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Dates to Remember

January

- 1** New Year's Day
- 7** All Black Classic (Sim/Angus) - Southern Cattle Company - Cambellton, FL
- 7** Western National 4-H Livestock Judging Contest - Denver, CO
- 7** Western National 4-H Meats Judging Contest - Ft. Collins, CO
- 10** Ocala Bull Sale - Ocala, FL
- 16** Hog & Ham Workshop - Gainesville, FL
- 18** Pasture Management and Health Care for Horses - Ft. Myers, FL
- 19** FL Cattlemen's Institute & Allied Trade Show - Kissimmee, FL
- 21** Florida Bull Test Sale - Marianna, FL
- 26** 57th Annual Homestead Championship Rodeo and Frontier Day - Homestead, FL
- 31** 17th Florida Ruminant Nutrition Symposium - Gainesville, FL

February

- 1** 17th Florida Ruminant Nutrition Symposium - Gainesville, FL
- 2** Northwest Florida Beef Conference & Trade Show - Marianna, FL
- 2** Florida Beef Quality Producer Program - Marianna, FL
- 3-5** American Youth Horse Council Youth Horse Leadership Symposium - Gainesville, FL
- 11** Florida State Fair Horse & Livestock Judging - Tampa, FL
- 28** Pasture Renovation & Management for Cattle & Horses - Ft. Myers, FL





Beef Management Calendar

January

- ✓ Apply lime for summer crops.
- ✓ Check for lice and treat if necessary.
- ✓ Control weeds in cool season pastures.
- ✓ Begin grazing winter clover pastures when approximately 6 inches high. Rye should be 12-18 inches high.
- ✓ Check mineral feeders.
- ✓ Put bulls out for October calving season.
- ✓ Make up breeding herd lists if using single sire herds.
- ✓ Watch for calf scours.
- ✓ Give bulls extra feed and care so they will be in condition for breeding season.
- ✓ Make sure cow herd has access to adequate fresh water.
- ✓ Buy only performance tested bulls with superior records.
- ✓ Get taxes filed.
- ✓ Discuss herd health with your veterinarian and outline a program for the year.
- ✓ Review herd health program with your veterinarian regularly.
- ✓ Carry a pocket notebook to record heat, breeding abnormalities, discharges, abortions, retained placentas, difficult calvings and other data.
- ✓ Observe cow herd for calving difficulties.
- ✓ Watch for grass tetany on winter pastures.
- ✓ Increase magnesium levels in mineral mixes if grass tetany has been previous problem (if you are not already using a high magnesium mineral).
- ✓ Examine bulls for breeding soundness and semen quality prior to the breeding season.
- ✓ Vaccinate cows and heifers against vibriosis and leptospirosis prior to the breeding season.

February

- ✓ Top dress winter forages, if needed.
- ✓ Check and fill mineral feeders.
- ✓ Put bulls out with breeding herd.
- ✓ Work calves (identify, implant with growth stimulant, vaccinate, etc.).

- ✓ Make sure lactating cows are receiving an adequate level of energy.
- ✓ Watch calves for signs of respiratory diseases.
- ✓ Cull cows that failed to calve while prices are seasonally up.
- ✓ Check for lice and treat if needed.

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.



UF Student Erica Der Elected To National FFA Position

University of Florida junior Erica Der has been elected southern region vice president of The National FFA Organization, one of the country's largest youth groups dedicated to agricultural education.

A native of Plant City, Fla., Der was one of six national officers elected during the FFA annual convention in Louisville, Ky., Oct. 26-29. She received an \$8,000 scholarship as part of the honor.

Der and her five new colleagues – a president, secretary and three other vice presidents representing



(UF/IFAS photo by Josh Wickham)

Erica Der, a University of Florida junior, was recently elected southern region vice president of The National FFA Organization, one of the country's largest youth groups. She will promote FFA, education and agriculture during her one-year term in office. A native of Plant City, FL., Der is majoring in agricultural communications at UF's Institute of Food and Agricultural Sciences.

various parts of the country – will serve one-year terms of office, she said. They were chosen from a field of 37 candidates, based on tests, essays, interviews and previous accomplishments.

An agricultural communications major in UF's College of Agricultural and Life Sciences, Der will put her studies on hold temporarily to make time for her duties as vice president, she said. The college, part of UF's Institute of Food and Agricultural Sciences, promotes FFA activity among students.

In 2006, Der will travel more than 100,000 miles and visit about 40 states. Her duties will include visiting FFA members and supporters, agriculture teachers, business leaders and elected officials.

Besides promoting FFA, agricultural education and the agriculture industry, national officers provide leadership and personal-growth training to FFA members, Der said.

"I'm really looking forward to passing along some of the things I've learned," she said. "I want to help other young people fulfill their potential."

As southern region vice president, Der will represent nine states – Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee – as well as Puerto Rico and the U.S. Virgin Islands.

She will attend chapter meetings and state conferences, meet with FFA leaders throughout the region and provide their perspective at national board meetings.

"There's going to be a lot work ahead, but also a lot of fun," Der said. "This next year is going to be one of the highlights of my life."

Der has always been around agriculture. Her parents, Dennis and Lori, operate a feed and farm supply business in Plant City, and Der grew up near an orange grove owned by her grandparents.

She joined FFA while in the sixth grade and has earned numerous awards during her nine years with the organization. While a senior in high school, Der became an area vice president of Florida FFA, which led to her eligibility as a candidate for national office.

"Being elected southern region vice president is the pinnacle of my FFA career, but the nice thing is that I've had so many other rewarding experiences along the way," Der said. "I want others to know that FFA and agricultural education can have a wonderful, positive effect on their lives."

