AS1 - Newsletter

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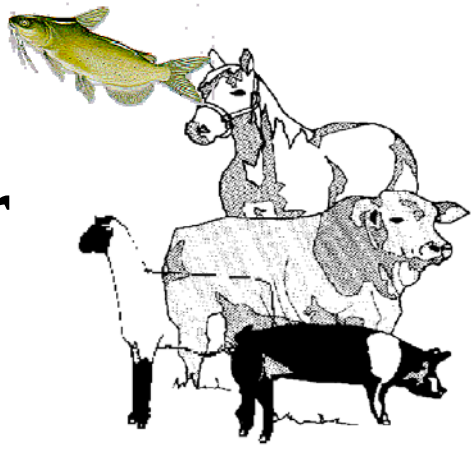


Livestock Newsletter

September/October 2006

http://www.ces.uga.edu/Agriculture/asdsvm/beef-home.html

Please give credit to the author if you use an article in a non-Extension publication and please send a copy of the article to the author. Thank you!

Robert L. Stewart
Extension Coordinator
Animal and Dairy Science Department

LIVESTOCK NEWSLETTER

September/October *AS-1*

Beef Management: Castration

Tim Wilson
Extension Animal Scientist – Beef Cattle

Improving marketability, preventing males from breeding, reducing aggression and improving meat quality are just a few of the reasons producers incorporate castration into their operations. Often cattlemen discuss the premium they receive from selling steers rather than bulls at market. However, the truth is that producers who market their calves as steers rather than bulls are not receiving a premium, but are not being discounted.

Is castration worth it?
A study conducted by Oklahoma State reports that in an evaluation of over 26,000 head of cattle sold in 18 sale barns, bulls were reduced in price by $3.56 and $2.24 per hundred pounds compared to steers during 1997 and 1999 respectively. These reductions could be seen as a 550 pound bull being reduced in price by $20 and $12 when compared to a 550 pound steer. The reduction in price for bulls was presumed lower due to the subsequent decreased performance expected after castration.

Research from Texas A&M University reports that weaned intact bull calves that were shipped in load lots and castrated upon arrival had a 13.5% reduction in daily gain and a 10.3% reduction in season long gain. When the effects of castration were combined with the effects of morbidity, productivity decreased 24.8% compared to steers. Their conclusions from this study indicated that healthy steers were valued at $22 more than healthy bulls and $48 more than morbid bulls.

When to castrate
Castrating calves at a younger age verses at weaning or older has been proven to be less stressful. If possible, producers are encouraged to castrate during the spring or fall to reduce infection and disease. However, some calves are not born in conjunction with these time frames and must be castrated as soon as possible. The earlier a bull is castrated, the sooner he will overcome the stresses of this process and continue to grow.

Weight Gains
Producers who are concerned with weight gains after castration may consider using growth promoting implants. Research from the Georgia, Colorado, Oklahoma and South Dakota have all reported that calves that are implanted with an implant when castration is done at an early age can achieve similar if not better weight gains compared to calves that are castrated at weaning.

Castration can be a useful management tool that can increase the overall profitability of your calf crop. To take full advantage of this tool at the local stock barn, producers may want to sell steer calves in groups and emphasize that they have been castrated and healed. Otherwise, buyers may pay bull calf prices for steers that have been properly managed. If you have any questions regarding castration or any other management practice, please feel free to contact your county extension agent or contact me at (706) 624-1403.

Winter feeding tips

Johnny Rossi

Grouping cows and heifers –
Grouping cattle according to nutritional needs will reduce feed costs and improve performance. Females should be separated into at least two groups: 1) first calf heifers/ replacement heifers/thin cows; and 2) mature cows in a body condition score of 5 or greater. The heifers and thin cows often need 0.5 to 0.75% of body weight of supplement per day to maintain body condition score above a five. Mature cows in a BCS of 5 or greater generally need 0.5% of body weight or less per day. If winter pasture is the supplement of choice, mature cows often require 2 to 3 hours per day of grazing compared with 4 to 6 hours for heifers and thin cows.

Limit hay feeding losses –
The best way to eliminate waste is to store hay under a cover. Expect losses of 20 to 30% for hay that is stored outside for six months prior to feeding. Hay feeding method can greatly reduce hay losses this winter. Feeding hay in rings results in losses of 5 to 6% compared with losses of 10 to 15% when using trailers or rolling out a one day supply. Using rings can save 10 to $15 per cow over a 150 day feeding period.

