

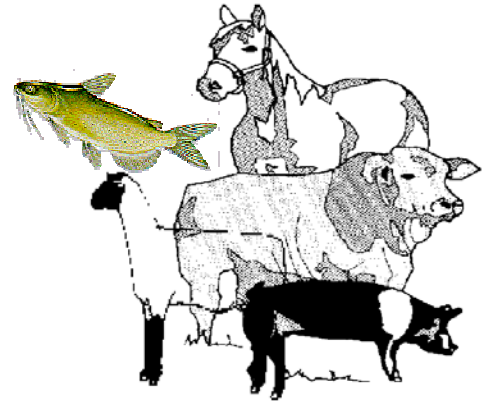
Telephone: (706) 542-2581
Fax: (706) 542-9316

Animal and Dairy Science Department
Rhodes Center for Animal and Dairy Science

Livestock Newsletter


November/December 2002

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



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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

Santa's Animals

Ronnie Silcox
Extension Santa Claus Expert

Yes, Virginia, there really is a Santa Claus, but he didn't always ride in a sleigh pulled by reindeer.

Saint Nicholas was a real person who lived in the 4th Century A.D. and later became the patron saint of children. Various legends about Saint Nicholas spread across Europe. For hundreds of years, if Saint Nicholas made a visit, he did so on foot. Any goodies he carried were packed on his back or on the back of a donkey. In those days Saint Nicholas was a tall, slim fellow, and about all you could expect Saint Nick and his donkey to bring you were a few nuts and some fruit.

Saint Nicholas came to America with the Dutch who settled what is now New York. Like so many of the immigrants who came to the new world his name was changed to a more American pronunciation. To the English settlers, the Dutch pronunciation of Saint Nicholas sounded sort of like Santa Claus. Despite the name change, Santa still made his rounds on foot with his donkey, leaving a few nuts and fruits in the wooden shoes left on the hearth by little Dutch children.

It wasn't until 1822 that Santa traded in his donkey for a sleigh and reindeer. Much of what we now know about Santa comes from the poem written by Clement Clarke Moore. It was the poem, "A visit from Saint Nicholas" (aka "The Night Before Christmas") that made Santa a reindeer rancher. We are not sure why Moore put Santa in a sleigh, but the old boy was getting a little age on him. After spending several hundred years walking around with a donkey, the former tall, slim Saint Nick was starting to put on a little weight around the middle. In fact, according to Moore, his belly "shook when he laughed like a bowl full of jelly". Maybe this was the reason he gave up his donkey for a more comfortable means of travel.

A sleigh pulled by eight tiny reindeer can, of course, carry a heavier payload than a single donkey. Children picked up on this quickly and instead of leaving wooden shoes on the hearth, they started hanging stockings by the chimney. Instead of a few nuts and fruits in a wooden shoe, Santa started leaving a whole sock full of goodies.

Moving up from a donkey to a reindeer sleigh did a lot for Santa's image. In the early 1900's, by the time he had starting posing for Coca-Cola ads, Santa had put on even more weight. Riding in a sleigh instead of walking will do that. He had also started wearing fur lined red suits, bought a condo at the North Pole and started hanging out with elves. Looking for a vehicle with a little more flash and power, Santa added Rudolph to the team in 1939. Sounds like a midlife crisis, doesn't it?

Rudolph the Red Nosed Reindeer was the result of an advertising campaign by the Montgomery Ward department store in Chicago. In 1939, shoppers were given a small book that contained the poem as a gift for shopping at the store. The book was reprinted many times and in 1949 Gene Audrey recorded the song. As predicted by all of the other reindeer, Rudolph went down in history.

Happy Holidays!

Southern Feeder Cattle Survey Results

Johnny Rossi
Extension Animal Scientist

Feedyards in the High Plains were surveyed to and asked to critique the quality and consistency of Southern feeder cattle and calves. Issues and problems with these cattle were quantified and insight into how the cattle can be improved were made. The survey was conducted by Slaven Associates of Cimarron, Kansas.

The survey indicated that cattle feeders are more knowledgeable of Southern feeder cattle performance and carcass characteristics than they were a decade ago. Much of this was due to the increase use of grid and formula marketing. In the last ten years, survey respondents indicated cattle improved the most in daily gains and feed efficiency. Health was rated the lowest, with little improvement in the last ten years. Forty-five percent of cattle feeders indicated that health was the same or worse than a decade ago. Eighty-eight percent of respondents indicated that Southern cattle are worse or much worse than Northern cattle for health, performance, and carcass characteristics. Clearly, cattle feeders believe Southern cattle are inferior to Northern cattle.

