AS1 - Newsletter

Telephone: (706) 542-2581 Fax: (706) 542-9316 Animal and Dairy Science Department Rhodes Center for Animal and Dairy Science

Livestock Newsletter May/June 2004 http://www.ces.uga.edu/Agriculture/asdsvm/beef-home.html • Timing of Castration Effects Growth and Carcass Traits, Johnny Rossi • Fifth Annual HERD Sale at Tifton, Sale Summary, Johnny Rossi • Embryo Transfer Advantages and Disadvantages, Timothy W. Wilson • Southern Select Show Pigs Sale • Beef Cattle Research Update, Charles A. McPeake • Beef Cattle Pesticides (2004), N. C. Hinkle 10 World Class Jumping • Market News - Georgia Livestock

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

Robert L. Stewart Extension Coordinator Animal and Dairy Science Department

LIVESTOCK NEWSLETTER

May/June 2004

Timing of Castration Effects Growth And Carcass Traits

Johnny Rossi Extension Beef Scientist

Timing of castration is a management practice that varies greatly among producers. Bulls will grow faster than steers and many producers delay castration or do not castrate calves prior to sale to improve sale weight. Discounts become significant at weights of 500 pounds or more and most producers sell bull calves at weights that result in discounted prices relative to steers. If calves will be retained through the pre conditioning or finishing phase, calves must be castrated at some point to avoid substantial discounts.

When calves are castrated they should be administered a growth promoting implant. Castration and implanting maximize weight gain and eliminate potential discounts on bull calves. A study performed at the Coastal Plain Experiment Station in Tifton evaluated growth rates of calves castrated at birth and implanted versus calves that remained as bulls. Growth rates and weaning rates were equal between the two groups of calves. Castration at birth greatly reduces stress on the calf, is safer, and increases sale price of heavier calves.

Kansas State researchers determined the effect of castration time on feedlot performance and carcass traits. Calves were castrated either at 75 days of age or at 220 days of age (weaning time). In addition, calves castrated at 75 days of age were administered an implant. Calves were placed in a feedlot after a 28 day pre conditioning period. Calves that were castrated and implanted at 75 days of age graded 60% choice versus only 41% choice for steers castrated at weaning. Calves castrated at weaning had more desirable yield grades (average of 3.4) compared with calves castrated at 75 days of age and implanted (average of 3.7) due to lower backfat and a larger ribeye area. If finished calves are marketed on a grid, then age at castration will affect which type of grid is most desirable.

Timing of castration will affect calf performance during preconditioning. A University of Tennessee study compared preconditioning calf performance between steer calves and bull calves that were castrated at the start of the preconditioning period. Calves that were castrated prior to weaning gained 0.5 lbs more per day than calves castrated at weaning. Weaning is the most stressful time in a calf's life and castration should be avoided during this time. The Kansas study showed similar effects, in that calves castrated and implanted at birth weighed 13 lbs more than calves castrated at weaning at the conclusion of a 28 day pre conditioning period.

Castrating calves early in life and administering an implant will produce similar weaning weights

AS-1

as bull calves and will improve gain during the pre conditioning period. Calves castrated early will have higher carcass quality grades but less desirable yield grades than calves castrated at weaning time. Castrating a calf early in life and administering an implant is less stressful on the calf, will avoid discounts on sale day, and will return more money to the producer.

Fifth Annual HERD Sale at Tifton, Sale Summary

Johnny Rossi Extension Animal Scientist

The Fifth Heifer Evaluation and Reproductive Development Sale was held at the Tifton Bull Evaluation Center in Irwinville on April 20, 2004. In all, 39 consignors entered 245 heifers in the program at the beginning of October. A total of 179 heifers were sold for an average of \$967. There was a good crowd with a total of 40 buyers from Georgia and Florida.

The top-selling heifer was consigned by Callaway Cattle Co. and sold for \$2,000. The largest number of heifers purchased was 20 by Harris Livestock of in Boston, GA. Heifers that were confirmed pregnant to an AI date sold for \$995. Heifers confirmed pregnant to a clean-up bull sold for \$850.

