a problem. Other options include oats, barley, triticale or mixtures of more than one species. The planting method which results in the most consistent, reliable stands uses a grain drill calibrated to deliver the correct seeding rate and is capable of penetrating the sod. This method ensures a consistent planting depth and good seed-to-soil contact. Seeding rates with a grain drill range from 90 to 120 pounds per acre.

Alternatively, seed can be broadcast. A light disking and running a culti-packer or drag is needed to enhance seed-to-soil contact. Advan-

tages of broadcast planting are the ability to blend seed with fertilizer and faster spreading. Disadvantages are higher seeding rates, lack of depth control, poorer seed-to-soil contact and a higher risk of stand failure. Seeding rates when broadcast planting range from 120 to 150 pounds per acre. Regardless of forage choice or planting method, use high quality, high vigor planting seed since planting into an existing sod is a challenging seedling environment.

Finally, apply lime and fertilizers for your yield goal and as recommended from soil tests. Phosphorus and potassium rates are based on soil test results and should be applied near planting or soon after emergence. If needed, lime should be applied before planting. Nitrogen rates are based on yield goals and should be applied when the forage is needed. If fall or early winter grazing is the priority, apply most or all of the nitrogen near planting or soon after emergence. If spring grazing is the priority, apply starter nitrogen in the fall and the remainder in late winter or early spring.

Care should be taken not to sod-seed more small grain winter pasture than can be utilized. It is important to graze out or remove the winter pasture as hay before it can compete with the warm-season perennial grass during its prime growing season in the spring. If the small grain competes with the warm-season grass, it can significantly reduce its production. ■

Skin cancer threatens agricultural workers

by Ugochukwu Uzoeghelu



Skin cancer is an abnormal, uncontrolled growth of skin cells. It occurs when mutations occur in healthy skin cells, most often due to ultraviolet (UV)

radiation exposure. It can appear as moles, raised bumps, scaly patches or open sores, and, though not always, most often develops on skin exposed to the sun.

There are three basic types of skin cancer: basal cell, squamous cell and melanoma. Basal and squamous cell are typically easy to treat. However, malignant melanoma is more dangerous and involves a more difficult treatment regimen. Most skin cancers can be successfully treated if caught early, so look for areas of skin (lesions) that fail to heal completely within approximately 30 days.

According to the Harvard School of Medicine, melanoma is the fifth most common type of new cancer diagnosis in men and the seventh most common type in women, and rates are steadily increasing. Although risk increases with age, melanoma is now frequently seen in young people. The National Cancer Institute estimates that one in five Americans will develop skin cancer during their lifetime. Survival rates are much higher when skin cancer is detected and treated early, stressing the importance of self-exams and periodic total body exams by a dermatologist.

Skin cancer can affect anyone. However, the following factors may increase a person's risk of developing the disease:

- Excessive sun exposure.
- Fair skin, light-colored eyes, and blond or red hair.
- Numerous freckles.
- History of sunburns.
- Weakened immune system.
- Family or personal history of skin cancer.

The most deadly form of skin cancer is malignant melanoma. Remembering the signs of malignant melanoma is as easy as A, B, C, D, E.

Asymmetry: The sides of the lesion don't match.

Borders: The borders are irregular and jagged.

Color: The colors can include pink, brown, red and black, and are mottled in appearance, not uniform.

Diameter: Anything larger than 6 millimeters (about the size of a pencil eraser) is suspicious.

Elevation: A skin lesion that is elevated, in combination with any other skin cancer sign, is suspicious.

The most common cause of skin cancer is overexposure to UV rays, either from the sun or tanning beds. Be smart this summer; cover up and observe the following guidelines:

- **Be shady:** Wear a wide-brimmed hat. The brim should be at least 4 inches wide. Baseball caps do not protect your ears, nose or neck. Protect your eyes by wearing sunglasses.
- **Lather up:** Wear sunscreen, even on cloudy days.
- **Cover up:** Light-colored, lightweight, long-sleeved shirts and long pants will keep your body cool and protect your skin.

Check yourself regularly for any of the signs mentioned above. Use a mirror to check your back, or have



The signs of malignant melanoma include elevated lesions that have non-matching sides, irregular and jagged borders, mottled appearance and are larger than 6 millimeters.

someone else check it for you. If you notice any warning signs of skin cancer, make an appointment to see your family doctor or dermatologist right away. Early detection and treatment of skin cancers provide a 95 percent success rate. The success rate falls dramatically once the cancer begins to spread.

Agricultural, forestry and fishing workers are all at higher risk for skin cancer due to working long hours outdoors. With the pressures of haying, harvesting and working with livestock, many ranchers and farmers don't place much, if any, importance on preventing skin cancer. But remember, skin cancer is preventable; it can be fatal; and you are at risk. ■

Processing your deer extends the hunt

by Russell Stevens / rlstevens@noble.org



Enjoying the outdoors and the thrill of the hunt are major elements in the excitement of hunting any game species. Considering the game species

most of us hunt, harvesting a deer yields a significantly larger quantity of meat, and putting meat in the freezer is important for many hunters. Yet most deer hunters take their deer to a processor and miss out on an opportunity to extend their hunting experience. Lack of knowledge and temporary storage are probably the most common reasons for this.

