

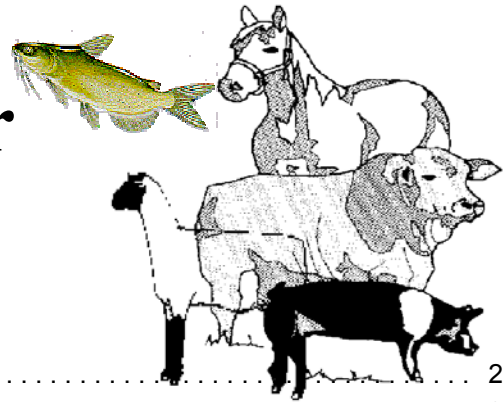
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Animal and Dairy Science Department
Rhodes Center for Animal and Dairy Science

Livestock Newsletter

July/August 2004

<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

LIVESTOCK NEWSLETTER

July/August 2004

AS-1

Using Citrus Pulp in Beef Cattle Diets

Johnny Rossi
Extension Animal Scientist

Citrus pulp is a by-product of citrus processing plants that produce juice for concentrate. The remaining peel, seeds, and rag are then dried to 10% moisture and sometimes pelleted prior to feeding to cattle. Citrus pulp is seasonally available and the supply peaks during the winter months. Citrus pulp is usually marketed as a blend of both pelleted and loose pulp. Citrus pulp that is marketed as 20% pulp would contain 20% loose pulp and 80% pelleted pulp.

The nutrient content of citrus pulp is approximately 80% TDN, which is similar to commonly fed by-products soyhulls, corn gluten feed and wheat middlings. The crude protein content is about 6.5%, which is less than required by beef cattle. Therefore, forages should be analyzed for crude protein prior to feeding with citrus pulp. An additional protein supplement may be needed when feeding citrus pulp to beef cattle. Citrus pulp is high in calcium (1.9%) and low in phosphorus (0.12%). A low calcium mineral supplement that supplies phosphorus should be selected when feeding citrus pulp.

Citrus pulp is high in digestible fiber, which make it an excellent energy supplement to hay or pasture. There is very little risk of acidosis or bloat when feeding citrus pulp. Citrus pulp is not as palatable as most by-products and grains and cattle may take several days to begin consuming the desired amount. Young cattle may refuse to eat more than 1% of body weight of citrus pulp. Citrus pulp should be limited to 40% of the diet or less. Above this level, consumption can become a problem. In addition cattle will perform poorer than expected based upon energy concentration of citrus pulp. Most by-product feeds can replace corn on a 1:1 basis when fed at less than 1% of body weight. However, when feeding the same by-product at higher levels, performance is poorer for the by-product feed compared with corn grain. In most situations, five to ten pounds of citrus pulp should provide adequate energy for lactating cows fed hay.

Citrus pulp is low in protein and an additional protein supplement will be needed if hay is less than 11% crude protein when feed lactating cows. Dry cows need less protein and will not need additional protein unless the hay is below 8% crude protein. Feeds that can deliver additional protein are cottonseed meal, soybean meal, distillers grains, corn gluten feed, whole cottonseed, and commercial protein supplements.

Poultry Litter Feeding Update

Johnny Rossi
Extension Animal Scientist

On January 26, 2004, the FDA announced new safeguards to strengthen the existing firewalls that protect Americans from bovine spongiform encephalopathy (BSE). One of the new safeguards announced by the FDA was to ban the use of poultry litter as a feed for ruminant animals. Poultry litter may legally contain protein that is prohibited in ruminant feed such as meat and bone meal. The poultry feed can spill in the chicken house and then be collected as part of the poultry litter and fed to livestock. The ban was to take effect when it was published in the Federal Register. However, the ruling has not been published at this time and the FDA is considering implementing other safeguards and may not ban the use of poultry litter as a feed ingredient for beef cattle.

The FDA is currently receiving comments on the complete ban of specified risk materials in all animal feeds. Specified risk materials are the brain, eyes, skull, and spinal cord of all cattle over 30 months of age and a portion of the small intestine and tonsils of all cattle regardless of age. Banning the specified risk materials from all animal feeds would eliminate them in poultry feed, which should eliminate the risk of spreading BSE by feeding poultry litter to cattle. The final ruling may not be determined until early next year. At this time, it looks like poultry litter may be ok to feed in the future because it will not contain any specified risk materials. Presently, poultry litter can still be fed to cattle. However, there is a risk of making any long term plans for feeding poultry litter as the FDA may still ban it as a feed for cattle.