Heifers were heat-synchronized using CIDR's and bred A.I. for two heat cycles to a calving ease Angus bull. The synchronization protocol consists of inserting a CIDR for seven days. A shot of prostaglandin is given 6 days after the CIDR is inserted. The CIDR is removed the following day and heifers are bred 12 hours after the onset of standing heat. A clean-up bull was put with each group of heifers for two more cycles. The A.I. conception rate was 68%, and the overall pregnancy rate was 88%.

The test is designed to maintain a moderate growth rate of approximately 1.7 pounds per day to achieve a target weight (65% of estimated mature) at the beginning of the breeding period on January 1. Heifers were fed high quality Coastal bermudagrass hay (13% crude protein) plus 6 lb/d citrus pulp and 3 lb/d hominy feed. A free choice mineral containing an ionophore (Bovatec) was fed. In addition to weight gain, heifers are evaluated for reproductive tract maturity, disposition, pelvic area, and frame score.

The HERD program would not be possible without the support of the HERD Team. This group of Extension agents forms guidelines, promotes the program and does a large portion of the work. This years program was a great success and many consignors and other cattle producers are beginning to use the HERD program protocol on their cattle at home.

Plans will begin soon for the 2004-2005 HERD program with heifers being delivered in the fall. If you are interested, contact your local Extension agent or Johnny Rossi at 229/386-3407 or e-mail at jrossi@uga.edu.

Embryo Transfer Advantages and Disadvantages

Timothy W. Wilson Extension Animal Scientist - Beef Cattle

Scientific discoveries cited during the late 1940s and early 50s introduced superovulation and transfer of bovine embryos to the scientific community. Technological advances during the past 25 years has made the use of superior genetics through artificial insemination and embryo transfer a reality for both the small and large producer. Acceptance of embryo transfer as a usable means to improve breeding stock is demonstrated through increased use throughout the world. The number of "in vivo" (within the body) embryo transfers reported world-wide by the International Embryo Transfer Society (IETS) in 2002 increased 20% (538,312) compared to 2001. Although this increase is positive, most gains were due to additional countries reporting in 2002 that had not reported in 2001. In the United States, beef producers recovered 16,313 embryos with 4,632 reported from the Southeast (American Embryo Transfer Association (AETA), 2003). Scientist continue to make advances in reproductive technology that allows producers to readily employ technology such as embryo transfer.

Many advantages can result from embryo transfer. Since embryo transfer should be used to improve breeding stock, superovulating and transplanting embryos from superior sires and dams can result in rapid progeny testing. Once genetics from proven sire/dam combinations are confirmed, embryos can be frozen and used at a later date, providing a source of possible replacement heifers in the future. Superior genetics from dams with reproductive problems can be attained with the use of embryo transfer. Cattle that have difficulties with embryo attachment, cysts or adhesions can be superovulated and transferred into recipient cattle.

Although superior genetics obtained through the embryo transfer process can substantially improve many beef herds, producers should be aware of some of the disadvantages associated with this form of reproductive improvement. Cost may be the single most limiting factor related to embryo transfer. In 1982 frozen embryos cost approximately \$500.00. Fourteen years later, this cost had been reduced to \$250.00 but depending on just a few variables could range up to \$500.00. In 2004, depending on specifics, fresh embryos could be flushed and transferred for approximately \$175.00. Freezing these same embryos could increase the price to \$225.00.

There are many factors that contribute to the fluctuation in price from 1982 to 2004. Collection, transfer, freezing, blood typing and many more factors not listed could contribute to price variation. A common misconception is that producers should flush and collect the best cow in their herd. Costs related to embryo collection and transfer may only be justified with cattle that rank in the top 5 to 10 % of their breed. Cattle that have clear genetic advantages provided the best opportunity for the most return per embryo. Producers who are interested in embryo transfer should consult with industry professionals prior to implementation to discuss possible costs associated with their individual operation.

