UNIVERSITY OF FLORIDA
IFAS EXTENSION

Animal Science Newsletter

March 2004

In This Issue...

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Dates to Remember

March

1	Livestock Judging Contest - Orlando, FL
3-4	West Florida Livestock Show & Sale - Quincy, FL
6	Small Farms Livestock Production Conference - Bartow, FL
9-10	FCA Legislative Quarterly Meeting - Tallahassee, FL
13	State 4-H Hippology Contest - Orlando, FL
20	County 4-H & Open Horse Show - Newberry, FL
25	NFREC Beef Cattle Field Day - Marianna, FL
27	Small Farms Livestock Production Conference - Sebring, FL

April

3	State 4-H and FFA Livestock Judging Contest - Gainesville, FL
10	Horse Judging Contest - Gainesville, FL
17	Meats Judging Contest - Gainesville, FL

NASS

Preliminary Ag Census Data has been released , based on the 2002 Census of Agriculture. Preliminary results show, among other things, the average age of American ag producers in 2002 was 55 years old; 27% of ag producers were women; and 90% of American's ag operations are still run by individuals or families and in most cases are small. In fact, 59% of ag operations had less than $10,000 in sales of ag products in 2002. For more information go to www.usda.gov/nass/.

Beef Management Calendar

March

- ☑ Fertilize pasture to stimulate early growth and get fertilizer incorporated in grass roots while there is still good soil moisture.
- ☑ Prepare land for summer crops.
- ☑ Begin grazing warm season permanent pastures.
- ☑ Check and fill mineral feeder.
- ☑ Observe bulls for condition and success. Rotate and rest if needed.
- ☑ Deworm cows as needed.
- ☑ Make sure calves are healthy and making good weight gains.
- ☑ Hang forced-use dust bags by April 1st for external parasite control or use insecticide impregnated ear tags.
- ☑ Identify, vaccinate, implant, and work late calves.
- ☑ Put bulls out March 1st for calving season to start December 9.
- ☑ Remove bulls March 22nd to end calving season January 1.

April

- ☑ Plant warm season annual pastures.
- ☑ Plant corn for silage.
- ☑ Check and fill mineral feeder.
- ☑ Check dust bags or apply treated ear tags.
- ☑ Check for external parasites and treat if necessary.
- ☑ Observe cows for repeat breeders.
- ☑ Deworm cows as needed if not done in March.
- ☑ Vaccinate against blackleg and brucellosis after 3 months of age and before 12 months of age.
- ☑ Market cull cows and bulls.
- ☑ Update market information and refine market strategy for calves.

May

- ☑ Remove bulls.
- ☑ Harvest hay from cool season crops.
- ☑ Plant warm season perennial pastures.
- ☑ Fertilize warm season pastures.
- ☑ Check mineral feeder.
- ☑ Check for spittlebugs and treat if necessary.
- ☑ Apply spot-on agents for grub and louse control.
- ☑ Check dust bags.
- ☑ Vaccinate and implant with growth stimulant any later calves.
- ☑ Reimplant calves with growth stimulant at 90-120 days, when you have herd penned.
- ☑ Dispose of dead animals properly.
- ☑ Update market information and refine marketing plans.
- ☑ Remove bulls May 21 to end calving season March 1.

Livestock Summary

Demand for beef continues to be strong into 2004, particularly for higher quality fed beef. The beef sector was forced to make many adjustments throughout 2003 but was helped by a very strong consumer and export market that evolved over the past few years.

Feedlots in December were less current and slaughter weights should increase from the lows that were experienced during the summer. Boxed beef prices declined from their $194 a cwt peak in mid-October to between $155-160 in mid-December.

Retail prices will continue to rise through late winter as the live/wholesale/retail prices adjust themselves to the rapid supply/price changes of 2003.

November's retail price for Choice beef rose sharply averaging a record $4.32 a pound, up to 10 percent from October's record, and up 29 percent from a year ago.

The retail and hotel/restaurant industries absorbed much of the price increase through the month of October as the wholesale to retail margin fell 41 cents a pound from $1.63 in July to $1.22 in October.