Beef Cattle Research Update

Charles A. McPeake
Extension Beef Specialist

Summer 2004

Summarized by Michigan State University personnel

Following are reviews of research projects recently reported at scientific meetings or in scientific publications.
Please feel free to use as you see fit.

National Carcass Merit Project Summary

The National Cattlemen's Beef Association (NCBA) has published a summary report of the national Carcass Merit Project (CMP) which was initiated in 1999 with check-off funds, along with support from 13 breed associations representing 14 breeds. One objective of CMP was to build a database from which breeds could develop EPDs for tenderness. Another objective was to validate 11 previously discovered Quantitative Trait Loci (QTL; regions on chromosomes where genes may be located) that are related to certain carcass traits of economic importance such as tenderness, marbling, fat thickness, carcass weight, ribeye area, etc. Still another objective was to conduct an economic analysis to estimate the increase in price and the increase in beef consumption that might result from an improvement in tenderness. The CMP involved a grand total of over 8,500 progeny of the most widely used sires within their respective breeds.

Tenderness Analysis

- The range of Warner-Bratzler Shear Force (WBSF) means for sires within breeds ranged from 1.7 lb in the least variable breed to 6.6 lb in the most variable breed.

- The range in WBSF values across breeds was quite large at 8.9 lb.
- The range in WBSF values among sires across breeds was a dramatic 13.8 lb.
- The genetic correlations between WBSF and sensory panel tenderness scores were strong, indicating that WBSF is a reliable measure of consumer satisfaction. The genetic correlations between marbling and sensory panel scores were favorable, but of considerably less magnitude.
- WBSF is a moderate to highly heritable trait (.43) indicating that it can readily respond to selection pressure.

QTL Analysis

- The QTL analysis involved 70 sires representing 2,615 progeny.
- Seven of the eleven QTLs showed significant effects for one or more traits.
 - QTLs 4 and 5 were significant for fat thickness.
 - QTL 6 was significant for WBSF, overall sensory tenderness, and ribeye area.
 - QTL 7 was significant for ribeye area, hot carcass weight, and juiciness.
 - QTL 8 was significant for WBSF, overall sensory tenderness, ribeye area, hot carcass weight, and flavor.
 - QTL 10 was significant for overall sensory tenderness and juiciness.
 - QTL 11 had significant effects on marbling.

Economic Analysis

- The economic model indicated that quality grade does not appear to be an adequate predictor of WBSF or sensory tenderness.
- A 10% difference in WBSF of steaks was predicted to result in the following increases in beef price: 1.41% for Prime, 2.49% for CAB, 3.55% for Choice, and 4.2% for Select. Thus, the greatest increases would be seen in Choice and Select.
- A 10% improvement in beef tenderness would appear to result in a 1% increase in industry revenue due to an increase in demand and greater total consumer expenditures for beef. This translates to approximately \$150 to \$170 million in increased revenue.

Industry Applications

- Shear force is a highly heritable trait that will respond to direct selection. Three breed associations have already completed and released tenderness EPDs on over 200 sires.
- As an outgrowth of CMP research, DNA tests for carcass traits are being commercially developed and marketed. There will likely be a proliferation of other such diagnostic tests in the future.
- QTL markers from CMP could be used effectively in intensive breeding programs for tenderness. Young bulls could be progeny tested in multiple sire matings to commercial cows and, at the same time, mated to seedstock cows to produce the next generation of herd sire candidates. Certain markers would be used to determine the parentage of the multiple-sired calves. If the carcass data on the commercial calves could be collected by 14 months of age, generation interval could be reduced to 2 years.
- Having a large unbiased resource database stands to be a major contribution of CMP to the U.S. beef industry.