Most beef producers have commitments that limit the amount of time they can devote to breeding

purposes. Similar to artificial insemination breeding programs, making use of embryo transfer on the farm increases the amount of time that must be allocated to working cattle.

Advancements in biotechnology over the past 25 years has lead to the development of embryo splitting and sexing, semen sexing and many other interesting areas of science. As these technologies are improved, producers may have additional proven scientific methods of herd improvement.

There are many advantages and disadvantages of embryo transfer a producer must consider before implementing it as a reproductive management practice. Careful consideration should be taken to ensure that cattle with superior genetics are collected and transferred to assure an adequate price per embryo. If you have any questions related to embryo transfer or the technology related to this topic, please don't hesitate to contact your County Extension Agent, Veterinarian or you can contact me at (912) 681-5639.



BEEF CATTLE RESEARCH UPDATE

Charles A. McPeake Extension Beef Specialist

Spring 2004

Following are reviews of research projects recently reported at scientific meetings or in scientific publications. These reviews are summarized by Michigan State University personnel.

BREEDING/GENETICS

Hide Thickness Had Little Effect on Ability of Ultrasound to Predict Percent Intramuscular Fat

The objective of this study by Iowa State Univ. scientists was to establish whether hide thickness has an adverse effect on the accuracy of ultrasound predictions of percent intramuscular fat (UPFAT). A total of 740 head of cattle were scanned with real-time ultrasound. Actual percent intramuscular fat (PFAT) was determined by chemical extraction on a loin muscle sample from each animal. The correlation between UPFAT and PFAT was high (0.63). Hide thickness was determined by measuring the first image collected on each animal. The cattle were then classified into thin-hided (< 0.15 in.) or thick-hided (>0.15 in.) groups. Images were collected with two technologies, either Aloka 500 (Aloka Technology, Wallingford, CT) or Classic Scanner 200 (Classic Medical Supply, Tequesta, FL) ultrasound machines.

Overall, hide thickness had little effect on the ability of ultrasound to predict percent intramuscular fat in the live animal. However, in some instances, percent intramuscular fat was underestimated in thick hided cattle scanned with Aloka technology (Tait et al. 2004. Iowa State Univ. Anim. Ind. Rep., A.S. Leaflet R1873).

Flow Cytometry Was 90% Accurate in Sorting Sperm Into Male and Female Cells

This Colorado State Univ. study had two objectives: to determine whether calves produced by sexed sperm differed from controls, and to what extent the sex ratio of calves was altered by the sexing procedure (flow cytometry/cell sorting). Data were used from 739 calves produced from control sperm and 1,169 calves produced from sexed sperm.

There were no significant differences between treatments in gestation length, calving ease, birth weight, calf vigor, abortion rate, weaning weight, and calf death rate from birth to weaning. No anatomical abnormalities were noted for any calves in this study. The sex ratio of calves from unsexed control semen was 49.2% male; 50.8% female. Accuracy of using X (female)-sorted sperm was 87.8% female calves, and Y (male)-sorted sperm produced 92.1% male calves. It was concluded that flow cytometry/cell sorting can be used to preselect calves safety with approximately 90% accuracy (Tubman et al. 2004. J. Anim. Sci. 82:1029).

Relationships Between Mature Cow Size and Condition on Carcass Traits of Their Steer Relatives

Data from 1,800 mature cows and their paternal half-sib steers were used at U.S. MARC to examine genetic relationships between measures of mature cow size and condition and carcass characteristics.

- Heritability estimates for most carcass traits were moderate to high (0.26 to 0.65), suggesting that selection for these traits would be effective.
- Heritabilities for cow mature weight and height were high (0.52 and 0.71, respectively) but relatively low for body condition score (0.16).
- Genetic correlations between cow mature size and steer carcass composition and meat quality traits were relatively low (-0.05 to 0.25).
- Genetic correlations between mature weight and height and hot carcass weight were very high (0.81 and 0.69, respectively).