November, on the other hand, saw the wholesale to retail spread rise to $1.74 per pound.

Although current fed cattle and boxed beef prices are slightly off their highs, they are projected to remain well above any previous highs for the next couple of years as supplies continue to tighten.

Once December figures are calculated, the month's averages will likely remain 25 to 30 percent higher than what they were last year.

The beef industry will face challenges over the next couple of years to maintain adequate supplies for the various sectors of the domestic and international markets.

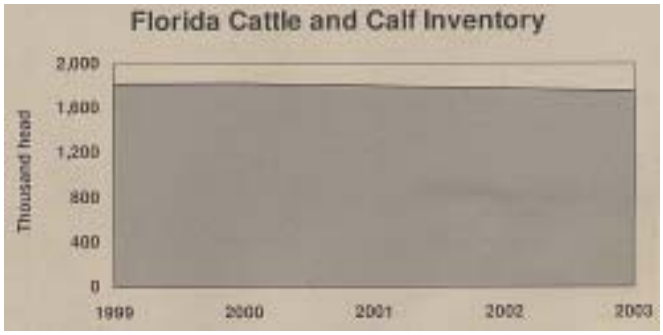
Market share is forecast to be lost to pork and poultry as the next expansion phase of the cattle cycle begins and more cows and heifers are retained.

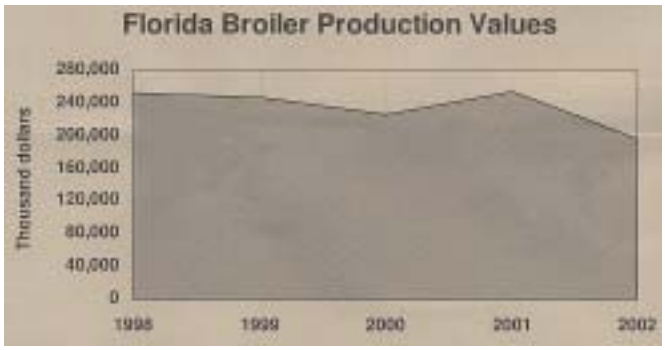
The better the industry can adjust to the declining higher quality beef supply over the next couple of years, the less downward price adjustment will be needed to gain back market share. Beef supplies are not predicted to rise until mid-2006 with market share having to be regained.

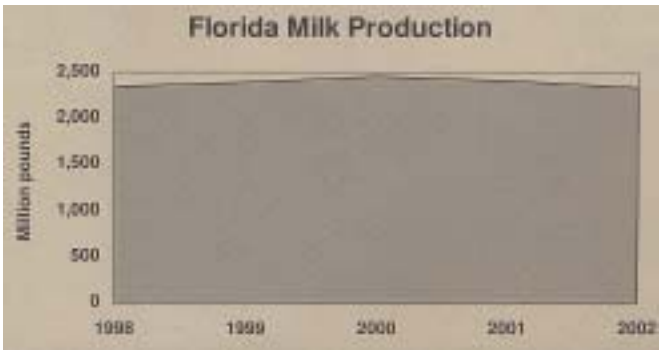
The USDA recently announced that DNA evidence now helps to verify that the BSE positive cow found in the Washington State originated from a dairy farm in Alberta, Canada. Research and preventative measures are on going. For more information, please visit the USDA website (www.usda.gov) or call 1-866-USDACOM (873-2266).

The New Year continues to be an interesting year for Florida's cow/calf operators while the ability to quickly adapt to the industry's ever changing needs is a vital ingredient in remaining viable.