Marination With Calcium Chloride Improved Eating Quality of Tough Steaks

Previous research has shown that marination of wholesale beef cuts with calcium chloride at 24 to 48 hours postmortem can improve tenderness. However, if this technology were to be adopted commercially, marination would likely occur at a central processing facility no earlier than 72 hours postmortem. In a four-city retail consumer study, Texas Tech researchers assigned non-electrically stimulated Standard-grade boneless strip loin subprimals to two treatments: 1) control, no marination; and 2) marination at 72 hours postmortem with a calcium chloride solution at 5% of subprimal weight. Shear force of strip loin steaks was significantly

improved with marination by 3.1 lb. Consumers scored marinated steaks significantly higher than control steaks in tenderness, juiciness, flavor, and overall quality. Consumers indicated they would pay \$0.43/lb more for steaks marinated with calcium chloride, adding \$21.64 to the value of loins from tough carcasses. The authors concluded that this technology could be used to improve the eating quality of steaks to the point at which consumers would be willing to pay a premium for the improvement (Carr et al. 2004. J. Anim. Sci. 82:1471).

Rate of Deposition of Marbling Differed from that of Other Carcass Tissues

A 2-year study was conducted at South Dakota State Univ. to determine the rate of development of intramuscular fat (IMF) relative to the development of other carcass tissues during the growth of nonimplanted steers. Angus steers of known parentage were sorted by age and by the EPDs of their paternal grandsires for marbling into high- and low-marbling groups so that steers with varying degrees of genetic potential were evenly distributed across five slaughter groups. Steers were fed a high-energy corn-based diet and allotted to the five slaughter groups which were targeted to achieve hot carcass weights (HCW) of 450, 550, 650, 750, and 850 lb over the course of the feeding period.

- Marbling groups did not affect backfat, ribeye area, yield grade, or marbling score.
- Increases in rib fat, KPH fat, total carcass fat, and yield grade followed a quadratic upward trend as HCW increased. However, marbling score increased in a straight-line linear fashion as HCW increased.
- No differences occurred in the pattern of marbling that were attributable to paternal grandsire EPD.
- Greater increases in marbling relative to total carcass fatness occurred at HCW of less than 660 lb.

The authors concluded that these results indicate marbling is not a late-developing tissue, but one that develops at a constant rate throughout the normal growth of cattle under typical high-energy feeding programs. This study suggests that restrictive feeding and management practices early in growth may compromise final quality grade if subsequent compensatory IMF development does not occur (Bruns et al. 2004. J. Anim. Sci. 82: 1315).

Staying on the Shelf Isn't Easy

Recent market research has shown that the probability of getting a new food product into the retail supermarket trade is extremely low—approximately 7 percent. In light of this, the beef industry has performed well. Since NCBA's check-off funded "New Products Initiative" was introduced 6 years ago in 1998, over 2100 new beef products have entered the marketplace. However, staying on the shelf is no easy task. The average supermarket has only 44,000 square feet of space for a whopping \$22,000 in products. Products that fail to perform are quickly replaced by those that will. Therefore, it is important for food companies to keep up with rapidly changing consumer needs and desires (SOURCE: supermarketguru.com).

Top Ten Grocery Retailers in U.S.

<u>Company</u>	<u>No. of Stores</u>	<u>Sales (billion \$)</u>
1. Wal-Mart	1,243	\$95.0 (est.)
2. Kroger Co.	3,685	\$51.8
3. Costco Wholesale Corp.	299	\$38.0
4. Albertson's	2,290	\$35.6
5. Safeway	1,793	\$32.4
6. Sam's Club	522	\$31.7
7. Ahold USA	1,633	\$25.1 (est.)
8. Supervalu	1,391	\$19.2
9. Publix	739	\$15.9
10. Fleming*	17	\$15.5

*Includes sales to SuperTarget and Kmart Super Centers.

SOURCES: Supermarket News, Sentinel research.

Future Trends

Trends in Today's Business World^a

There are three general trends taking place in the business world today, including the livestock industry:

- Increased focus on the customer.
- Interdependence among organizations and individuals. An increased emphasis on teamwork.
- Increasing emphasis on employee accountability.

^aAdapted from Dr. Lee Manzer, Prof. of Marketing, Oklahoma State University.

The Asian Century

"It has been said that while the last century was the American century, this century will be the Asian century. The economics of Asia are extremely resilient and are booming. Asia is going to present challenges as both a customer and a competitor to U.S. Agriculture."

