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**TRENDS IN CALF BREED/TYPE PREMIUMS**

Calf prices were compiled by Certified Angus Beef, LLC at ten auctions, from 1999 through 2012, involving over 300,000 head sold in lots averaging about 20 head. Over that time, calves identified as Angus (compared to non-Angus) have continued to average highest prices and the premium has increased over time. In the fall of 1999, the average difference was \$2.46/cwt; in 2012, it was \$5.30/cwt. Note that “non-Angus” includes all others, which are not valued the same.

Data from Superior Video Auctions classifies

breeding as primarily Angus, black and black white face, English and English cross, English-Continental cross, and cattle with ear. From 2000 to 2012, approximate price/cwt differences among those types decreased as shown in the following table:

Angus calves, and those perceived to be Angus,

generally sell at the top of the market. However, in some markets, studies have shown other types can sell at the top also, especially some types of Angus crosses. Price variation can depend on a number of factors, such as year, region of the country, method of sale, and breed/type classification.

(cab.org; Kansas St. Univ.)

TYPE	2000	2012
Primarily Angus	\$5.50	\$4.50
Black and black whiteface	\$4.00	\$4.00
English and English cross	\$2.00	\$4.00
English-Continental cross	\$2.00	\$2.50
Cattle with ear	base	base

**PERFORMANCE, EFFICIENCY, AND TEMPERAMENT OF HEIFERS EVALUATED DURING GROWING AND AT FIRST CALVING**

A group of 104 weaned heifers (Angus, Brahman, Romosinuano, and all 2-way crosses of the three) were grown in drylot for 70 days. Individual feed consumption was measured

At the beginning and every 14 days, heifers were weighed and scored for chute behavior and chute exit velocity. After the 70-day trial, heifers were placed on pasture until first

calving as three-year-olds. Thirty heifers were either culled during this period or did not calve, leaving 74 heifers to be further evaluated. On a weekly basis, as cows calved, they were placed as a group in drylot.

Feed consumption of cows and their calves was recorded, cows were weighed weekly, scored for Body Condition Score and

temperament every two weeks, milk production was measured by milking machine, ultrasound was used to evaluate fat thickness and ribeye area, and calves were weighed at the start and end of the trial. As growing heifers and again as cows, individuals were divided into low, medium, and high

**Volume 13, Issue 3**  
**August 2013**

Lee County Extension News is a service of Texas A&M AgriLife Extension Service in Lee County.

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Portions of this newsletter are cited from the Texas A&M University Beef Cattle Browsing Newsletter, Dr. Steve Hammack.



Tonya Poncik  
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Family & Consumer Sciences

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## BSE STATUS OF U.S. UPGRADED CONSUMER PREFERENCE FOR GRASS-FED OR GRAIN-FED BEEF

The Scientific Commission of the World Organization for Animal Health (OIE) monitors incidence of bovine spongiform encephalopathy (BSE, so-called “mad-cow disease”).

BSE status of the U.S. has been officially listed as “controlled”. The Commission has recommended this be upgraded to “negligible”, and formal approval is expected in May.

This designation is the same as some of the largest beef exporters, including Argentina, Australia, and Brazil. The status of Canada and Mexico is not expected to change at this point. This upgraded designation should improve U.S. opportunities for exporting beef, or at least provide evidence based on science to counter exclusion of American beef.

(<http://www.oie.int/en/animal-health-in-the-world/official-disease-status/bse/list-of-bse-risk-status/>)

A panel of 410 people, varying in age range, gender, and farm or off-farm background, evaluated samples from grass-fed and grain-fed cattle for tenderness, juiciness, and flavor acceptability.

Low-Choice grade ribeye rolls were used in the study. Age, gender, and background did not affect results. Grain-fed steaks were found to be significantly more tender and juicy and higher in flavor acceptability. However, 24% of panelists preferred grass-fed beef overall.

Based on these results, there appears to be a segment of consumers to which grass-fed beef can be successfully marketed.

(J. Animal Sci 91 E-Suppl. 1:10)

## ALTERNATIVE BEEF PRODUCTION SYSTEMS

Almost all beef production begins with pasture/forage-based cow-calf systems. “Conventional” or “traditional” beef production is usually assumed to involve grain finishing at some point after weaning. So, “alternative” production could be assumed to be anything not involving grain finishing.