Livestock Trends







SOURCE: The Florida Agri-Journal
Researched by Tony Young
Marketing Specialist I
Division of Marketing
Release - January 15, 2004

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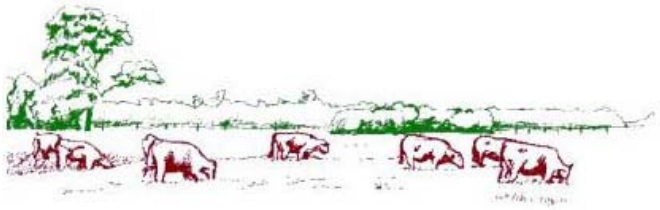

53rd Annual Beef Cattle Short Course

"Management Issues and Industry Challenges in Defining Times"

Hilton University of Florida Conference Center, Gainesville, Florida
May 5-7, 2004

Has the cattle industry been in more challenging times??? The discovery this past year, on December 23rd, of BSE in the United States has resulted in major changes in the way we conduct some aspects of the beef business and has accelerated and brought into focus procedures and processes that were being contemplated prior to December 23rd. Your marketing strategies may be effected by some changes at the processing level related to age of animal at the time of processing. Mandatory electronic individual animal identification and country of origin labeling (COOL) have become more urgent centers of discussion throughout the beef industry. Both will alter past farm and ranch procedures. The origin of

the cattle you produce will be more easily identified and you and the end user will know the carcass characteristics of those cattle. Although carcass characteristics are important, it is equally important to maintain proper genetic make-up of the cow herd to optimize production performance within the production environment. This year's Beef Cattle Short Course program is extremely important to you because it deals with these many current issues. Wednesday's program addresses issues related to BSE, the National Animal Identification System, changes in marketing strategies, and a marketing outlook. Thursday morning's program, sponsored by the American Breeds Coalition, examines the use of genetic markers for genetic selection, implications of beef-type evaluations and balancing production, environment, and the market place. A panel discussion with top geneticists, ranchers, feeders, processors, and retailers will respond to questions concerning the use of *Bos indicus* genetics for beef production. Thursday afternoon will be devoted to demonstrations and discussions of various products designed for individual animal electronic identification. The very important topic of effective and strategic beef cow herd supplementation will be discussed Friday morning accompanied by three break-out sessions designed to address the unique supplementation needs of the large southern ranches and of cattle producers in the central and in the northwest parts of Florida. There will be a breakfast Thursday morning sponsored by Lakeland Animal Nutrition and Alltech, Inc. with a discussion of the importance of selenium nutrition in beef production. Thursday's lunch will be sponsored by Farm Credit Associations of Florida and the Thursday afternoon break will be sponsored by Helena Chemical Company. Of course, there will be the traditional Cattlemen's Steak-Out on Thursday evening. The cattle industry is always exciting and always challenging. Recent events make the information you will gain at this year's Beef Cattle Short Course necessary for meeting the challenges you face in your beef cattle business. For more information or to register, please visit the website at http://www.animal.ufl.edu/extension/beef/2004BCSC.shtml.

New Meeting Location for the 53rd Annual Beef Cattle Short Course

The 53rd Annual Beef Cattle Short Course will be held at the Hilton University of Florida Conference Center, Gainesville, Florida. This is a new location for the short course and the accommodations should prove to be a great enhancement in both the short course and trade show. The Hilton University of Florida Conference Center is located at 1714 SW 34th Street, Gainesville, FL. You may obtain more information about this new meeting location by visiting the Beef Cattle Short Course web page located at http://www.animal.ufl.edu/extension/beef/2004BCSC.shtml.

Agenda

"Management Issues and Industry Challenges in Defining Times"

Wednesday, May 5, 2004

AM

11:00 Registration *(Hilton UF Conference Center)*

PM

Presiding: *F. Glen Hembry*, Department of Animal Sciences, UF/IFAS, Gainesville, FL

1:00 Welcome

1:15 **Remarks** - *Roger West*, President, Florida Cattlemen's Association, Gainesville, FL

1:35 **Market Outlook for 2004 and Beyond** - *Randy Blach*, Cattle-Fax, Englewood, CO

2:25 **Refreshment Break**

Presiding: *Todd Thrift*, Department of Animal Sciences, UF/IFAS, Gainesville, FL

2:45 **Under Construction: National Animal Identification System** - *Glen Smith*, Ag Infolink, Macon, GA

3:30 **Political Climate of BSE and COOL: How Does it Affect You on the Ranch?** - *Bryan Dierlam*, NCBA, Washington D.C.