There was a strong indication that cattle producers should change the genetics of their herd. Most feeders believe that cattle are fed long enough to express their genetic potential for carcass quality, and changing the genetics is the only way to improve carcass traits. As expected, a crossbred animal is preferred. The recommended breeding percentages were 25 to 50% exotic, 25 to 75% British breeds, and 25% or less heat adapted breeds. Based on the cattle feeders response, virtually all breeds can be used in a planned crossbreeding program to yield a desirable feeder calf. Cattle feeders believe that genetics should be changed to improve the marbling ability of the cattle more than the overall performance. Selling on a grid is rapidly increasing, with 85% of respondents selling at least some of their cattle via a grid or formula. This survey show the importance of a planned crossbreeding program that takes into account both performance and carcass traits.

Cattle feeders are willing to pay premiums for cattle with a strong health history and a desirable breed composition. Thus, more feeder calf sales that document health history and breed composition are needed. There was a strong desire to not have any horned or bull calves leaving the Southeast. Calves coming into feedlots as bulls or with horns create a huge management problem.

The most often cited problems with Southern cattle was poor health, lack of uniformity, and poor marbling ability. The poor marbling ability of Southern as compared to Northern cattle was blamed almost solely on genetics. Southern cattle were rated highest for daily gains and feed efficiency, but were still rated lower than Northern cattle for health, performance, and carcass characteristics. Producers that are serious about making a profit need to take this information and employ necessary changes to upgrade the quality of Southern cattle.

Hybrid Catfish Hatcheries are Needed

Gary J. Burtle
Extension Aquaculture Specialist

The hybrid catfish has become popular in areas of the Southeast where hatcheries have been successful in producing enough fingerlings to offer to the local catfish producers. In some areas, catfish producers are willing to pay two times the value of channel catfish fingerlings in order to obtain the hybrid. The short fingerling supply and high demand has made the hybrid difficult to obtain by most of the southeastern catfish producers.

Production of the hybrid catfish fingerling starts with rearing of brood stock that can be used in hormone induced spawning. Female channels can be selected after four years, but the blue catfish males must be five years old before they can be used for hybridization. The current hatchery method requires that the male blue catfish be sacrificed in order to collect enough sperm to fertilize the eggs from about three females. The females must be injected with carp pituitary or synthetic LHRH in order to induce ovary and egg development. Then the eggs are stripped from the female channel catfish at just the right time, exposed to blue catfish sperm, hydrated to induce fertilization, and hardened in water before incubation. From this point hybrid catfish fingerling production is similar to channel catfish fingerling production.

Hormone induced spawning is common in the production of grass carp, hybrid striped bass, and many ornamental fish. However, most catfish hatcheries are not familiar with hormone techniques. Channel catfish spawning does not require the use of hormones and is usually accomplished in open ponds. The benefits of using hybrid catfish may provide an incentive for catfish hatcheries to try hybrid production.

In a time when catfish prices are lower than they were two years ago, improved survival and weight gain should be of interest to most catfish producers. The hybrid catfish grows 10 to 30% faster than the channel catfish and is more successful at densities in excess of 10,000 catfish per acre than the channel catfish is. The hybrid catfish does not contract the bacterial disease, ESC, as severely as the channel catfish does. This advantage supports the need for more of these fish to be utilized by the catfish industry.

Hybrid catfish fit the recreational catfish market well. They are easier to catch by hook and line than channel catfish are. Hybrids are also easier to capture with seines because they tend to stay in mid-water rather than near the pond bottom. So, if your market involves live hauling to fee-fishing lakes, the hybrid catfish may improve your sales.

If you are interested in obtaining the hybrid catfish or in starting a hatchery that induces spawning to produce the hybrid, please contact Gary Burtle, 229-386-3364, fish@tifton.cpes.peachnet.edu.

Using Pelvic Measurements to Reduce Dystocia

Timothy W. Wilson
Extension Animal Scientist – Beef Cattle

It has been estimated that calving difficulty results in the loss of \$500 million to \$750 million annually nationwide. Many management practices are used to help prevent calving difficulty. Some of these include adequate heifer development, proper bull selection, and body condition score at calving.

Heifer selection is an important process that should follow predetermined guidelines. One measurement that can be useful when selecting heifers to help prevent calving difficulty is pelvic area.

Pelvic area is a measurement taken by determining the vertical and horizontal distance within the birth canal. These measurements are recorded in centimeters and are multiplied together to give the total area reported in square centimeters. Vertical measurements range between 12 and 15 cm with horizontal measurements ranging between 10 and 12 cm. It has been reported that the average pelvic area growth can be calculated at 0.27 cm²/day from yearling to two years of age, and continues at a slower rate till maturity (G.H. Deutscher, NebGuide G88-895).