An April 2013 34-page USDA report, “Alternative Beef Production Systems: Issues and Implications”, (<http://www.ers.usda.gov/media/1071057/ldpm-218-01.pdf>) compares traditional and alternative systems. This publication summarizes USDA requirements for organic and grass-fed certification. “Natural” is defined by USDA only for product processing methods; a claim of “naturally raised” must adhere to no growth promotants, no antibiotics, and fed no animal by-products. Some highlights of the recent USDA report include:

- alternative systems generally incur higher production costs;
- higher production costs may be offset by higher prices for product;
- grain-fed beef is associated with higher marbling and tenderness but also higher fat;
- higher USDA carcass quality grades can be difficult to reach under alternative systems that do not include grain finishing;
- grass finishing requires long-term access to high-quality forages;
- grass-fed (not finished) beef is similar to that from culled breeding stock/dairy cows,
- it is possible to produce USDA-certified organic beef with grain feeding;
- grass-fed beef has higher levels of omega-3 fatty acids, but the amount of these compounds is very low in beef of any source;
- cholesterol content does not differ in grass-fed or grain-fed beef;
- some consumers associate alternative production systems with greater animal welfare;
- some consumers are willing to pay more for alternatively-produced beef;
- alternatively produced U. S. beef is currently about 3% of total but is increasing;
- systems involving more time on pasture/forage increase greenhouse gas emissions;
- alternative systems may offer economic possibilities under appropriate production and marketing situations.
- about 80% of U. S. beef is from grain-finished cattle; the rest is from culled beef breeding stock and dairy cows;



## EFFICIENCY VS. PRODUCTION AND CARCASS

For six consecutive years, purebred Angus and Charolais steers were evaluated for an average of 120 days on a high concentrate ration. Individual feed consumption was measured. Live weights were taken every 14 days and ultrasound measurements every 28 days. As expected, at the end of the study Charolais had larger rib-eye area, less external fat, and lower marbling.

Efficiency was calculated both as feed conversion (feed:gain) and residual feed intake (RFI). In this study, correlation within the two breeds between the two efficiency measures averaged 0.44 (phenotypic) and 0.60 (genetic). In both breeds, as has been found in many other studies over the years: 1) better feed conversion was genetically and phenotypically associated with higher ADG but; 2) there was essentially no relationship, either



genetically or phenotypically, between RFI and ADG.

Genetic and phenotypic relationships were low in both breeds between either measure of efficiency and carcass traits. An exception was between RFI and fat thickness in Charolais, where more efficient RFI value (numerically lower RFI) was genetically, but not phenotypically, associated with lower fat thickness. This also has been found in some other studies, prompting some question as to whether more efficient RFI genetics could be related to lower fleshing ability in brood females, and possibly lower reproductive efficiency. However, Charolais are inherently leaner than Angus, so the relationship may differ in these breeds between fatness and reproduction in females.

## HORSE SLAUGHTER TO PROCEED AGAIN

On June 28 of this year, the USDA approved a plant in New Mexico to again slaughter horses for human consumption. Additional plants are expected to be approved shortly.

For several years, Congress prohibited funds from being spent for inspection of horse meat. Since inspection is required for meat, this effectively stopped horse slaughter. However, that prohibition was not renewed last year, so USDA-FSIS must again provide inspection for approved facilities.



Various groups against slaughter of horses are expected to quickly demand legal action against the practice. FSIS requirements for horse slaughter can be accessed at <http://www.fsis.usda.gov/horses/6130.1.pdf>.

### PERFORMANCE, EFFICIENCY, AND TEMPERAMENT OF HEIFERS

Continued from Pg 1.

efficiency thirds, based on Residual Feed Intake.

Body weight, ADG, and BCS did not differ among heifer efficiency groups. There was no difference among the three heifer efficiency groups in cow weight, ADG, BCS, efficiency, milk production, fat thickness, or ribeye area.

Correlation of the heifer and cow efficiency groups was only 0.13. There was no effect of temperament score on efficiency, whether scored as heifers or cows.

Based on these findings, immature evaluation of RFI efficiency was a poor estimate of mature RFI efficiency. Also, while poor temperament has many detriments to production and management, RFI efficiency was not one of those detriments in this study.

(J. Animal Sci. 91:2254; Univ. of Florida, USDA-ARS Brooksville, FL)

## SILVERLEAF NIGHTSHADE

Silverleaf nightshade has foliage with gray or silvery appearance, violet, light blue or white flowers, and is 1 to 3 feet tall. Stems are sparsely covered with short yellow thorns. Leaves and stems have a dense silvery covering of hair. Optimum time to spray with a herbicide is during bloom.

Select Herbicide Options:

- Weedmaster
- GrazonNext HL

- Grazon P+D
- Pasturall HL
- Surmount
- Chaparral \*\*
- Cimarron Max \*\*
- Pastora \*\*

\*\* for bermudagrass pastures, will destroy bahiagrass

REMEMBER: The label is the law! Always read the pesticide label before using.



