



UNIVERSITY OF  
FLORIDA

EXTENSION

Institute of Food and Agricultural Sciences



# Animal Science Newsletter

May 2002

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## Dates To Remember

### May 2002

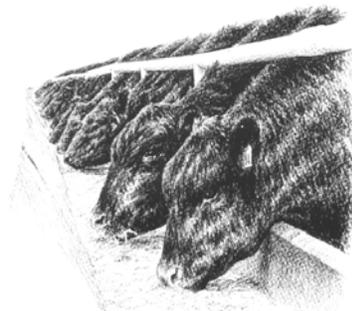
1-3	UF Beef Cattle Short Course – Gainesville
5-10	Florida International Trade Show – Ocala
16	Spring Rancher's Forum - Geneva
17	2002 Alachua County 4-H Awards Ceremony - Gainesville
18	Heart of Florida Club Calf Sale - Alachua
23	Subtropical Agricultural Research Station Field Day - Brooksville
23	Beef Forage Field Day - Brooksville

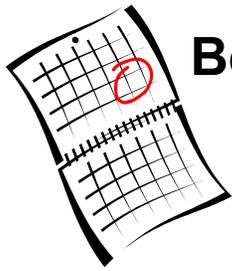
## Prepared By Extension Specialists In Animal Sciences

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- ❖ W. Taylor, Coordinator Youth  
Education/Training
- ❖ S.H. TenBroeck, Associate Professor,  
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### June 2002

TBA	CVM MBNA Equine Conference
TBA	Timpoochee Horse Camp - Timpoochee
9-15; 16-22; 23-29	Welaka Horse Camp - Welaka
19-21	2002 FCA Annual Convention and Trade Show - Marco Island
27	State Horse Demonstrations and Public Speaking* Contests Horse Quiz Bowl, Horseman of the Year Interviews





## Beef Management Calendar

### May

- 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.

### June

- Last date for planting sorghum.
- Check mineral feeder, use at least 8% phosphorus in mineral and not over 2 ½ to 1 calcium to phosphorus ratio.
- Check pastures and hay field for spittlebugs, mole crickets, and army worms. Treat if necessary; best month for mole cricket control.
- Check dust bags.
- Watch for evidence of pinkeye and treat.
- Utilize available veterinary services and diagnostic laboratories.
- Get heifers vaccinated for brucellosis if not already done.
- Pregnancy check cows.

### July

- Control weeds in summer pastures.
- Apply nitrogen to warm season pastures, if needed.
- Check mineral feeder.
- Check for army worms and mole crickets, and treat if necessary.
- Wean calves and cull cow herd.
- Watch for evidence of footrot and treat.
- Consider preconditioning calves before sale including vaccination for shipping fever and IBR at least 3 weeks before sale.
- Check dust bags.
- Update market information and plans.
- Revaccinate calves at weaning for blackleg.



## 2002 Corn Silage Field Day

*June 6, 2002*

*Department of Animal Sciences  
University of Florida, IFAS*

*Dairy Research Unit - Hague, FL  
SR441, North of Gainesville, on CR 237*

#### **A.M.**

- 8:30 Registration at the corn field
- 8:50 Introduction  
Dr. Glen Hembry
- 9:00 Demonstrations In The field  
Dr. Carroll Chambliss  
Jerry Wasdin  
Seed Corn Co. Representatives
  - Varieties
  - Roundup-Ready Corn Varieties
  - Bt Corn Varieties
  - 15 Inch Corn Rows
  - Herbicide Test\*
  - Waste Water And Non-Waste Water Areas

- 10:30 BREAK
- 10:45 \*Weed Control That Works For You  
Dr. Joyce Ducar
- 11:15 Old And New Concepts In Field Corn  
Production  
Dr. Carrol Chambliss
- 11:45 Travel to Shop Area

**P.M.**

- 12:15 Lunch (Provided)
- 1:00 Silage Inoculate Review  
Dr. Adegbola Adosegan
- 1:25 The Feed You Need: How Different Silages  
And Processing Fit  
Dr. Mary Beth Hall
- 1:50 Farm Measurements For Estimating Quality  
And Quantity Of Silage In The Silo  
Dr. Charlie Staples
- 2:15 Closing Comments

There is no cost to participate in the 2002 Corn Silage Field Day and lunch will be provided. To ensure your reservation for the sponsored lunch, please email a list of all registrants individually, including your name and complete mailing address, to Cindy Dunbar, at [dunbar@animal.ufl.edu](mailto:dunbar@animal.ufl.edu). For further information or if you have any questions, you may call (352) 392-2992.