--Steve Nicholson,
Doane market analyst

World Meat Outlook

In its 2004 world agricultural outlook, the Food and Agricultural Policy Institute (FAPRI), a joint project between Iowa State Univ. and the Univ. of Missouri, made the following long-term projections.

- Global per capita meat consumption is projected to reach 103 lb per person by 2013, compared to 93 lb in 2003. An increase in beef consumption is projected to parallel this overall increase.
- Driven by rising demand, total world meat production is projected to reach 232.4 million metric tons by 2013. This represents a 19.7% increase over 2003.
- With strong consumption growth in meat-deficit regions of the world, total world meat trade is predicted to increase from 11.5 million metric tons in 2003 to 14.8 in 2013. U.S. market share will approach 24% by 2013. This is a sharp increase from a market share of 14% in 2004, which resulted from the discovery of a single case of BSE.

Beef Breed Registrations

Ronnie Silcox
Extension Animal Scientist

The table below lists the number of annual registrations per breed as reported by the National Pedigreed Livestock Council. There are many small associations that register small numbers of cattle that are not members of the National Pedigreed Livestock Council. These are not included, but these would represent a very small percentage of total registrations. Purebred cattle provide the genetic material for the commercial cow herd and a look at purebred registrations gives some feel for what type of genetic material is entering the national cow herd. These registration numbers vary from year to year and some associations are promoting crossbred or percentage programs that may not be reflected in total registration numbers.

There are a few general observations that can be made. Angus is by far the most popular breed with close to 40% of the purebred registrations. British breeds (Angus, Hereford, Red Angus, Shorthorn) make up well over half of registrations. Continental breeds, with Charolais, Simmental, Limousin and Gelbvieh being the largest, make up over a quarter of registrations. American breeds (Brahman and Brahman influence) are just under 10%.

Beef Breed Registrations

Breed	Registrations	% of Total
Angus	281734	39.7
Hereford	71243	10.0
Charolais	47107	6.6
Simmental	47000	6.6
Limousin	44980	6.3
Red Angus	42178	5.9
Gelbvieh	31664	4.5
Shorthorn	22430	3.2
Brangus	22311	3.1
Beefmaster	21297	3.0
Salers	19315	2.7
Maine Anjou	11854	1.7
Brahman	11000	1.6
Chianina	8636	1.2
Santa Gertrudis	8000	1.1
Longhorn	7500	1.1
Braunvieh	4800	0.7
Corriente	3369	0.5
Tarentaise	1600	0.2
Piedmontese	783	0.1
Pinzgauer	664	0.1
Total	709465	

Source: National Pedigreed Livestock Council

Managing Watermeal and Duckweed in Georgia Farm Ponds

Gary Burtle
Extension Aquaculture Specialist

Two of the most common floating weeds in ponds are watermeal and duckweed. Both are difficult to control due to their fast growing habit and small size. Watermeal is harder to control than duckweed due to its very small size and lack of roots. The spread of both plant types is encouraged by waterfowl moving from one body of water to another. Boats and boat trailers also carry these plants into new locations. Here are some ideas that may help you manage these problem weeds.

Pond environments that encourage duckweed and watermeal growth have some characteristics in common. Ponds that are protected on two or more sides from wind action are subject to floating weed problems. The floating weeds are able to spread across the pond with little resistance. Wind may pile layers of the weed into pond corners so that some of the plants are shaded by plants on top of them, causing slower growth. Wind also mixes pond water allowing nitrogen and phosphorus from the pond bottom to be utilized by pond organisms and removed from the pond. Static waters tend to concentrate nutrients. Any source of nutrients such as fertilized pastures, septic seepage, or crop runoff will encourage plant growth. Watermeal and duckweed find shelter in areas with standing trees, snags, or brush. The points of attachment and protection from wind offered by standing vegetation allow these plants to get a start and escape chemical and biological control.