Pelvic area tends to be highly heritable and is genetically correlated with other traits (G. H. Deutscher, NebGuide G88-895) . Selection for increased pelvic area alone can have disastrous effects. Pelvic area when combined with other trait selection can be very useful in the heifer selection process.

Pelvic measurements can be determined by using a Rice Pelvimeter, Bovine Pelvic Meter or Equibov Bovine Pelvimeter. Care should be taken to place the measuring device properly within the rectum.

Research from South Dakota and Nebraska have reported a pelvic area and calf birth weight ratio (factor) (Table 1 and 2). A 600-lb heifer at 12 - 13 months of age would have a ratio of 2.1 (Table 1). If this heifer had a pelvic area of 180 cm², she should be able to deliver a calf that weighs approximately 86 lbs at 2 yrs of age (Table 2). Calf weight can be determined by dividing the pelvic area by the birth weight ratio (factor). In this case, $180 \div 2.1 = 86$.

Using pelvic area as a tool in the heifer selection process can be very useful in preventing dystocia. If you have any questions regarding this measurement or its use, contact your local veterinarian, county extension agent or state beef cattle specialist.

Table 1. Using pelvic measurements to estimate deliverable calf size (birth weight).

Heifer Weight, lb	Age at measurement, months			
	8 - 9	12 - 13	18 - 19	22 - 23
500	1.7	2	-	-
600	1.8	2.1	-	-
700	1.9	2.2	2.6	-
800	-	2.3	2.7	3.1
900	-	2.4	2.8	3.2
1000	-	2.5	2.9	3.3
1100	-	-	-	3.4

(Source: G. H. Deutscher, NebGuide G88-895)

Table 2. Pelvic area/calf birth weight ratios for various heifer weights and ages to estimate deliverable calf birth weight.

Time of Measurement	Heifer Age, mo.	Heifer WT., lb	Pelvic Area cm ²	Pelvic Area/Birth Wt., Ratio	Estimated Calf Birth Wt., lb
			140	2.1	67
Before Breeding	12 - 13	600	160	2.1	76
			180	2.1	86
			180	2.7	67
Pregnancy Exam	18 - 19	800	200	2.7	74
			220	2.7	82

(Source

e: G. H. Deutscher, NebGuide G88-895)

Dates to Remember	
December 12, 2002	2002 Calhoun Bull Evaluation Sale
February 11-12, 2003	Stallion Management & Reproduction Short Course, Athens
February 12, 2003	UGA Bull Sale, Athens
February 13-14, 2003	Mare Care & Reproduction Short Course, Athens
February 14-15, 2003	GCA Convention, Athens
February 19-23, 2003	GA Jr. National, Perry
March 4, 2003	Beef Cattle Short Course, Tifton
March 5, 2003	Tifton Bull Sale, Tifton

Using Cotton Stalks to Decrease Winter Feeding Costs

Johnny Rossi
Extension Animal Scientist

Winter feeding costs account for about 40% of the yearly costs of maintaining a brood cow. Utilization of crop residue is an excellent way to decrease winter feeding costs. Grazing cotton stalk residue is not a new idea, but the value of cotton stalks is not well established. Some Georgia producers have used cotton stalks for grazing, but the opportunity exists for many more producers to take advantage of this cheap feed resource.

A trial was conducted last year at the Southwest Georgia Experiment Station in Plains to determine the performance and feed costs of wintering cows on cotton stalks or hay. Fifty-four cows were divided into two groups and allowed to graze cotton stalks or were fed round baled coastal bermudagrass hay. Both groups were fed a free-choice mineral. Cows were due to start calving in mid-January. The cows averaged 1359 lbs and were in a body condition score of 5.5 at the beginning of the trial. The trial lasted from October 25 to Dec 12th. The cows grazed 30 acres of cotton stalks for a total of 49 days. Total weight gain was 48 lbs for the cows fed hay and 15 lbs for cows grazing cotton stalks. Because both groups of cows were in good condition, little weight gain was desired. Likewise body condition was essentially unchanged during the trial for each group. Producers can expect similar performance when wintering mature gestating cows in good condition on hay or cotton stalks. If body condition of cows is less than 5, supplemental feed will be needed to increase body condition score.