The best way to eliminate these obstacles is to simply get started. Have someone with experience show you, or review some of the many available videos and publications explaining equipment needed for skinning, quartering and processing prior to harvesting your deer. Then don't worry about messing up. Any cutting mistakes made while quartering can be addressed later. The key to meat safety is using clean equipment and keeping the carcass and meat clean and cold at all times.

A quartered deer consists of two hindquarters, two shoulders, two backstraps, two tenderloins, two flanks, two sides of ribs and the neck (due to small meat yield, some elect to discard flanks, ribs and neck). Tenderloins and backstraps are boneless pieces of meat, just like beef or pork loins, and are ready to cook after trimming off fat and connective tissue, and cutting to desired proportions. Meat from the shoulders can be kept whole and smoked or boned out. Hindquarters can also be kept whole

and smoked or boned out into roasts, cut into steaks or ground. Trimmed meat and meat from cutting mistakes can be used for grinding or for stew.

Quartered meat can be temporarily stored in a refrigerator with wire racks to allow circulation of air around the meat. Ice chests with block ice in plastic containers can also be used. Boning out meat allows more room for storage. Either method of storage will easily keep meat for three or four days if kept below 40 degrees Fahrenheit, allowing plenty of time to process and package each quarter.

Be prepared by arranging for one of these methods of storage before harvesting a deer.

Processing and packaging meat goes a lot faster if you enlist help from family or friends. Reward them by putting a few steaks on the grill to share after the work is done. The work is easy, and anyone can get the hang of it after one or two deer. So extend your hunt and take satisfaction in the fact that you process your own deer and can handle every step, from taking meat in the field to putting it on your table. ■



After removing the leg from the hindquarter, the femur bone is easily removed.



The remaining meat can easily be separated by muscles for further trimming and packaging. Once all fat and connective tissue have been removed from muscles, they can be left whole to cook, cut into steaks, cubed for stew meat, or ground for sausage or hamburger.

ANNOUNCEMENTS

Photo contest continues to accept entries

by staff writer

The Noble Foundation's 2015 Ranch Management Calendar photo contest is underway. The competition is open to the public, and photos may be submitted through the end of October. Photographers are encouraged to shoot photos throughout the year as we will need images representing all seasons. The winning photos will be published in the Noble Foundation's 2015 calendar.

Contest rules:

- Photos should be of agricultural subjects in either Oklahoma or Texas.
- By submitting this photograph(s), the photographer acknowledges and agrees that the photograph(s) will not be returned, and the photographer grants the Foundation a non-exclusive, irrevocable, perpetual, royalty-free right to publish the photograph in the 2015 Ranch Management Calendar, on the Foundation's website, and in printed materials or through other means of communication and visual media that relate to the Foundation's educational programs, philanthropic activities and overall mission. The photographer further warrants that he/she is the sole owner of all copyright interests in the photograph(s) and has full authority to grant the Foundation the rights referenced herein.
- Digital entries must be high resolution (300 dpi resolution at 9 x 12 inches). Photos from smartphones will not meet this required resolution. Photos need to be submitted in JPG format and be taken on an 8-megapixel or higher resolution camera. Digital entries may be emailed to calendarcontest@noble.org (maximum file size allowed by email is 25 MB).

- Entries may also be mailed as 9- x 12-inch prints or as digital files on a CD or DVD to:

**The Samuel Roberts Noble Foundation
Attention: Calendar Contest
2510 Sam Noble Parkway
Ardmore, OK 73401**

- Please include a calendar contest entry form for all submitted photos. The entry form can be downloaded at www.noble.org/calendar-contest.
- All photos must be horizontally oriented to fit the calendar layout.
- The photo contest period will include any images taken between Nov. 1, 2013, and Oct. 1, 2014.
- All photos must be submitted by midnight Oct. 31, 2014.

Prizes:

- All winning photos will be published in the Noble Foundation's 2015 Ranch Management Calendar.
- The grand prize winning photo will also be placed on the cover of the 2015 calendar, and its photographer will receive a Noble Foundation gift basket that will include pecans and other items.
- The other 11 finalists will receive their choice of one of the Noble Foundation's premium publications: *White-Tailed Deer: Their Foods and Management in the Cross Timbers*; *Pecan Production 101*; *Trees, Shrubs and Woody Vines: A Pictorial Guide*; or *Grasses of the Great Plains: A Pictorial Guide*. ■

2014 Calendar photos:

Cover: Bonnie K. Dredla, Luling, Texas;
2: Cassie Laxson, Stillwater, Oklahoma;
3: Linda Grellner, Konawa, Oklahoma;
and 4: Lloyd Sumner, Ardmore, Oklahoma.



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EVENTS

Pecan 101 Workshop

Time: 9 a.m.-4 p.m.

Date: Sept. 16, 2014

Location: Southern Oklahoma Technology Center

Registration Fee: \$20, includes lunch

White-tailed Deer Management Workshop

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

Date: Sept. 18, 2014

Location: McKenzie Memorial United Methodist Church Annex

1809 S. Donoho, Clarksville, Texas

Registration Fee: \$20, includes lunch

Fall Grazing Workshop

Time: 9 a.m.-4 p.m.

Date: Sept. 25, 2014

Location: Collier Farms, 503 County Road 1876, Chico, Texas 76431

Registration Fee: \$20, includes lunch

For more information or to register, please visit www.noble.org/agevents or call Maggie Scott at 580.224.6375. Preregistration is requested.

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