Forage test –
Testing forages for nutrient content can reduce feed costs by supplementing only the nutrients that are deficient in the forage, maintaining acceptable performance, and planning ahead for purchasing supplements. A nutrient analysis will determine the crude protein, total digestible nutrients and relative forage quality (indicator of digestibility) of hay. These numbers can be used to determine what supplement if any is required. A forage test including nitrates only costs $10 per sample. A lactating cow requires about 11% protein, 58 to 60% TDN, whereas, a dry cow needs only 8% protein and 55% TDN. Your county extension agent can help formulate a balanced ration.

Monitor hay intake-
A rule of thumb to use for hay intake is a dry cow will eat about 1.9 to 2% of body weight in hay daily and a lactating cow will eat about 2.4 to 2.5% of body weight daily. Cows will quickly increase or decrease hay consumption when different quality hays are

fed. A quick drop in consumption is a good indicator that lower quality hay is being fed and supplementation is required.

Monitor body condition –
Cows must be in a body condition score of 5 or greater for high re-breeding rates to occur. Constantly monitor body condition to ensure cows are in the proper body condition at the start of the breeding season. If cows are less than a BCS of 5 at the start of the breeding season, lower pregnancy rates and longer calving intervals are almost certain. Forage testing and BCS go hand-in-hand. Balancing a ration based on a forage test gives an excellent starting point for winter supplementation. Adjust ration if needed to keep BCS at 5 to 6.

Winter pasture grazing-
Winter annual pastures are very high protein highly digestible forages. Limit grazing approximately 3 hours per day will provide about 30% of the nutrients a cow needs each day. A problem with using winter annuals is that there will likely be little or no grazing at some point during the winter. The best quality hay should be fed at this time, along with supplement if needed.

2006 State Market Lamb Show Results

SHOWMANSHIP WINNERS

First Grade		*Seventh Grade*	
Caley Driggers	Tift 4H	Haley Cook	Heard 4H
Second Grade		*Eighth Grade*	
Taylor Cross	Tift 4H	Kaitlyn Cawley	Tift 4H
Third Grade		*Ninth Grade*	
Jarrett Baldwin	Hart 4H	Sammie Williams	Elbert 4H
Fourth Grade		*Tenth Grade*	
Taylor Saxon	Hart 4H	Lindsay Josey	Franklin 4H
Fifth Grade		*Eleventh Grade*	
Claire Woodard	Morgan 4H	Dustin Cook	Heard 4H
Sixth Grade		*Twelfth Grade*	
Elizabeth Davis	Floyd 4H	Clint Cawley	Turner 4H

First Year Show

		Class No. 1	
		Chelsea Pusbach	Banks 4H
		Class No. 2	
		Garrett Saxon	Hart 4H
		Class No. 3	
		Rachel Minick	Webster 4H
Class No. 4			
Cooper Talley	LFO FFA		
Class No. 5			
Kaleb Boling	Murray FFA		

CHAMPION *First Year Exhibitor*:	Cooper Talley	LFO FFA
RESERVE CHAMPION *First Year Exhibitor*:	Logan Waldrop	Franklin 4H

COUNTY GROUP OF FIVE:

1) Oconee 4H
2) Elbert 4H
3) Murray FFA & 4H
4) Morgan 4H
5) Elbert 4H

BREEDERS GROUP of THREE: Stewart Club Lambs
Josey Club Lambs

2006 STATE MARKET LAMB RESULTS

Division 1

Champion	Garrett Saxon	Hart 4H
Reserve Champion	Garrett Saxon	Hart 4H
GA B&B Champion	Kaci Callaway	Tattnall 4H
GA B&B Reserve Campion	Elliott Wyllie	Elbert 4H

Division 2

Champion	Clint Cawley	Turner 4H
Reserve Champion	Caley Driggers	Tift 4H
GA B&B Champion	Clint Cawley	Turner 4H
GA B&B Reserve Champion	Caley Driggers	Tift 4H

Division 3

Champion	Asia Erving	Bainbridge FFA
Reserve Champion	Scout Josey	Franklin 4H
GA B&B Champion	Scout Josey	Franklin 4H
GA B&B Reserve Champion	Bo Bailey	Decatur 4H

Division 4

Champion	Asia Erving	Bainbridge FFA
Reserve Champion	Abbi Mabry	Catoosa 4H
GA B&B Champion	Haley Cook	Heard 4H
GA B&B Reserve Champion	Taylor Cross	Tift 4H

Division 5

Champion	Ashley Fisher	LFO FFA
Reserve Champion	Brock Bailey	Decatur 4H
GA B&B Champion	Katie Sutherland	Gordan 4H
GA B&B Reserve Champion	Lindsay Josey	Franklin 4H