The amount of cotton stalk residue available for grazing was determined by collecting all of the cotton stalk residue in two, nine square foot areas per acre. The amount of cotton stalk residue was sampled immediately before and after the cows grazed the cotton stalks. At the beginning of the trial, there was 4,487 lbs of cotton stalk residue per acre. At the completion of the trial, there was 2,873 lbs of cotton stalk residue per acre. There was a disappearance of 1,614 lbs per acre. Cows used about a third of the available cotton stalk residue. Cows will eat little if any of the actual stalk. The residue eaten by the cows is the leaves, lint, and seed of the cotton residue. Cows should be removed when no cotton lint and all leaves are eaten, or if cows are starting to lose body condition.

The primary reason to graze cotton residue is to decrease winter feeding costs. Cows fed the hay consumed 21.2 lbs per day. Valuing hay at \$60 per ton, total cost for hay and mineral was \$0.68 per day. Cows grazing the cotton stalks cost \$0.10 per day for fencing and mineral costs. Total feed costs were \$33.32 for cows fed hay and \$4.90 for cows grazing cotton stalks. Total feed savings were \$28.32 or \$0.58 per day for the cows grazing cotton stalks. Each acre of cotton stalk residue was worth \$25.52. This will vary with the number of days that cows can graze the cotton residue. The rule of thumb is one acre will maintain a cow for 30 days. In this study, one acre maintained a cow for 44 days. As mentioned above, cows should be removed when no cotton lint or leaves are available for grazing.

There are some potential problems that can occur when grazing cotton stalk residue. This study was done with dry pregnant cows and results should not be applied to lactating cows. Lactating cow will likely need supplemental energy and/or protein if grazed on cotton stalk residue. Bulls may have reduced fertility because of the gossypol toxicity. To be safe, do not allow bulls to graze cotton fields.

This trial demonstrates that dry pregnant cows can be maintained on cotton stalk residue prior to calving. There was no difference in weight gain or body condition score between cows wintered on hay or cotton stalks. Feed savings were \$0.58 per cow per day when wintered on cotton stalks versus hay. This trial was conducted with dry pregnant cows, therefore, caution should be taken when applying these results to lactating cows, stocker calves, or replacement heifers. Cotton stalk residue has the potential to greatly reduce winter feeding costs of spring calving herds.

Catfish Production Training and Certification Course

Gary Burtle
Extension Aquaculture Specialist

After a great response to in-depth training in catfish production in 2002, this course sequence will be again offered in 2003. Potential producers as well as beginning producers will benefit from this course. The course has also been attended by county agents.

Five full day meetings held on Saturdays, January 11, February 8, March 1, April 5, June 14, 2002. 9:00 AM to 4:00 PM. Min 5, Max 10. Cost for the training is \$100.00 per day, must attend a minimum of four sessions for certification. County agents may attend for a reduced cost.

Session I. Economics of catfish production, harvesting and marketing catfish products
Session II. Pond system design and water management
Session III. Catfish nutrition and feeding practices
Session IV. Catfish spawning and genetics
Session V. Aquatic nuisance control and fish diseases

Location:

NESPAL (National Environmentally Sound Production Agriculture Laboratory, Rainwater Road, Tifton.

Course Philosophy:

Practical management methods will be presented in a classroom setting for part of each session followed by demonstrations and laboratory experience with actual catfish, equipment or software. Some course objectives will be accomplished using student teams to develop solutions to management questions.

Expected Results:

Students will gain proficiency in the use of record keeping and report generating software for fish farm management. Knowledge of equipment calibration, operation and maintenance will be gained in order to assure effective water quality management on catfish farms. Catfish nutrition, diseases, spawning, and environmental requirements will be learned so that decision making is based on the biological limits of the species.

Make application to by mail: Animal & Dairy Science Department, The University of Georgia, P. O. Box 748, Tifton, GA 31793-0748.

For additional information contact: Dr. Gary Burtle, 229-386-3364, fish@tifton.cpes.peachnet.edu. Provide the following information for application: Name, Address, Phone number, E-mail address, and prior experience with aquaculture.



Market News Branch
P O Box 86
Thomasville, GA 31799
Tel 912-226-1641



Agricultural Building
Atlanta, Georgia 30334

WEEK ENDING: 11/15/02 The Cooperative Extension Service would like to thank Terry Harris for submitting this information.