The contact herbicide diquat has been used to control these weeds in the past. However, certain species of duckweed have developed a resistance to diquat alone. A tank mix of diquat and copper are currently a good control for duckweed. Fine sprays and repeated applications must be used for duckweed control in order to reach most of the plants. Repeat treatments are probably unavoidable. A longer lasting chemical, fluridone, can control duckweed if the pond water does not exchange enough to dilute the treatment concentration. Both diquat and fluridone provide only partial control of watermeal. Grass carp will eat duckweed, but have difficulty controlling established duckweed infestations. Grass carp should be stocked before the duckweed or watermeal problems occur or after chemical control has reduced infestations to a level that the grass carp can manage. Standing vegetation protects floating weeds from grass carp.

Remove any of the conditions that lead to the duckweed infestation. Remove standing brush and trees. Clear trees from at least two sides of the pond. Avoid building ponds with high banks or in deep hollows. Build ponds with adequate watershed to keep the pond full and flushed, during periods of below normal rainfall. Small ponds surrounded by fertile pastures or crop land will need to be watched carefully for signs of weed growth.

A possible treatment for duckweed control involves a herbicide application of diquat (Reward) with a liquid copper formulation (copper ethanolamine complex similar to Cutrine-Plus). The two herbicides are mixed into a tank mix containing two parts of diquat and three parts of liquid copper (2:3). Some liquid copper formulations can be used at the rate of one part diquat to 2 parts liquid copper. For treatment of one surface acre, dilute 1.5 gallons of the diquat/copper mixture with 100 gallons of water and add non-ionic surfactant. Apply very evenly over the surface of the duckweed with a fine spray. This tank mix treatment is more effective than treating with diquat alone. A very important point for good control of duckweed or watermeal is the use of a large quantity of dilution water to apply the herbicide. Herbicide labels recommend from 50 gallons to 200 gallons of dilution water per surface acre of weed infestation. Always prepare to aerate ponds that have fish populations in order to avoid oxygen

depletion during herbicide treatment.

Using fluridone is an alternative that has gained in popularity in recent years. Fluridone prices have dropped to more acceptable levels. This chemical can control duckweed in a single application in most cases where the pond water is static. Control can last for several months. Repeat treatment is usually required the following year unless grass carp are stocked or the conditions favoring duckweed growth are changed. Watermeal is only partially controlled by fluridone and repeat treatment will be necessary at a high rate of application.

Once the duckweed is gone, keeping the pond clear is always a problem. As soon as possible after herbicide application, stock triploid grass carp at up to 20 carp per acre. Triploid grass carp are functionally sterile and are the only type allowed in Georgia. This fish is an exotic and must be stocked according to state and federal laws. Purchase the fish from sources that sell certified triploid grass carp. Remember to use 14 inch long grass carp (about one pound each) when largemouth bass are present. This size and density will allow for grass carp losses to predation and natural mortalities. Use a spillway fence to keep the grass carp in the pond during periods of pond overflow. Restock the grass carp every 6 to 8 years. Removal of large old grass carp is at the discretion of the pond owner. Large grass carp can be provide large portions of delicious white meat when properly prepared.

Remove the cause of the duckweed problem, if possible. Clear out standing trees and brush from the pond. Usually that must be done when the pond is empty, however some ponds can be lowered to expose shallow areas without complete draining. Open up forested areas so that at least one side of the pond is exposed to wind action. Wind will keep duckweed pressed against the shore and limits pond surface coverage. An alternative is to install an aerator that causes surface disturbance and helps push the duckweed to the pond edge. Wind and aeration help stir the water column so that nutrients, particularly nitrogen, are brought up near the water surface. Over time, nutrients are leave the pond through volatilization, assimilation by algae and fish, and fish removal.

Anon. 1983. How to identify and control water weeds and algae. Applied Biochemists, Inc. Mequon, WI, USA.

Lawrence, J. M. 1962. Aquatic herbicide data. Agriculture Handbook 231. USDA Agricultural Research Service.

Lawrence, J. M. and E. B. Hollingsworth. 1969. Supplement to aquatic herbicide data. Agriculture Handbook No. 231 supplement. USDA Agricultural Research Service.

Sutton, D. L. and V. V. Vandiver, Jr. 1986. Grass carp a fish for biological management of hydrilla and other aquatic weeds in Florida. Bulletin 867. Florida Agricultural Experiment Stations IFAFS, University of Florida, Gainesville, FL.