Division 6

Champion	Ash Bailey	Decatur 4H
Reserve Champion	Cooper Talley	LFO FFA
GA B&B Champion	Kaitlyn Cawley	Tift 4H
GA B&B Reserve Champion	Elizabeth Arnold	Sonoraville FFA
GRAND CHAMPION	Ash Bailey	Bainbridge FFA
Reserve Grand Champion	Ashey Fisher	LFO FFA
GA B&B Champion	Kaitlyn Cawley	Tift 4H
GA B&B Reserve Champion	Katie Sutherland	Gordan 4H

2006 State Market Goat Show Showmanship

Class 1 (grade 1-2)		*Class 4* (grade 7-8)	
Alice Kirby - 1st grade	Pickens 4H	Mason Roberts - 8th grade	Worth 4H
Class 2 (grade 3-4)		*Class 5* (grade 9-10)	
Jared Cook - 3rd grade	Tift 4H	Melea Baldwin - 9th grade	Hart 4H
Class 3 (grade 5-6)		*Class 6* (grade 11-12)	
Erica Crawford - 6th grade	Turner 4H	Jamie Trammell - 11th grade	Worth 4H

2006 Market Goat Show Results

Class 1		*Class 7*	
Martha Thomas	Ware Magnet FFA	Ragen Bozeman	Worth 4H
Class 2		*Class 8*	
Greer Howard	Tift 4H	Bailee Boling	Banks 4H
Class 3		*Class 9*	
Laurel Bell	Turner 4H	Kelsey McNabb	Banks Middle FFA
Class 4		*Class 10*	
Alayna Nicole	Greene 4H	Brandon Boling	Banks 4H
Class 5		*Class 11*	
Rachel Hughes	Worth 4H	Mason Roberts	Worth 4H
Class 6		*Class 12*	
Glendon harris	Tift 4H	Charlie Turk	Banks Middle FFA

Grand Champion	Brandon Boling	Banks 4H
Reserve Champion	Mason Roberts	Worth 4H
Reserve Grand Champion	Bailee Boling	Banks 4H

Horse Facilities: Housing Needs & Options for Fall & Winter

Dr. Gary Heusner

Horses which are maintained in the proper body condition and the proper health maintenance program are quite adaptable and able to withstand wide fluctuations in weather and their total environment contrary to what many horse owners think. During the fall and winter months many horses are unnecessarily turned out with blankets, turn out rugs, etc. An understanding of "environmental physiology" will provide a better understanding of housing needs. The external environment to which horses are exposed consists not only of weather but also a myriad of physical, chemical, and biological factors. There are thermal factors, light factors, factors that elicit behavioral reactions, factors that cause disease, and so on. In order for the horse to live and function, the body needs to maintain a steady state in its internal environment despite fluctuating external surroundings. The term to describe the process of attempting to maintain a steady internal environment is HOMEOKINESIS. Homeokinesis is described as all vital mechanisms, however varied they may be, have only one object, that of preserving constant the conditions of life in the internal environment.

The environmental factors we are most concerned with in the management of horses are the thermal and behavioral factors. The horse has a wide thermal comfort zone or thermoneutral zone. This zone is defined as the effective environmental temperature in which the horse is neither under heat stress or cold stress, metabolic rate is minimal and the horse needs neither heat dissipating nor conserving mechanisms. Effective environmental temperature takes into account temperature, humidity, and wind speed. Little research has been done to define the thermal comfort zone of the horse. Some of the accepted values are a temperature range of 45 to 75 degrees F and a relative humidity range of 50% to 75%. In the fall and winter there are four zones generally used to describe reactions to cool and cold environments on the horse as shown in the figure below.

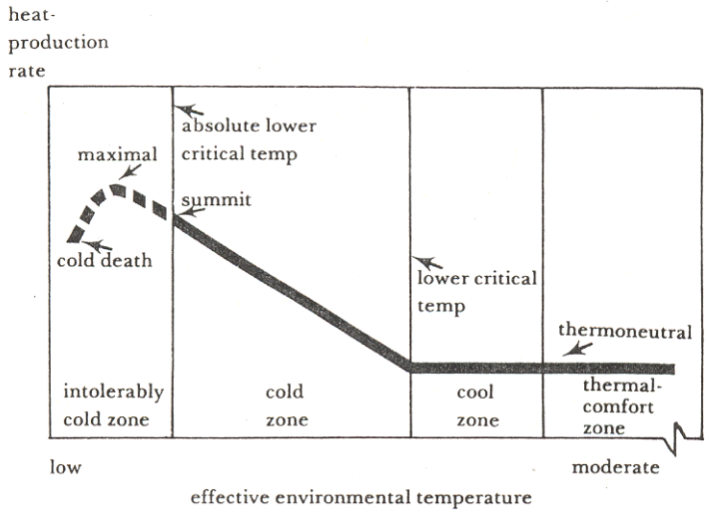
Thermal comfort zone = defined above.