**Follow signs from SR 441.**

## Young Horses Need More Zinc, Copper For Strong Skeletons, Says UF Expert

They run fast and jump high, sometimes suffering torn cartilage and broken bones as a result. They're not human athletes, they're horses. And a University of Florida expert says current national nutrient recommendations may not provide all the zinc and copper the animals need to develop strong cartilage and bone in their early years.

"The entire equine industry is based on athleticism, whether we're talking about horses used for racing, show or pleasure riding," said Ed Ott, animal sciences professor with UF's Institute of Food and Agricultural Sciences. "The skeletal system is literally the foundation for a healthy, capable animal."

A 1989 National Research Council report, considered the "gold standard" for equine nutrition, recommends that growing horses get 40 milligrams of zinc and 10 milligrams of copper per kilogram of feed. But recent UF research shows foals aged 5 to 18 months develop the strongest bones when given feed containing double those amounts, Ott said. Both minerals are used for enzyme processes in forming and maintaining cartilage, and zinc is also involved in mineralization of cartilage, the process by which cartilage is replaced by bone in developing horses.

In light of the findings, Ott, who headed a panel of experts that issued the report, said the recommendations should be revised in order to help reduce the incidence of fractures and other skeletal injuries to horses. In 1999, Ott and other equine nutrition experts met to discuss recent research, said Charlotte Kirk Baer, director of the council's Board on Agriculture and Natural Resources in Washington, D.C.

"Their consensus was that the report should be revised," Kirk Baer said. "We're all in favor of that, it's mainly a question of when the funding

becomes available. Because the council is a private entity, its projects are dependent on funding from the federal government, foundations and industry sources.

"Unfortunately, several federal agencies have made cutbacks in their allocations to the council," she said. "We're concerned that perhaps the agencies aren't aware of the tremendous value that industry and the general public place on these reports."

Early next year, the council will issue an updated report on nutrient requirements for dogs and cats, she said. The council's recommendations for horses are important to feed producers and others with a professional interest in equine nutrition, said Larry Mack, nutritionist with Seminole Feeds in Ocala.

"The report is certainly a base of information, although it's not the only thing we look at," Mack said. "The council tends to be pretty conservative and makes recommendations based on the most thoroughly reviewed findings, whereas we try to be a little more cutting-edge in order to stay competitive."

He said commercial horse feeds often are fortified with zinc, copper and other minerals. Many Seminole feeds contain 120 milligrams of zinc and 40 milligrams of copper per kilogram. Ott said that recreational horse owners may want to consider the proper supplementation of their grazing animals.

"You can't assume that forage will meet 100 percent of a horse's nutritional requirements," he said. "You may have problems if the soil is deficient in some nutrients, or there aren't enough plant species available to provide a balanced diet."

Zinc and copper are considered trace minerals, because horses need them in minute amounts, Ott said. A 6-month-old foal weighing 235 kilograms would need about 472 milligrams of zinc and 118 milligrams of copper per day.

"Prior to birth, the skeletal systems of horses and other vertebrates are composed entirely of cartilage," he said. "In horses, much of the

mineralization process occurs between birth and 1 year of age, and mineralization isn't complete until 3 to 4 years."

To conduct the research, Ott worked with graduate students at UF's Horse Research Center near Ocala. They provided foals with varying amounts of zinc and copper and used X-ray technology to estimate bone mineral content and skeletal strength.

"We used non-invasive procedures so that we could work with the same foals as they matured," he said. "For horses, the most critical time in skeletal development is between 5 months and 18 months, when their bodies are growing fastest."

He said future UF research will examine the roles zinc and copper play in skeletal development of younger and older horses.