Plants That May Cause Reproductive Problems for Beef Cattle

Timothy W. Wilson
Extension Animal Scientist – Beef Cattle

Grazing options for cattle are usually reduced and the possibility of consuming poisonous plants increases during times of drought. There are many species of poisonous plants that can cause illness and death in livestock. Producers are encouraged to scan pastures for plants that may be toxic to cattle and either eliminate them or prepare grazing strategies that will prevent them from being consumed.

During the summer months, cattle that are on a controlled breeding season and have been bred to calve in the fall or spring months will be in the 1st or 2nd trimester of pregnancy. Nitrate accumulating plants and poison hemlock may cause reproductive problems in beef cattle. These types of plants may cause birth defects or even abortion in cattle if consumed during pregnancy.

Some plants commonly used in grazing programs accumulate nitrates which may result in death if they contain more than 1.5% nitrate dry weight (USDA, Poisonous Plant Research Laboratory) when consumed. Research published by the USDA reports that abortion and infertility can result from subacute (slight) nitrate poisoning. Testing field crops intended for livestock grazing such as millet, corn, sorghum, Johnsongrass and sudangrass for elevated nitrate content may be beneficial in preventing problems associated with nitrate toxicity.

Cattle that consume poison hemlock (*Conium maculatum*) between 40 and 70 days gestation may birth calves that have skeletal abnormalities (James et al., 1992). Under most conditions, cattle will not readily graze poison hemlock.

Although there are many plants that can severely impact beef cattle production, and not as many that cause reproductive problems, it is important to keep in mind that when cattle are malnourished, they will consume what is available.

For a detailed list of poisonous plants developed through the efforts of a multi-state project, refer to “Poisonous Plants of the Southeastern United States” online at <http://www.caf.wvu.edu/~forage/library/poisonous/index.htm>. A copy can be purchased from the University of Georgia Extension Service by contacting your County Extension Agent or the Extension Publications Editor. If you have any questions regarding poisonous plants that may cause problems with cattle, please contact your County Extension Agent, Extension Weed Specialist, or contact me at (912) 681-5639.

Weaning The Horse: A Most Critical Time

Dr. Gary Heusner
Extension Equine Specialist

It is the time of the year when the majority of foals are weaned. Possibly the most critical time in the growth and development of a horse is from weaning to twelve months of age. The weanling can no longer depend on the mare's milk and emotional support. The weanling should be consuming 1 to 1.5% of its body weight in a high quality feed formulated for weanlings and have access to a quality forage either as pasture or high quality hay.

Most foals should be weaned between the ages of four to six months of age due to the mare's declining milk production. Use any of the methods of weaning foals that reduce stress in the foal. The most traditional way to wean is to remove foals in pairs from the mares and place them in small pens or stalls. Pairing reduces loneliness; foals will eat sooner and more readily when paired. The stalls, pens or whatever area the foals are confined to must be safe because the foals often attempt to jump or climb out of the pens.

Another method of weaning, which is usually less stressful, is to gradually increase the time the foal spends away from the mare. This method is good when you have only one foal to wean. The best time to start is during feeding time. Separate the mare and foal by feeding them in separate stalls or paddocks where they can see each other. Gradually increasing the time the foal spends away from its mother will result in weaning. In two to three weeks time, most foals can be totally separated from their mothers.

Another method of weaning is to remove one or two mares at a time from a group of mares and foals. For example, if you have a group of six mares with foals, you would remove the first mare with the oldest foal when the foal is four to five months old. The mare is taken away out of sight and out of hearing. When the next foal reaches four to five months of age, its mother is removed and so on until all the mares have been removed and consequently the foals have been weaned.

This method of weaning works very well because:

1. The weaned foal remains in an area that is familiar to him. The weaned foal is not placed in a new area nor is this new area more confining;
2. The other foals in the herd, whether weaned previously or not weaned, have a calming effect on the newly weaned foal;
3. In using this method of weaning, the foals are usually not set back but continue to grow at or near the same rate as they were before weaning;

Whatever method is used to wean a foal, the important thing is to reduce stress. A stressed foal is more susceptible to injury and disease.