Silverleaf Nightshade  
(*Solanum elaeagnifolium*)

## DROUGHT AND ENVIRONMENTAL EFFECTS ON TREES

Does it appear as though your trees are finally succumbing to a series of environmental and past life history stress factors? This is a very common occurrence that coordinates with this time of year. Daniel Lewis, Staff Forester with the Texas Forestry Service, offers this advice about stress factors.

Some of stress factors may include:

- Drought – repeated drought cycles and sporadic rain events over the last decade. Drought causes many problems including loss of fine feeder roots that pull in moisture and nutrients, dieback of the crown, and increased susceptibility to diseases and insect attack.
- Compaction – compacted soil damages and prevents root development (post oaks are particularly intolerant).
- Root rots – Armillaria and Ganoderma, among other root rots, cause loss of roots and may cause the tree to fall over even when the tree is still carrying green leaves. “Phytophthora cactorum” is also a very common root rot that causes root rot, twig dieback, and bleeding cankers on the trunks.
- Grade changes – Adding or removing soil from around a tree changes that trees ability to undergo gas exchange of its roots and causes root death.
- Trunk and root damage (construction, trenching, hitting the tree or exposed roots with string trimmers and mowers, etc.) – this type of damage opens the

tree for infection from air or soil borne pathogens and causes the death of plant tissue.

- Insect defoliation – repeated defoliation by canker worms, leaf rollers, grasshoppers, katydids, and many more cause the tree to have to put on more leaves which can overly stress the resources of an already stressed tree.
- Oak wilt – while oak wilt is not commonly seen in post oaks, these trees are susceptible. Oak wilt is a vascular fungal pathogen that can spread through open wounds and root grafts between trees.
- Hypoxylon canker – Hypoxylon canker is an opportunistic secondary fungal pathogen that may remain dormant for many years within the bark of healthy trees until such time as environmental stressors, or other factors, reduce a tree’s water content below a certain threshold. At this point this fungus will begin to penetrate into the xylem of the tree finishing them off. This pathogen can usually be seen as strips or patches of bark that slough off the tree revealing fungal material that may be greenish, brownish, black or silvery gray. These trees rapidly decay once this fungus establishes and the tree may fail structurally very quickly. More information is available at: <http://plantclinic.tamu.edu/helpful-factsheets/>. Scroll down and click on the Hypoxylon Canker pages.

Lewis said, “All of these conditions are naturally occurring responses to tree stress except for oak wilt. In most instances, within a yard setting, tree loss can be linked to the activities of man on the landscape; such as trunk damage, over-watering to keep grass alive, inadequate or no watering, grade changes and construction, weed and feed (and other herbicides and chemicals, compaction, etc.)”

“The best course of action is to try to identify and reduce as many stressors as possible from the tree’s environment. You obviously cannot control drought, but many of these factors are within your control. Improper watering within a yard setting is likely one of the most common causes of tree stress. In most yard situations within the Post Oak Savannah, homeowners try to establish a sod forming grass that has high water demands. In order to keep the grass healthy, it is watered frequently and shallowly. Since post oaks in particular are upland species, accustomed to low rainfall and poor soil fertility, the trees are constantly in unfavorable conditions within a yard setting,” Lewis continued.

Trees, in general, need a thorough and widespread soaking of the entire root system (which may extend two to three times the crown spread) about once a month. The roots need to dry out some between soakings or root rots may develop in the anaerobic conditions caused by too much water.

# POND

and Aquatic Weed Management

**2 CEU hours**  
**1 IPM**  
**1 General**



## Dr. Todd Sink

Extension Fisheries Specialist  
Wildlife and Fisheries Sciences

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### September 5

6 pm - 8 pm

Lee County Extension Office  
310 S. Grimes • Giddings

\$12 / person

RSVP to 979-542-2753 by Sept. 4

**TEXAS A&M**  
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**EXTENSION**

**KEETON EHRIG**  
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## Private Applicator Training & Testing

**September 19**

8 am - 5 pm

Lee County Extension office  
310 South Grimes • Giddings

7:30 am — check-in  
8:00 am — training begins  
12 noon — lunch  
1:00 pm — testing begins

**\$60 Registration**

**Class size limited; pre-registration is required.**

### REGISTRATION INCLUDES:

- Study Materials
- Refreshments & Drinks
- Catered Lunch & Dessert

### WHAT TO BRING WITH YOU:

- Photo ID
- #2 pencil
- Calculator  
(*cell phone calculators NOT permitted*)

### STUDY MATERIALS:

- Available prior to class date.

### CLASS SIZE:

- Limited to 30.