4:00 **Have Marketing Plans Changed Given the Ramifications of BSE and the Resulting Market Conditions?** - *Randy Blach*, Cattle-Fax

4:45 **Adjourn**

5:00 **Allied Industry Trade Show and Reception** - Several companies will have exhibits and representatives to answer your questions. Hors d'oeuvres provided compliments of the exhibitors. A cash bar is available for your enjoyment.

Thursday, May 6, 2004

AM

7:00 **The Importance of Selenium Nutrition in Today's Beef Production** - *Breakfast Sponsored by* ***Lakeland Animal Nutrition*** *and* ***Alltech,Inc.***

"Genetics, Breeds, and Breeding Programs for Profitable Beef Production in Florida" - Sponsored by the American Breeds Coalition - Braford, Brahman, Beefmaster, Brangus, Red Brangus, Santa Gertrudis, and Simbrah"

Presiding: *David Riley*, STARS, USDA, Brooksville, FL

8:15 **Genetic Selection Using Genetic Markers** - *Gary Hansen*, North Florida REC, UF/IFAS, Marianna, FL

8:45 **Implications of Breed Type Evaluations** - *Larry Cundiff*, Meat Animal Research Center, USDA, Clay Center, NE

9:30 **Connecting the Cowherd to the Carcass: Balancing Production, Environment and the Market Place** - *Bill Turner*, Texas A&M, College Station, TX

10:15 **Refreshment Break**

Presiding: *Bill Turner*, Texas A&M, College Station, TX

10:30 **Panel Response to Questions Concerning the Use of Bos indicus Genetics for Beef Production** -

- *Larry Cundiff*, MARC, USDA, Clay Center, NE; Breeds Research
- *Tim Olson*, Department of Animal Sciences, UF/IFAS, Gainesville, FL; Breeds Research
- *Dan Dorn*, Decatur County Feed Yards, Oberlin, KS; Feeder in Northern Plains
- *Doug Husfeld*, Hondo Creek Cattle Co., Edroy, TX; Feeder in Southern Plains
- *Glen Dolezal*, Excel Corp.,Wichita, KS; Major Packer
- *Dwain Johnson*, Department of Animal Sciences, UF/IFAS, Gainesville, FL; Meats Research
- *Joe Jordon*, Publix, Lakeland, FL; Retail
- *Charlie Bradburry*, Nolan Ryan's All Natural Tender Aged Beef, Huntsville, TX; CEO
- *Ferrin Squires*, Deseret Cattle & Citrus, St. Cloud, FL; Cow/Calf and Current FL Beef Council Chairman
- *Don Quincy*, Quincy Cattle Co., Chiefland, FL; Stocker

12:00 **Leave for Lunch at UF/IFAS Beef Teaching Unit** *(Sponsored by* ***Farm Credit Associations of Florida*** *- Directions to be provided)*

PM

Presiding: *Tim Marshall* and *Bob Sand*, Department of Animal Sciences, UF/IFAS, Gainesville, FL

2:00 **Demonstrations and Discussions -** The U.S. Animal Identification Plan calls for a madatory system of ID, using radio-frequency identification technology to allow traceback on any animal within 48 hours of a disease outbreak. Some of the companies involved with EID tags, readers, scale heads, software, and other data management systems will demonstrate their products.

- Micro Beef Technologies/Decatur County Feedyard

- AgInfo Link USA

- Emerge Interactive

- Alflex USA

- Temple Tag

- Y-TEX Corporation

3:00 **Break -** *Sponsored by* ***Helena Chemical Company***

4:30 **Adjourn**

6:00 **Cattlemen's Steak-Out** (Horse Teaching Unit Arena) - Transportation on your own

Friday, May 7, 2004

"Profitable Cow Supplementation for Florida Management Systems"

AM

Presiding: *F. Glen Hembry*, Department of Animal Sciences, UF/IFAS, Gainesville, FL

8:30 **Principles of Supplementing the Grazing Beef Cow** - *Matt Hersom*, Department of Animal Sciences, UF/IFAS, Gainesville, FL

9:15 **Breakout Session -** Each session will have a program designed to meet the needs of cattlemen in the designated areas. Specific cow supplementation systems will be presented and discussed by extension professionals located in these areas.