Mentioning disease, the six month old weanling should be started on a vaccination program. This is provided that the dam of the foal was vaccinated four to six weeks prior to the foal being born. Foals

who have received adequate levels of antibodies from the mare should not be vaccinated the first time until approximately six months of age. Maternal antibodies in foals will inactivate many vaccines if foals are vaccinated prior to six months of age. In other words, for many of the diseases for which a foal is vaccinated prior to six months of age, the foal will be unresponsive to the vaccine and you are wasting your effort and money and giving yourself a false sense of security. The American Association of Equine Practitioners now recommends the vaccination times listed in Table 1 for foals from which the mare has been vaccinated four to six weeks prior to foaling.

In the next newsletter diets and growth rates will be discussed for the weanling up to one year of age.

Table 1

<u>DISEASE/VACCINE</u>	<u>AGE IN MONTHS OF</u>		
	<u>FIRST DOSE</u>	<u>SECOND DOSE</u>	<u>THIRD DOSE</u>
Tetanus Toxid	6	7 to 8	8 to 9
Encephalomyelitis (EEE, WEE, VEE)	6 to 7	7 to 8	8 to 9
Influenza			
Injectable (killed)	6	7	8
Intranasal (modified live)	11	every 6 months	every 6 months
Rhinopneumonitis (EHV-1- and EHV-4)	4 to 6	5 to 7	6 to 8
Strangles			
Injectable	4 to 6	5 to 7	7 to 8
Intranasal	6 to 9	3 weeks later	
Rabies	6	7	12
West Nile Virus	3-4	4-5	5-6

Dates to Remember:

- August 19: Freshwater Prawn Workshop, Tifton, Aquaculture Unit**
- August 26: S.E. Georgia Beef Shortcourse, Evans County**
- September 1: Entry deadline for bulls at Tifton**
- September 6: Entry deadline for HERD at Tifton**
- September 27: Recreational Pond Renovation and Management Seminar, Bibb County**
- October 8-9: State Market Lamb Show, Perry**
- October 8-17: Georgia National Fair**
- November 12: Entry deadline for HERD at Calhoun**
- December 11: Calhoun Performance Tested Bull Sale, Calhoun**



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

Market News

GEORGIA LIVESTOCK



Agricultural Building
 Atlanta, Georgia 30334

WEEK ENDING: 7-30-04 The Cooperative Extension Service would like to thank Terry Harris for submitting this information.

GEORGIA CATTLE: RECEIPTS: 16,200 LAST WK 14,800 YEAR AGO 14,700

FEEDERS	STEERS	MED & LARGE 1	HEIFERS
	140.00-160.00	300/350 LBS	123.00-138.00
	130.00-150.00	350/400	116.00-131.00
	123.00-137.00	400/450	110.00-127.00
	115.00-128.00	450/500	108.00-120.00
	108.00-122.00	500/550	105.00-116.00
	107.00-118.00	550/600	100.00-114.00
	105.00-116.00	600/650	98.00-110.00
	101.00-114.00	650/700	95.00-110.00
SLAUGHTER COWS % LEAN	75-80% 850-1200 LBS		53.00-59.00
	80-85% 850-1200 LBS		54.00-63.00
	80-86% OVER 1200 LBS		54.00-65.00
	85-90% 800-1200 LBS		51.00-60.00

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

Steers...Select/Choice 65-80% Weighted Average Price Range 86.00-86.50
 Heifers..Select/Choice 65-80% Weighted Average Price Range 84.00-86.00

By-Product Drop Value (Steer)...Hide and Offal Value 8.56/cwt.

Box Beef Cut-Out Value Choice 1-3 550/750 LBS. 142.66
 Select 1-3 550/700 LBS. 137.15

Georgia Hogs: GA-FL-AL Direct Area Receipts 4300 Trends .50 lower

US 1-2 220/260 LBS. 56.00-58.00 Sows 300/500 LBS. _____ 500-UP _____

FEEDER PIGS	TRENDS		TRENDS	
	GEORGIA	TENNESSEE	GEORGIA	TENNESSEE
US 1-2 35/40 LBS.				
40/45				
45/50				
50/55				

IOWA-SOUTHERN MINNESOTA DIRECT HOGS: RECEIPTS TRENDS .08 lower
 BARROWS & GILTS 49-51% LEAN 185 LB CARCASSES RANGE 68.25-80.06 WTD AVG. 78.39