Cool zone = as effective environmental temperature falls below the lower limit of the thermal-comfort zone the horse is in the cool zone. In this region, the horse invokes physical-thermoregulatory processes to conserve metabolic heat. As temperature decreases within the cool zone, the metabolic rate of the horse remains at the thermal neutral level. But, because heat conserving mechanisms do require expenditure of energy, the horse's maintenance energy requirement does increase. Meeting the increased maintenance energy requirement is easily accomplished by the horse consuming more forage. This provides extra energy and the heat generated from fermentation (microbial digestion of forage) will help maintain body temperature. The magnitude of the various insulative and behavioral responses to cold stress increases progressively as temperatures decrease. Horses are at their maximal effectiveness in conserving heat at the lower limit of the cool zone which is called the lower critical temperature.

Cold zone = below the lower critical temperature lies the cold zone. In this zone the horses must increase its metabolic rate to maintain homeothermy. Heat conserving processes continue at maximal effectiveness throughout the cold zone. These mechanisms include increasing voluntary skeletal-muscular activity, involuntary skeletal-muscular contraction (shivering), and increasing general metabolic rate. Summit metabolic rate is the highest rate a horse with free access to feed can maintain over an

extended period. The absolute lower critical temperature is the effective environmental temperature at summit metabolic rate and the lower limit of the cold zone.

Intolerably cold zone = this zone, unless the horse is in extremely poor condition, sick, and has little to eat, is probably never reached in Georgia. The horse can no longer control its body temperature; the environment limits the ability of the maximally responding horse to balance its heat loss against internal and external heat loads. The body temperature begins to fall and sooner or later the horse dies.



Shelters that help provide protection from cold effective environmental temperatures for horses include buildings that consist of open-front sheds. Open front sheds or loafing sheds do not have to be elaborate. They are three sided and can be made out of most any material as long as the material is safe for horses. The most important consideration of the structure is orientation, the size based on the number of horses that will be allowed access to it at any one time and height to allow for ventilation, and protection from precipitation. The open side of the shelter should face to the south or southeast with the long axis of the building running on an east - west axis. In the fall and winter months the orientation will provide more heating to the open side when the open side is to the southeast or south. The minimum clearance from the ground to the eave on the open side is 10 feet. The width of the shelter, depending on type of construction can be 14 to 40 feet wide. Open barns wider than 40 feet often do not ventilate well naturally. As a rule of thumb a minimum of 80 square feet of floor space should be provided per 1,000 pounds of horse weight using the shed. Below is a table of the recommended roofed area for various classes of horses.

Recommended roofed area for open-front horse sheds.

Class of horse	Covered area (sq ft/horse)
Foals	100
Yearlings	120
Mature horses	150

If the sheds are also used for feeding, especially for providing hay 36 inches of feeder space should be supplied per mature horse, 30 inches for yearlings, and 24 inches for foals.

Other goals to keep cold stress to a minimum are maximizing forage intake, keeping mud exposure level to a minimum, and allowing the horse to acclimate to the colder temperatures. In other words do not over do heated barns and the use of blankets if the horse is in moderate or higher body condition and has an adequate hair coat to provide insulation. Many equine physiologists and behaviorists consider the best housing environment for horses is a run-out situation in which the horse can choose to be inside or out. Except in the most extreme conditions, the horse should be able to thermoregulate physiologically with the structures discussed.

Beef Cattle Production and Risk Management Seminars

Johnny Rossi
Extension Animal Scientist

The beef team has been awarded a grant from the USDA Federal Crop Insurance Corporation operated through the Risk Management Agency to conduct eight beef cattle production and risk management training seminars around the state. Topics covered will include winter feeding, use of artificial insemination, preparing a budget, national animal ID system, and nutritional toxicities of forages and feeds. Speakers will include specialists from Departments of Animal and Dairy Science, Agricultural and Applied Economics, and the College of Veterinary Medicine. In addition, a spiral bound notebook will be given to each participant. It will contain information on each specific presentation as well as bulletins related to all areas of beef production. The eight counties that have agreed to host are Wayne, Laurens, Franklin, Gordon, Upson, Irwin, Grady, and Carroll counties. The dates for each meeting are being finalized at this time, but all seminars will be conducted from January through April. Dates and locations will be in the next issue of the newsletter.

Anyone interested in beef cattle production are welcome to attend. There will be no cost to program participants. The seminars will start at approximately 6 PM and conclude at 9 PM. This is a great opportunity for producers to learn several management practices that can reduce production and financial risks.