1. **Large South Florida Ranches**
Topics will include: Stockpiled Limpo Grass, Molasses, and Citrus Pulp
2. **Central Florida (Gainesville to Orlando)**
Topics will include: Current Producer Supplementation Perspectives, Supplement Nutrition and Economic Evaluation, and Animal Management to Optimize Supplementation
3. **Northwest Florida**
Topics will include: Methods of Harvesting and Utilizing Forage Options and Supplementing the North Florida Beef Cow

10:15 **Refreshment Break**

11:45 **Adjourn**

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New Calendar Website Lists UF/IFAS Statewide Extension Education Programs

Everything you need to know about statewide University of Florida IFAS Extension education programs is now just a few clicks away thanks to a new calendar of events Web site.

"Whether it's a workshop for master gardeners, a local 4-H club seminar, a field day for peanut farmers, a nutrition seminar for seniors, a parenting class, or hundreds of other timely topics, we have programs statewide," said Larry Arrington, acting dean for extension with UF's Institute of Food and Agricultural Sciences (UF/IFAS). "Our new calendar of events Web site is a convenient, one-stop source of information for what's going on in all 67 Florida counties."

Arrington said the extension service provides educational outreach programs for all Florida residents, both rural and urban.

"IFAS Extension is your gateway to the vast resources of UF, providing research-based information on a wide range of useful topics," he said. "To reach more people and expand our extension programs, we've added an online calendar — http://calendar.ifas.ufl.edu — that has a complete, up-to-date listing of extension workshops, seminars, training programs, field days, and planned events."

Millie Ferrer, interim associate dean for extension, said there are many programs going on at any given time. Many of these workshops provide continuing education units.

"In February, for example, there are 28 different courses or workshops scheduled around the state during a single week," she said. "Now Florida residents can click on programs and courses for a specific month, geographical area, or specific topic and get what they need quickly."

SOURCE: Larry Arrington, Professor and Associate Dean
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Longevity Attributes of *Bos indicus* x *Bos taurus* Crossbred Cows

F.A. Thrift and T.A. Thrift, Universities of Kentucky and Florida, respectively, recently published an excellent research review of the attributes of *Bos indicus* (Brahman) x *Bos Taurus* (European) crossbred cows. Brahman x European crosses are used widely in the southeastern and Gulf Coast regions of the U.S. Compared to *B. taurus* females, Brahman x *B. taurus* females express a higher level of preweaning productivity during a longer lifespan. The longevity observed in Brahman cross cows can be partially explained by their greater tolerance to hot, humid environments. In addition, Brahman cross cows are less subject to death or being culled for the following maladies: calving difficulty, external parasites (flies, ticks and mosquitoes), internal parasites, eye disorders (pink eye and cancer eye), teeth deterioration, and grass tetany. Research has clearly shown that longevity/stayability is related to greater economic efficiency in the cow herd. In contrast, longevity can tend to be shortened in some *B. indicus x B. taurus* genetic types due to udder/teat abnormalities and vaginal/uterine prolapses (Thrift and Thrift. 2003. Prof. Anim. Sci. 19 (5): 329).

New Growth Factor May Enhance Beef Cattle Efficiency

Alberta researchers recently isolated and cloned a DNA sequence that encodes a 53-amino acid protein, bovine epidermal growth factor (EPG). Previous research in rodents and rabbits demonstrated that EPG has the ability to stimulate proliferation of a number of cell types, including the epithelial cells that line the intestine. This work also indicated that EPG can improve the absorption of nutrients across intestinal membranes. Furthermore, oral administration of EPG reduced the incidence of intestinal infections and prevented weight gain reduction that results from infection. Future research by Alberta scientists will focus on the biological effect of bovine EPG in cattle. The objective will be to determine if EPG has the ability to enhance the efficiency of nutrient absorption and reduce intestinal disease in beef cattle. The authors stated that because of the positive effects of EPG on intestinal function, it may have great potential as a feed additive in cattle diets (Bilodeau-Goeseels et al. 2003. Agriculture and Agri-Food Canada, Lethbridge Research Centre).