The authors indicated that selection for or against cow mature size would be effective for changing size, but would not be expected to result in much change in carcass composition and meat quality traits such as percent retail product, marbling, and tenderness. However, given the weight discounts currently used in pricing carcass beef, genetic correlations between hot carcass weight and mature cow size may be too large to ignore (Nephawe. 2004. J. Anim. Sci. 82:647).

Sire Milk EPDs Were Closely Related to Production of Their Daughters

Oklahoma State Univ. researchers conducted a long-term study to evaluate the productivity of daughters of highly proven high and low Milk EPD Angus and Hereford sires. The high and low Milk EPD sires differed by 30.0 lb of Milk EPD. Total cow milk production from 37 to 205 days and 205-day calf weights were measured for 1,843 cow-calf pairs from 1991 to 2000. High milk EPD sired cows produced 237.0 lb more total milk than low milk EPD sired cows. High milk EPD sired cows weaned 30.4 lb heavier calves than low milk EPD sired cows. The authors concluded that Milk EPDs are accurate predictors of progeny performance in the Angus and Hereford breeds and can be used by producers as a tool in selection and culling programs in purebred and commercial beef herds to increase calf weaning weight (Bounds et al. 2004. Southern Section, ASAS, Abstract 21).

COW-CALF

Determining Optimal Replacement Strategies in Beef Cow Operations

Colorado State Univ. and Univ. of Nebraska scientists analyzed data from a large Nebraska cow herd to compare three economic models to determine optimal replacement and marketing strategies for maximizing long-term profit potential. The model that consistently returned the highest average net income per animal annually for the enterprise also had the most distinct and visible composition over a 20-year period with respect to cow age groups (yearlings, 2's, 3's, 4 to 9's, and over 9's). This model suggested that the ranch market mostly weaned heifers in lower-priced years and mostly bred yearlings in higher-priced years, resulting in an older herd in lower-priced years and a younger herd in higher-priced years. The model also favored a practice in which more cows were sold as bred cows in the fall than as pairs in the spring. The authors acknowledged that a replacement strategy for different ranches may vary with differing circumstances; consequently, this decision should be repeatedly addressed to ensure the long-term success of the enterprise (Mackey et al. 2004. Prof. Anim. Sci. 20:87).

Factors Affecting Beef Cow Longevity

Washington State Univ. and USDA researchers used a statistical method, "survival analysis techniques," to identify factors affecting the longevity of beef females. They used data from 1,379 composite cows, born from 1982 to 1999 at the Miles City research station.

Longevity was not affected by age at first calving or calf birth weight. Females that experienced dystocia were at 60% greater risk of being culled than those calving unassisted. Interestingly, as breeding value for cow weight increased, the risk of being culled decreased, whereas the risk of being culled increased with increasing maternal breeding value for preweaning calf gain. The authors noted that this likely due to the fact that cows with lower milk production may accumulate body energy reserves during lactation and therefore weigh more at weaning than contemporaries with higher milk production. Conversely, heavier-milking cows may expend more energy reserves and therefore not be in adequate condition to rebreed.

The analysis revealed that selection among heifers based on their birth weight, 200-day preweaning gain, or 365-day weight had no effect on subsequent longevity. Moreover, weaning weight and yearling weight of the cow are not predictive of her life-cycle efficiency.

The estimate of heritability for longevity was low (0.14). The authors stated that the relatively low heritability and the lack of indicators of longevity expressed early in life indicate that genetic improvement of longevity will be difficult. This suggests that longevity in the herd may be best ensured by matching the genetic potential of cows for size and milk production such that rebreeding performance is not compromised (Rogers et al. 2004. J. Anim. Sci. 82:860).