GEORGIA CATTLE: RECEIPTS: 10,600 LAST WK 11,000 YEAR AGO 12,200

FEEDERS	STEERS	MED & LARGE 1	HEIFERS
	100.00-113.00	300/350 LBS	81.00-91.00
	95.00-105.00	350/400	76.00-86.00
	85.00-95.00	400/450	73.00-83.00
	78.00-89.00	450/500	72.00-82.00
	75.00-85.00	500/550	69.00-78.00
	70.00-80.00	550/600	67.00-76.00
	69.00-77.00	600/650	65.00-75.00
	67.00-75.00	650/700	65.00-75.00

SLAUGHTER COWS	% LEAN	WEIGHT RANGE	PRICE RANGE
	75-80%	850-1200 LBS	30.00-34.00
	80-85%	850-1200 LBS	32.00-39.50
	80-86%	OVER 1200 LBS	32.00-38.50
	85-90%	800-1200 LBS	30.00-34.00

5 Area Daily Wtd Average - Texas/Oklahoma; Kansas; Nebraska; Colorado; and Iowa/So Minnesota Feedlots:

Steers...Select/Choice 65-80% Weighted Average Price Range 65.50-68.50
Heifers..Select/Choice 65-80% Weighted Average Price Range 66.00-68.50

By-Product Drop Value (Steer)...Hide and Offal Value 7.71 /cwt.

Box Beef Cut-Out Value Choice 1-3 550/750 LBS. 113.83
Select 1-3 550/700 LBS. 107.91

Georgia Hogs: GA-FL-AL Direct Area Receipts 4800 Trends 2.00 lower

US 1-2 220/260 LBS. 26.00-27.50 Sows 300/500 LBS. 11.00-16.00 500-UP 16.00-21.00

FEEDER PIGS	GEORGIA	TENNESSEE	PRICE RANGE	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 .50 lower

BARROWS & GILTS 49-51% LEAN 185 LB CARCASSES RANGE 33.32-40.54 WTD AVG. 36.91

HORSE REPRODUCTION SHORT COURSE SERIES

Two separate Horse Short Courses will be presented. Each of the two short courses will be presented in a morning lecture-discussion and afternoon laboratory format. Morning lectures and discussions will provide insight and background information and answer questions. The afternoon laboratory sessions will allow participants to gain hands-on experience.

February 11 - 12, 2003

Stallion Management & Reproduction

Topics to be covered include:

- ▶ Stallion reproductive anatomy & physiology
- ▶ Management of the stallion prior to and during breeding season
- ▶ Breeding soundness exam
- ▶ Collection & evaluation of semen
- ▶ Semen extenders & uses
- ▶ Semen handling for artificial insemination & shipping
- ▶ Freezing semen
- ▶ **(Will accept a limited number of stallions for semen evaluation)**

February 13 - 14, 2003

Mare Care and Reproduction

Topics to be covered include:

- Maiden mare care prior to breeding
- Pregnant mare care pre-foaling
- Foaling
- Post foaling mare care
- Foal care
- Reproductive anatomy & physiology
- Teasing and breeding
- Artificial insemination
- Palpation and ultrasound
- Manipulation of estrous cycle
- Embryo transfer

Lectures will be given at The University of Georgia Animal/Dairy Science Livestock Instructional Arena, located on South Milledge and Simonton Bridge Roads. Lectures will begin at 8:00 AM each day. **Registration** will be from 7:30 AM - 8:00 AM on the first day.

Each short course is limited to 25 participants. Registration will be accepted on a first-come basis. You may register for each Short Course individually for \$285.00 per course or for both courses at a discounted rate of \$450.00. Farms sending two or more persons will receive a 10% discount per registration fee. This fee covers comprehensive lecture and laboratory sessions, breaks, transportation to and from the laboratories and writing materials. Cancellation prior to the postmarked date will receive a full refund. Cancellation thereafter up to the Short Course day will forfeit \$50.00 of their registration fee. Checks should be made payable to the Georgia 4-H Foundation. **Deadline - January 24, 2003.**

After you are accepted into the course, a notice of confirmation will be sent with directions to the UGA Livestock Instructional Arena.

Short Course participants are responsible for making their own motel reservations. Following are some motel listings:

-UGA Continuing Education Center (706-542-6364)
 -Holiday Inn (706-549-4433)
 -Holiday Inn Express (706-546-8122)

-Courtyard by Marriott (706-369-7000)
 -Suburban Lodge (706-208-8812)

For questions, call (706) 542-1852.

REGISTRATION FORM

<input type="checkbox"/> Mare Care and Reproduction \$285.00 ea.	=		NAME _____
<input type="checkbox"/> Stallion Management and Reproduction \$285.00 ea.	=		ADDRESS _____
<input type="checkbox"/> Attend Both Short Courses \$450.00	=		CITY _____ ST _____ ZIP _____
<input type="checkbox"/> Farms with Two or More Persons (10% Discount Per Registration Fee)	=		PHONE () _____
<input type="checkbox"/> TOTAL	=		BREED INTEREST _____

Return check made payable to the **Georgia 4-H Foundation** and registration form to:

Horse Short Courses, c/o Dr. Gary Heusner, Animal Science Complex - UGA, Athens, GA 30602-2771