Ed Ott, professor with the University of Florida's Institute of Food and Agricultural Sciences, checks development of yearling horses at a UF research facility in Ocala, Thursday- APR- 4, 2002. Ott found that horses aged 5 to 18 months develop the strongest skeletons when given feed containing 80 milligrams zinc and 20 milligrams copper per kilogram. Current national recommendations indicating horses need only half those amounts may need to be revised, he said. (AP Photo: University of Florida/IFAS/Thomas Wright)

**SOURCE:** Tom Nordlie  
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By: Ed Ott (352) 392-2455  
Charlotte Kirk Baier (202) 334-3062  
Larry Mack (352) 732-4143  
IFAS Communications Services  
University of Florida  
Release – April 4, 2002

-ELJ-



## USDA Announces Additional Steps To Reduce Pathogens In Raw Ground Beef

Agriculture Under Secretary for Food Safety Dr. Elsa Murano announced new meat safety directives to control pathogens in plants that produce ground beef. The Hazard Analysis and Critical Control Point system, or HACCP, requires plants to determine those points in their process where contamination can occur and where it can be controlled. Under these new directives, Food Safety Inspection Service inspectors will determine whether plants have specifically addressed *Salmonella* and *E. coli* O157:H7 in their Pathogen Reduction/HACCP plans to have effective control measures for these pathogens. Ground beef plants that do not employ effective decontamination strategies, or that do not require their suppliers to do so as part of their PR/HACCP systems, will be targeted for increased verification testing by FSIS, above that which is already conducted. USDA currently tests for *Salmonella* and *E. coli* O157:H7 in grinding plants to verify that the plants' food safety systems are controlling microbial hazards.

“A key part of pathogen reduction is a strong HACCP system,” said Murano in a speech to the National Food Policy Conference. “These directives are an example of how we can better tap HACCP’s potential.”

Under the PR/HACCP rule, if a plant does not have an adequate plan, or does not have an adequate sanitation program, the U.S. Department of Agriculture’s Food Safety and Inspection Service can withhold marks of inspection or suspend inspection at a plant, which effectively shuts down the plant.

“Recent data released by the Centers for Disease Control and Prevention and USDA show that foodborne illness is declining in the United States, and that the prevalence of *Salmonella* in meat and poultry has declined since the

implementation of the PR/HACCP rule,” said Murano. “If we are going to continue to drive down the incidence of pathogens in raw ground beef, it is crucial that we increase our efforts and resources on those establishments where microbial control may be insufficient,” said Murano.

The directives will be issued within the next several weeks and will be in place while the department works through the rule-making process to include the directives in its food safety regulations.

The announcement today is part of a series of actions USDA announced Dec. 18, 2001 to further improve meat and poultry safety. USDA is expediting the placement of 75 new Consumer Safety Officers with the primary responsibility of conducting in-depth reviews of plant HACCP and sanitation plans throughout the country. This will bring the total CSO staff to 110, supplementing the more than 7600 USDA food safety inspectors nationwide.

In addition, USDA is conducting a series of public meetings to gain input from interested parties. Murano announced a public symposium on food safety, which will be held May 6-7 at Georgetown University in Washington, DC. Titled *Pathogen Reduction: A Scientific Dialogue*, the symposium will bring together leading experts from government and academia to discuss scientific data and issues associated with pathogen reduction and HACCP.

The above initiatives are part of the USDA’s overall strategy to improve food safety, which is supported through the Bush Administration’s FY 2003 budget request for the Department. It provides for \$905 million, the second straight year of record level spending, to strengthen FSIS in order to ensure safe and wholesome meat, poultry and egg products for consumers.

**SOURCE:** Alisa Harrison (202) 720-4623  
Matt Baun (202) 720-9113  
USDA  
Release – April 22, 2002

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# Call For Consignments – 2002-2003 Florida Bull Test

It is now time to plan consignments to the 2002-2003 Florida Bull Test at the University of Florida, North Florida Research and Education Center, Marianna. Consignment is open to all breeds and composites with Expected Progeny Differences. Bull must be born between September 1 and December 31, 2001. Bulls will be gain tested for 112 days. Weight growth, ultrasound, health, and reproduction data will be gathered throughout the test. Eligible bulls will be sold at auction at the NFREC Pavilion on Saturday, January 25, 2003. Bulls will be scheduled to arrive at the testing facility on August 2-3, will go on test August 21-22, and complete the test on December 11-12. Nomination forms are available by contacting: Mrs. Mary Chambliss, North Florida Research and Education Center, 3925 Hwy 71, Marianna, FL 32446-7906, Phone: (850) 482-9904, or can be downloaded from <http://flbulltest.ifas.ufl.edu/>. Nominations are due by July 1, 2002.