Effect of Time of Insemination on Pregnancy Rate of Beef Heifers

Research has shown that ovulation in beef females occurs at an average of 31 ± 1 hours after the onset of estrus (range of 22 to 43 hours). If the onset of estrus could be determined with relative precision, the optimal time for insemination should be able to be determined. In this 3-year Oklahoma State Univ. study, a radiotelemetric system was used to detect when mounting occurred in Angus x Hereford beef heifers (n=161). Onset of estrus was defined as the first of two mounts received within 4 hours. Lutalyse[®] was used to induce estrus. The heifers were randomly allotted for AI at 1 to 4, 16 to 20, or 32 to 36 hours after the onset of estrus. Pregnancy was diagnosed 26 to 32 days after AI, using ultrasound. Pregnancy rate was not influenced significantly by time of AI, and averaged 62.3, 70.2, and 63.4% at 1 to 4, 16 to 20, and 32 to 36 hours, respectively. The authors stated, however, that because the number of

heifers in each treatment was limited (n=49 to 57), additional observations may be necessary to conclusively determine if AI at 16 to 20 hours after the onset of estrus (11 to 15 hours prior to the expected time of ovulation) will increase pregnancy rate compared with AI at 1 to 4 and 32 to 36 hours after onset of estrus (Wettemann et al. 2004. Southern Section, ASAS, Abstract 76).

Emerging Issues for Cow Herds

Dr. John Lawrence, Director of the Iowa Beef Center at Iowa State Univ. recently presented an excellent review of emerging trends and issues in the beef industry. Following is a brief summary of some of the points he made (Lawrence. 2004. Proc. 33rd Annual Cornbelt Cow-Calf Conf., Ottumwa, IA).

1. Now that USDA has prohibited acceptance of "downer" cows, producers should rethink management of cattle that may potentially become nonambulatory and market them before they begin to go down hill rather than waiting until they are worse.

2. Value-based or grid marketing will continue its growth and will likely evolve to include other attributes. To date, Choice-Select spread has been the major determinant of grid premiums and discounts. However, premiums on Yield Grades 1 and 2 are growing and discounts on YG 3.5 will become more common. The base price may eventually decline into the YG 2 range. Economics are driving the trend to higher yielding cattle as the industry moves to more case-ready beef products.

3. Information on how calves may be expected to perform in the feedlot has become increasingly important. In the future, performance in the cooler will increase in importance as carcass premiums and discounts increase.

4. Information on cow herd health practices will become more valuable now that we know calf sickness has a dramatic impact on carcass value as well as feedlot performance.5.Special calf sales in which consignors have common management practices and genetics will become increasingly popular.

6. A national ID system will improve the opportunity to verify and pass information from seller to buyer regardless of how cattle are sold.

7. In the past, cow herds needed to retain ownership of their calves to capture their full value. With proven performance and traceable data that can be marketed with the calves, feedyards will be willing to pay closer to their full value.

Beef Cattle Pesticides (2004)

Dr. N.C. Hinkle Department of Entomology University of Georgia

The accompanying tables provide information for cattlemen to use in controlling pests on their herds, including pesticide class information for each product to facilitate pesticide rotation. Because insecticide resistance is such a problem, especially in pest fly populations, producers try to alternate using chemicals from different pesticide classes. For instance, a producer may use an organophosphate for three years, then switch to a pyrethroid for a couple of years.

Understanding the pest is important for effective suppression. Your County Cooperative Extension Office is available to assist in pest identification and development of pest management programs. County agents can provide useful information about pest biology and behavior that may save significant money and time.