*Once training is completed and the test passed, application for license is then made to TDA. Application fee is \$60.*

*Chemicals can not be purchased until applicant receives license from TDA.*

### **CALL TO REGISTER:**

**979.542.2753**

**KEETON EHRIG**

**Lee County Extension Agent**

Agriculture & Natural Resources

310 South Grimes  
Giddings, Texas 78942

lee.agrilife.org



1 CEU hour  
General

# October 24

6 pm - 8 pm

Lincoln Community Center  
Lincoln

\$15/person

RSVP to 979-542-2753; by Oct. 23

# Rainwater *Harvesting*

## Billy Kniffen

Biological and Agricultural Engineering Department

- Harvested rainwater can be saved for later uses in landscaping, gardening, wildlife and pets.
- Capturing rainwater reduces the amount of municipal or well water needed and reduces runoff/erosion.
- Rainwater is best for plants because it is naturally soft, has a pH of about 6 and contains no chemicals.
- Rainwater barrel construction demonstration.

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## WEED CONTROL FOR NEWLY SPRIGGED BERMUDAGRASS

**Vanessa Corriher-Olson, Larry Redmon, and Paul Baumann**

*Extension Forage Specialist, Overton; Extension Forage Specialist and Extension Weed Specialist, College Station*

One of the many challenges producers face when establishing a new stand of bermudagrass is initial weed pressure. Prior to land preparation for establishment of sprigs, it is important to eradicate any unwanted vegetation. Annual weeds may be controlled by thorough tillage; however, perennial weeds should be sprayed with a non-soil active herbicide such as glyphosate (Roundup) several weeks prior to tillage. This will allow re-treatment of any weed escapes prior to establishing bermudagrass. Any soil disturbance by plowing or disking promotes germination of weed seed. The use of a pre-emergence herbicide (applied prior to weed emergence) is one of the best defenses against early season competition with the newly established sprigs. Diuron and 2,4-D + dicamba products are labeled for application immediately after sprigging and can provide effective pre-emergence residual control (Table 1). However, be sure to check the label to ensure your product is labeled for pre-emergent application. Post-emergent herbicide treatments may still be necessary after sprig establishment. Newly established sprigs are more sensitive to herbicides than established stands of bermudagrass, therefore, you should observe treatment timings recommended in Table 2 to avoid injury. Herbicide selection, rate, and growing conditions are critical in preventing injury to sprigs. Always read and follow label instructions for any herbicide/pesticide/insecticide.

**The label is the law.**

**Table 1. Pre-Emergent Herbicides**

<b>Herbicide</b>	<b>Rate/Acre Broadcast</b>
<b>Direx 4L (diuron)</b>	0.8-2.4 quart/acre
<b>Comments:</b> Apply Direx immediately after sprigging and rolling to control annual broadleaves and grasses (up to 4" in height). For control of emerged annual weeds up to 4 inches in height, apply 0.4 to 0.8 quarts per acre. Bermudagrass sprigs should be planted 2-3 inches deep to minimize damage. Emerged bermudagrass at the time of treatment may be temporarily injured. <b>Direx is not labeled for use in established bermudagrass hayfields and pastures.</b>	
<b>Weedmaster (2,4-D &amp; Dicamba)</b>	2 to 4 pints/acre
<b>Comments:</b> Best results will be obtained if Weedmaster is applied 7 to 10 days after planting. Reduced control can be expected if weeds are allowed to reach 1" in height before application.	



**Table 2. Post-Emergent Herbicides**

<b>Herbicide</b>	<b>Rate/Acre Broadcast</b>
<b>Outrider</b> (Sulfosulfuron)	1.33 oz/acre
<b>Comments:</b> Apply Outrider at 1.33 oz/ac to control johnsongrass, yellow and purple nutsedge, and other weeds four weeks after the emergence of the newly established bermudagrass. Addition of non-ionic surfactant at 1-qt/100 gallons is required. A follow-up application of Outrider can be made when sufficient weed regrowth is observed, but no sooner than four weeks after the previous application.	
<b>2,4-D</b> amine/ester	1.0-2.0 quart/acre
<b>Comments:</b> Apply 2,4-D to emerged broadleaf weeds 3-4 inches tall. Use non-volatile amine formulations from late March through September. Do not apply more than 2.0 qt per acre per season. Do not make more than two applications per year. Minimum interval between sequential applications is 30 days.	
<b>PasturAll</b> (2,4-D & Aminopyralid)	1.5- 2 pints/acre
<b>Comments:</b> PasturAll should be applied only after perennial grasses are well established (have developed a good secondary root system and show good vigor).	
<b>Surmount</b> (Picloram & Fluroxypyr)	1.5-6.0 pints/acre
<b>Comments:</b> Apply at 1.5 pt/acre to sprigged bermudagrass once stolons (runners) have reached six inches in length and growing conditions are favorable.	

Produced by the Department of Soil and Crop Sciences  
soilcrop.tamu.edu

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