HORSE HAPPENINGS

Dr. Gary Heusner

HorseQuest Races into the Information World

If you're into horses, you're going to love eXtension's HorseQuest!

With information ranging from finding the best horse for your child to riding techniques to horse diseases, nutrition, and care, HorseQuest brings the "best of the best" university research-based information on horses to Americans via its most popular information source, the Internet.

Found at www.extension.org/horses the interactive web site provides news, events, frequently asked questions, and "Ask the Expert" features as well as in-depth learning modules on equine-related topics.

HorseQuest features include:

1) **Frequently Asked Questions**: Compiled by equine experts from across the country, this includes the most commonly asked questions and peer-reviewed answers on horse ownership and care.

2) **Ask an Expert**: Equine experts nationwide respond to individual horse-related questions within 48 hours of submission.

3) **Online Chats:** With topics ranging from housing to feeding to choosing the best horse, these online chat sessions are scheduled routinely with experts in each subject matter area. Only an Internet connection is required to participate.

4) **News & Upcoming Events:** Every day something's happening in the world of horses and HorseQuest keeps the news and calendar of events current at the local, state, and national levels.

5) **Learning Lessons:** Horse ownership is serious business and HorseQuest offers interactive learning lessons on the costs of horse ownership, selecting the right horse, how to evaluate a prospective horse, and more.

HorseQuest is just the beginning for eXtension (pronounced "e-extension"), the exciting new project from the U.S. Land Grant University system designed to bring the vast resources of the nation's largest non-formal education system, the Cooperative Extension Service, to a broader audience via the Internet. Organized around communities of interest, such as horses in this case, subject matter experts in the nation's Land Grant University system form communities of practice to develop individual components of eXtension.

HorseQuest is the first eXtension "community of practice" to come online. Twenty more communities with topics including financial security, imported fire ants, disaster response, parenting, rural entrepreneurship, horticulture, and wildlife damage management are set to come online in the next few months. All will feature similar attributes of learning modules, news, events, frequently asked questions and "Ask the Expert". Extension has nearly 3,000 offices throughout the country offering localized information and resources. To find your local Extension office, go towww.extension.org, log in indicating your state and university affiliation, and choose the "Contact your local Extension office" link

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Market News
GEORGIA LIVESTOCK

Department of Agriculture
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Atlanta, Georgia 30334

WEEK ENDING: 11-03-06 The Cooperative Extension Service would like to thank Terry Harris for submitting this information.

GEORGIA CATTLE: RECEIPTS: 12,700 LAST WK: 13,600 YEAR AGO: 13,600

FEEDERS	STEERS	MED & LARGE 1	HEIFERS
	125.00-152.00	300/350 LBS	109.00-136.00
	115.00-143.00	350/400	100.00-129.00
	106.00-130.00	400/450	92.00-113.00
	100.00-122.00	450/500	90.00-115.00
	93.00-113.00	500/550	80.00-110.00
	87.00-110.00	550/600	82.00-101.00
	81.00-99.00	600/650	78.00-103.00
	83.00-99.00	650/700	77.00-98.00

SLAUGHTER COWS	% LEAN	75-80% 850-1200 LBS	40.50-48.00
		80-85% 850-1200 LBS	43.00-53.00
		80-86% OVER 1200 LBS	43.50-53.50
		85-90% 800-1200 LBS	40.00-50.00

5 Area Daily Wtd Average - Texas/Oklahoma; Kansas; Nebraska; Colorado; and Iowa/So Minnesota Feedlots:
Steers...Select/Choice 65-80% Weighted Average Price Range 87-89.50
Heifers..Select/Choice 65-80% Weighted Average Price Range86-89.50
By-Product Drop Value (Steer)...Hide and Offal Value 8.73cwt.
Box Beef Cut-Out ValueChoice 1-3 550/750 LBS. 147.79
Select 1-3 550/700 LBS. 135.30

Georgia Hogs: GA-FL-AL Direct Area Receipts 3700 Trends 3.00 Lower

US 1-2 220/260 LBS. 36.00-38.00 Sows 300/500 LBS. 500-UP

FEEDER PIGS	GEORGIA	TENNESSEE		GEORGIA	TENNESSEE
US 1-2 35/40 LBS.			55-60		
40/45			60/65		
45/50			65/70		
50/55			70/80		

IOWA-SOUTHERN MINNESOTA DIRECT HOGS: RECEIPTS TRENDS .52 lower
BARROWS & GILTS 49-51% LEAN 185 LB CARCASSES RANGE 55.00-67.50 WTD AVG. 63.98