	Active Ingredient (Pesticide Class)	Brand Names		
Sprays	Tetrachlorvinphos (OP)	Rabon 50 WP, Rabon E.C.		
	Dichlorvos (OP)	Vapona Concentrate Insecticide		
	Tetrachlorvinphos + Dichlorvos (OP)	Ravap Spray		
	Coumaphos (OP)	Co-Ral Fly & Tick Spray		
	Permethrin (Pyr)	Permectrin, Atroban Prolate/Lintox Spray, Del-Phos, GX-118		
	Phosmet (OP)			
	Malathion (OP)	Malathion Spray Elector Methoxychlor Spray		
	Spinosad (macrolide)			
	Methoxychlor (organochlorine)			
	Amitraz (amidine)	Taktic		
Backrubber	rs and facerubbers			
	Permethrin (Pyr)	Ectiban, Insectrin, Permethrin Rubbing Mxtr		
	Tetrachlorvinphos + Dichlorvos (OP)	Ravap		
	Coumaphos (OP)	Co-Ral Backrubber Oil		
	Malathion (OP)	Malathion Backrubber Oil		
Pour-onCy	fluthrin (Pyr) Cylence			
5	Fenthion (OP)	Tiguvon Pour-on, Spotton, Lysoff		
	Lambda-cyhalothrin (Pyr)	Saber Pour-on		
	Moxidectin (ML)	Cydectin Pour-on		
	Permethrin (Pyr)	Delice, Expar, Brute, Atroban		
	Spinosad (macrolide)	Elector		
	Ivermectin (ML)	Ivomec		
	Eprinomectin (ML)	Eprinex		

Beef Cattle Insecticides (2004)

Coumaphos (OP)	Co-Ral Dust
Malathion (OP)	Malathion Dust
Permethrin (Pyr)	Prozap Dust, Permectrin Dust
Tetrachloryinphos (OP)	Rabon Dust
Zeta-cypermethrin (Pyr) Py	thon Dust
Tetrachlorvinphos (OP)	Rabon Dust
Coumaphos (OP)	Co-Ral Dust, Dust Devil
Tetrachlorvinphos (OP)	Rabon Oral Larvicide
Methoprene (IGR)	Altosid Mineral
Dimilin (IGR)	Vigilante (Hoechst-Roussel)
Ivermectin (ML)	Ivomec SR Bolus
Doramectin (ML) Ivermectin (ML) Moxidectin (ML) IGR = insect growth regulator ML = macrocyclic lag	Dectomax Ivomec Injectable Moxidectin Injectable
	Coumaphos (OP) Malathion (OP) Permethrin (Pyr) Tetrachlorvinphos (OP) Zeta-cypermethrin (Pyr) Py Tetrachlorvinphos (OP) Coumaphos (OP) Tetrachlorvinphos (OP) Methoprene (IGR) Dimilin (IGR) Ivermectin (ML) Ivermectin (ML) Ivermectin (ML) IGR = insect growth regulator, ML = macrocyclic lad

Fly Control Insecticides for Buildings and Barns

Cypermethrin (Demon)	Cyfluthrin (Tempo, Countdown)	Dibrom (Naled)
Dichlorvos (Vapona, DDVP)	Dimethoate (Cygon)	Imidacloprid (QuickBayt)
Malathion (Cythion)	Methomyl (Golden Malrin fly bait)	Nithiazine (QuikStrike)
Permethrin (Permectrin, Ectiban)	Pyrethrins	Resmethrin

Cattle Ear Tags

<u>Tag Name</u>	Active Ingredient	Chemical Class Manufacturer		
Atroban Extra	Permethrin	Pyrethroid	Schering-Plough	
Commando	Ethion	Organophosphate	Boehringer-Ingelheim	
Co-Ral Plus	Diazinon +	Organophosphate	Bayer	
	Coumaphos			
Cylence Ultra	Beta-cyfluthrin	Pyrethroid	Bayer	
Diaphos R _x	Diazinon +	Organophosphate	Y-Tex	
	Chlorpyrifos			
Dominator	Pirimiphos methyl	Organophosphate	Schering-Plough	
Double Barrel	Lambdacyhalothrin +	Pyrethroid +	Schering-Plough	
	Pirimiphosmethyl	Organophosphate		
GardStar Plus	Permethrin	Pyrethroid	Y-Tex	
Magnum	Zeta-cypermethrin	Pyrethroid	Y-Tex	
Max-Con	Cypermethrin +	Pyrethroid + Y-Tex		
	Chlorpyrifos	Organophosphate		
OPtimizer	Diazinon	Organophosphate	Y-Tex	