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## Livestock Summary

USDA is reporting that the cattle inventory numbers on January 1, 2002, indicates a decline of another one percent from the 1996 cyclical peak.

This decline of cattle and calves on farms marks the 12<sup>th</sup> year of the cattle cycle which began in 1991. The previous cyclical low occurred in 1990 with 95.8 million head nationwide.

This trend strongly suggests that inventories will continue their decline for at least the next two

years. Beef production in 2002 is expected to decline two percent from last year, and four to five percent from the 2000 record.

Replacement heifers are not expected to calve this year in potentially sufficient number to offset the larger cow slaughter of 2001. A larger than expected number of heifers from this year's calf crop would need to be retained to even begin to offset continued large beef cow slaughter.

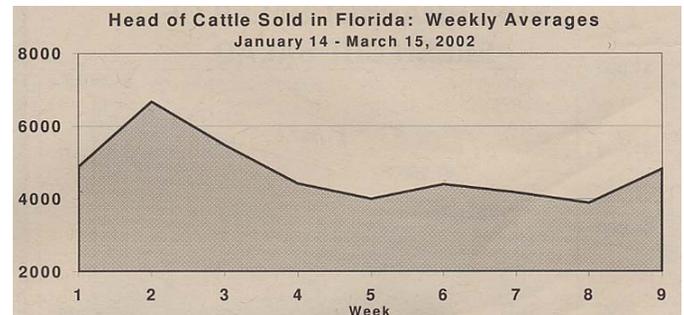
The next real change for herd expansion will likely come from retained heifers in this year's calf crop. They will be bred in 2003 and produce calves in 2004.

The projected number of beef heifers expected to calve this year is up three percent, still it is only 115,000 higher than the low level of a year earlier. The numbers of heifers calving and entering the beef and dairy cow herds in the second half of 2001 to decline to the lowest level since 1988.

Better forage and grazing prospect from improved moisture would supply the base for increased heifer retention and reduced beef production in the fourth quarter of 2002. Renewed El Nino prospects may bring this about for Florida producers.

This year, fed cattle prices are likely to rise through the year and average in the mid-\$70 range, even as slaughter weights rise to new record levels. Another good sign for Florida cow-calf ranchers that the post 9-11-01 economy is beginning to recover and profit projections are improving.

## LIVESTOCK TRENDS



## Animal Sciences Publications Update

The Department of Animal Sciences is continuing to add to our list of publications available from our web page (<http://www.animal.ufl.edu/Publications>).

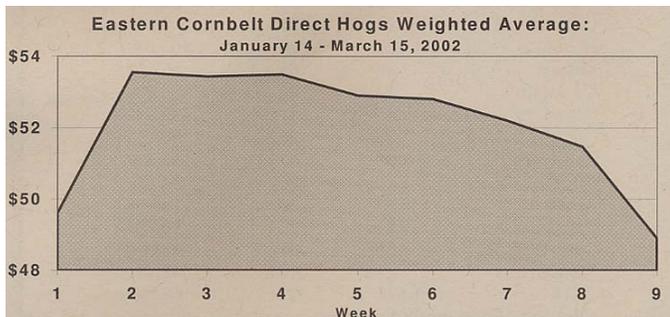
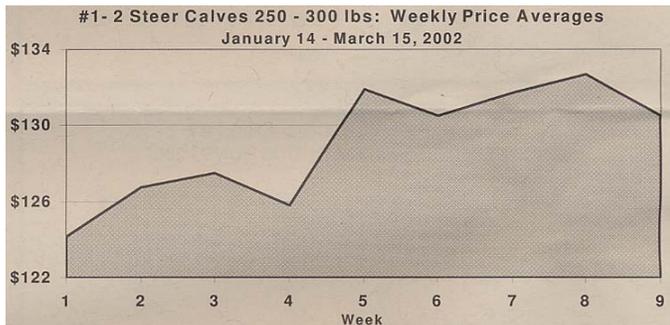
The newest addition is the proceedings for the 51<sup>st</sup> Annual Beef Cattle Short Course, which was held May 1-3, 2002, in Gainesville, Florida. The articles are available in both html and pdf format and can be accessed at <http://www.animal.ufl.edu/BeefCattle/Pubs/Short02/shorters.htm>.