Classifying Age of Cattle by Dental Eruption May Be Inaccurate

The age of 30 months and older is being used as the cutoff for the exportation of certain boneless beef products from Canada and the U.S. The same age is proposed for the exportation of live cattle. It has been assumed that cattle under 30 months of age cannot exhibit BSE (Bovine Spongiform Encephalopathy). Therefore, accurate determination of age becomes an important issue. Bovine dentition is being investigated as a method for age determination in cattle. Cattle are considered to be aged 30 months or older when they have more than two permanent incisor teeth erupted (the first pair of permanent incisors and at least one tooth from the second pair). Alberta Agriculture scientists recently reviewed earlier research that had been conducted on the relationship between cattle age and dental eruption. Their review of five different studies revealed it is likely that from 16 to 50 % of the youthful cattle harvested that are categorized as over 30 months of age using dentition are actually less than 30 months. Exports aside, discounts in the domestic market could result in a 30 to 50% loss in value compared to a carcass from a similar animal that was less than 30 months of age. Because these studies

are over 20 years old, the authors noted there is a need to characterize the current cattle population for the relationship between age and the eruption of permanent incisors (Basarab et al. 2003. Lacombe Research Centre Newsletter, Vol. 7, Issue 4).

High Starch Vs. High Fiber Diets for Early-Weaned Calves

In a Montana State University trial, spring-born steer calves were early-weaned at approximately 74 days of age. They were assigned to two different dietary treatments, a high starch diet consisting of 60% barley or a high fiber diet consisting of 60% wheat middlings. The diets were equivalent in crude protein and net energy. At weaning, all calves were weighed and ultrasounded to determine intramuscular fat (IMF). Ultrasound measurements were repeated approximately every 28 days until the steers were shipped to a commercial feedyard at 90 days after weaning. Steers were harvested at 307±7 days after weaning (at approximately 12.5 months of age). ADG was greater during the first 34 days after weaning for barley-fed than for wheat midds-fed calves (2.84 vs. 2.18 lb/d), but gains were similar for the entire 90-day growing period (average of 2.81lb/d). Barley fed calves deposited significantly more IMF early and retained this advantage until shipment to the feedyard (4.44 vs. 3.31%). However, by the time of harvest, there was no significant difference between treatments in IMF. The results of this trial appear to be inconclusive. Therefore, additional research may be needed to determine the effects of high starch vs. high fiber starting diets on performance and marbling deposition in early-weaned calves (Rainey et al. 2003. Montana State University Beef Newsletter, Vol. 9, No. 1, Dec. 2003).

A Vaccine and a Microbial Feed Additive Were Effective in Reducing Fecal Shedding of *E. Coli 0157:H7*

A trial was conducted at the University of Nebraska to evaluate the effects of two intervention strategies on the prevalence of *E. coli 0157:H7* shedding by feedlot steers. A total of 384 steers (768 lb) were assigned to one of four treatments: 1) Control; 2) a microbial feed additive, *Lactobacillus acidophilus*; 3) a developmental vaccine against *E. coli 0157:H7*; or 4) feed additive plus vaccine. Steers were fed for an average of 121 days and then harvested. Rectal fecal samples were taken from each steer for each of five periods and analyzed for the presence of *E. coli 0157:H7.*

There were no differences among treatments in feedlot performance or carcass characteristics. As shown in the table, the average prevalence of *E. coli 0157:H7* over the five periods was lower for the three treatments than for the Control steers.

Treatment	Prevalence, %	Percent reduction in prevalence from Control
Control	21.3	---
Microbial	13.3	37.5
Vaccine	8.8	58.6
Microbial & Vaccine	7.7	63.8

The differences for the vaccination and combination treatments were statistically significantly different from the Controls. Similar results were recently reported by Belk et al. (2004) in a study at Colorado State University. The Nebraska workers concluded that the two interventions may be used separately or in concert to effectively reduce fecal shedding of *E. coli 0157:H7* in feedlot cattle (Folmer et al. 2004. University of Nebraska Beef Cattle Report MP 80-A).

SOURCE: Harlan Ritchie, Steven Rust, and Daniel Buskirk
Beef Cattle Specialists
Michigan State University
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