Patriot Diazinon		Organophosphate	Boehringer-Ingelheim
PYthon	Zeta-cypermethrin	Pyrethroid	Y-Tex
Saber Extra	Lambdacyhalotrin	Pyrethroid	Schering-Plough
Super Deckem Fenvalerate		Pyrethroid	Destron-Fearing
Warrior	Diazinon +	Organophosphate Y-Tex	
	Chlorpyrifos		
X-Terminator	Diazinon	Organophosphate	Destron-Fearing
ZetaGard Zeta-cypermethrin		Pyrethroid	Y-Tex
Z-Diazinon Diazinon		Organophosphate	Farnam
Z-Permethrin Permethrin		Pyrethroid	Farnam

* * * * * * * * * * * * * * * * *

World Class Show Jumping to benefit 4-H of Georgia

Saturday, June 26, 2004

Charity Dinner and \$25,000 Show Jumping Grand Prix Georgia International Horse Park, Conyers

For tickets & Information call 770-922-3350 or E-mail: <u>www.georgiahorsecouncil.com</u>

Children's Activities begin at 1:00 pm

Silent Auction begins at 2:00 pm

<u>Dinner is served at 5:00 pm under Large tents on the Grand Prix Field!</u> Outback Steakhouse dinner tickets - \$30.00

<u>Grand Prix starts at 6:00 pm</u> General Seating in the Stadium for \$10.00 per person donation 10 & under FREE

Also enjoy on site shopping, restaurant, vendors, concessions, large clean air conditioned restrooms, and 4 additional rings of show jumping!









TENNESSEE

WEEK ENDING: 5-21-04 The Cooperative Extension Service would like to thank Terry Harris for submitting this information.

GEORGIA CATTLE:	RECEIPTS: <u>14,200</u>	LAST WK <u>11,900</u>		YEAR AGO <u>10,600</u>	
FEEDERS		STEERS	MED <u>&</u> LARGE 1		HEIFERS
		130.00-150.00	300/350 LBS		115.00-127.00
		120.00-135.00	350/400		110.00-123.00
		115.00-127.00	400/450		106.00-118.00
		110.00-125.00	450/500		102.00-114.00
		105.00-116.00	500/550		99.00-110.00
		100.00-112.00	550/600		95.00-107.00
		98.00-108.00	600/650		92.00-102.00
		95.00-105.00	650/700		89.00-99.00
SLAUGHTER COW	<u>OWS</u> % LEAN 75 80	75-80% 850-1200 LBS	-	52	.00-57.00
		80-85% 850-1200 LBS	200 LBS		53.00-58.00
		80-86% OVER 1200 LBS	-	54	.00-58.00
		85-90% 800-1200 LBS	-	50	.00-55.00

<u>5 Area Daily Wtd Average - Texas/Oklahoma; Kansas; Nebraska; Colorado; and Iowa/So Minnesota Feedlots:</u> Steers...Select/Choice 65-80% Weighted Average Price Range <u>84.50-87.25</u>

Heifers..Select/Choice 65-80% Weighted Average Price Range By-Product Drop Value (Steer)...Hide and Offal Value 8.03 /cwt. Box Beef Cut-Out Value Choice 1-3 550/750 LBS. 153.56 Select 1-3 550/700 LBS. 134.94

85.00-87.00

<u>Georgia Hogs:</u> GA-FL-AL	. Direct Area Receipt	s <u>4500</u> Trends <u>2</u>	.00 <u>lower</u>	
US 1-2 220/260 LBS. <u>56.</u>	00-58.00 Sows 300/	/500 LBS	500-UP	
FEEDER PIGS	GEORGIA	TENNESSEE	_	GEORGIA
US 1-2 35/40 LBS.			55-60	\sim
40/45			60/65	

45/50 50/55

IOWA-SOUTHERN MINNESOTA DIRECT HOGS: RECEIPTS TRENDS 178 lower WTD AVG. 78.80 BARROWS & GILTS 49-51% LEAN 185 LB CARCASSES RANGE 70.50-82.50

65/70

70/80