The Florida Cow-Calf Management, 2<sup>nd</sup> Edition, is now available on the EDIS web site (<http://edis.ifas.ufl.edu>). To make file loading quicker, each chapter is listed separately and all chapters are in both html and pdf format.

As a reminder, the Animal Sciences Newsletter is available on our web site at <http://www.animal.ufl.edu/BeefCattle/Newsletter/index.htm>. We are unable to print copies in color format for distribution, but most figures and graphics are in color and are in this format in both the html and pdf versions.

If you do not have the Adobe Acrobat Reader, which is necessary for viewing and printing the pdf format files, you may download the free version from <http://www.adobe.com/products/acrobat/readstep.html>.

We will continue to update you as publications become available.



### FDACS Announces the Livestock Export Directory

The Florida Department of Agriculture and Consumer Services (FDACS) recently published a Livestock Export Directory. The purpose of the directory is to assist Florida producers in the export of high quality Florida livestock and genetics to the international community. The directory is available in English and Spanish and provides a comprehensive perspective on the exporting process. To obtain your copy, please call FDACS Division of Marketing and Development at (850) 488-4366

**SOURCE:** The Florida Agri-Journal  
Release – April 1, 2002  
Researched by Les Harrison  
Development Rep. I,  
Division of Marketing

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# Food Industry Animal Welfare Program Moving Forward

No one can argue that the issue of animal welfare continues to heat up in the meat and poultry industries. Here's news about a program some may not be familiar with.

The Food Industry Animal Welfare Program was established by the Food Marketing Institute and the National Council of Chain Restaurants, and brings together experts in veterinary medicine, animal science and agricultural production for the purpose of identifying science-based, objective and measurable indices for desirable practices in the growing, handling and processing of animals used for food production.

Goals of the FMI/NCCR Animal Welfare Program include:

- Identifying and implementing best practices in animal production that have their basis in peer-reviewed science
- A measurable audit process
- Consistency across the retail sector
- Improved communication across the supply chain on animal welfare issues

## When The Program Began

The program began with the adoption of an animal welfare policy and program by FMI in January 2001. FMI and NCCR announced a formal alliance in June 2001. The AVMA also joined the effort as a member of the FMI-NCCR's Animal Welfare Expert Advisory Panel in June 2001.

"Veterinarians are specifically trained for and dedicate their working lives toward, ensuring the health, welfare and humane treatment of animals," said Gail C. Golab, assistant director, professional and public

affairs, and AVMA liaison to the pre-mentioned panel.

Last December, members of the FMI-NCCR Animal Welfare Expert Advisory panel met and developed guidance documents that describe the process, content and audit components necessary for meaningful and effective animal welfare guidelines. An FMI-NCCR interim report, released in January and available at <http://www.avma.org/>, explains these components in more detail and describes other activities of this broad-based animal welfare program, which include:

- Comparing existing species-specific industry guidelines with the process and criteria established by its Animal Welfare Expert Advisory Panel for acceptable guidelines content and audit systems.
- Recommending changes for modifying and enhancing current practices that do not meet the specified FMI-NCCR criteria or do not address appropriate animal welfare issues for each species in particular environments.
- Encouraging scientific research to fill gaps in information and ensure that recommendations are based on sound scientific principles.
- Periodic reviews of guidelines and best practices to make certain they keep pace with scientific discovery.

"We believe a science- and performance-based approach to appropriate modification of agricultural practices is the only way to ensure that changes made are those that will actually result in health and welfare benefits for animals," Golab said.

**SOURCE:** Bryan Salvage  
<http://www.meatingplace.com>  
Release – April 12, 2002

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