The presence of a national FFA officer in the UF college will inspire other students to excel, said Chris Vitelli, the college's director of student services.

"Erica is just an incredible example of a student who set goals for herself, worked hard and accomplished what she set out to do," Vitelli said. "We're eager to have her back on campus in 2007, and I think she's going to be looked upon as one of the college's outstanding student leaders."

Founded in 1928, The National FFA Organization, previously known as Future Farmers of America, has almost 500,000 members, hailing from all 50 U.S. states, Puerto Rico and the U.S. Virgin islands.

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Reducing the Incidence of Dark Cutting Beef in Junior Livestock Shows

4-H and FFA livestock shows place cattle in a surrounding where they are stressed physically and psychologically. They are exposed to physical exertion, unfamiliar smells, tastes, sounds, people, cattle and other animals. Owners need to understand that stress can be reduced or eliminated with proper care and management. Many cattle are stressed to the point where they may even go off feed and water. Cattle may appear agitated and exhibit abnormal behavior at the show but often a more serious condition appears once the animal has been sold and harvested. This is known as dark cutting beef (DCB) and can be a serious problem in junior livestock shows. In some junior livestock shows, instances of DCB can be 10 to 20 times that of the commercial beef industry.

What Causes Dark Cutting Beef?

The pH of living muscle is just above 7.0 in well fed and rested cattle with glycogen concentrations from 0.8% to 1.0%. When the animal is harvested, pH in normal muscle falls to 5.5. If the animal is stressed for any reason then glycogen concentration can fall to less than 0.6% and normal acidification of the muscle tissue from lactic acid does not occur and pH will remain high (above 6.0). This abnormally high pH (>6.0) increases the light-absorption and water binding abilities of postmortem muscle resulting in an undesirable, dark, firm, and dry cut lean surface (Lister, 1988). This causes the muscle to turn a darker color of red, hence the term dark cutter. There also appears to be a relationship between muscle pH and (or) muscle color and meat tenderness (Purchas, 1990). Dark cutting beef is undesirable because it is aesthetically unpleasant and because it is more susceptible to microbial growth (Lawrie, 1998). Dark cutting is an expense to the beef industry but can be managed.

Factors Contributing to Dark Cutting Beef

Weather, growth promotants, genetics, disposition and handling practices before harvest all may play a role in creating the dark cutting condition (Hedrick et al.,

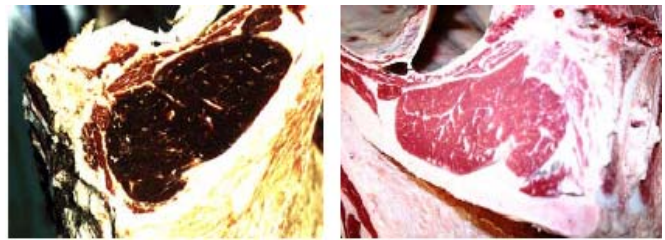


Figure 1. Beef carcasses with and without dark cutting characteristics.

1959; Smith et al., Voisinet et al., 1997).

1. **Weather:** Heat can be a factor, especially when temperatures are very high or when cattle are subjected to fluctuations in temperature which occur over short periods of time (Skanga et al., 1999). Many junior livestock shows are held during the summer. Care should be given to ensure that cattle have comfortable surroundings including bedding, shade, feed and plenty of water.

2. **Growth Promoting Implants:** Steers treated with combination on-feed implants followed by combination reimplants showed higher percentage of DCB than steers given on-feed estrogen type implants followed by estrogen type re-implants. Also, as the number of days between harvest and the last final implant increases the incidence of DCB declines (Scanga et al., 1999). This requires further research as we do not advocate nonuse of growth promoting implants. Implants can positively influence muscle growth and daily gain resulting in greater efficiencies. However, their use must be understood and managed so that misuse does not occur. There are many excellent Extension publications and resources on implants that can be obtained through internet searches or your County Agent.

3. **Physical Activity:** Cattle can experience increased activity and stress when exposed to a new environment. Standing for long periods of time, frequently getting up and down, and other strenuous activity common to a livestock show should be limited as much as possible. Loading and unloading cattle should take place during cooler times of the day.

4. **Psychological Stress:** Cattle can experience increased stress when they are exposed to new surroundings, people, smells, and sounds they are not familiar with, but are typical to a livestock show. Feed rations should not change after bringing the animal to a livestock show. Some cattle will not drink chlorinated

Table 1. Common Types and Brands of Growth Promoting Implants

Growth Promotant	Androgen	Estrogen	Combination	Estrogen Combination	Double Androgen
	Synovex-H [®]	Synovex-S [®]	Revalor-H/S [®]	Synovex-S [®] /Revalor [®]	Finaplix [®]
	Implus-H [®]	Ralgro [®]			Synovex-H [®]
	Finaplix-H/S [®]	Implus-S [®]			
	Heiferoid [®]	Compudose [®]			
		Steroid [®]			

water if they are not familiar with the taste. As an example, one year at the Box Elder County Junior Livestock Show, more than 60% of youth (38 out of 62) reported their steer's drinking habits changed after being brought to the show. If the calf has never been exposed to the taste of chlorinated water, beforehand get them familiar with the water by using it routinely prior to the show. Make the animal's stay at the livestock show as comfortable as possible.

5. Yield Grade: Yield grade is a strong indicator of whether a steer may become DCB. Higher yield grade (>3.0) steers have more finish and more energy reserves to carry them through a stressful event like a livestock show. Try not to select cattle with very low yield grade characteristics.

Why Is This a Concern?

The greatest problem with dark cutting beef is consumer rejection because of its color. Consumers associate dark color beef with old cattle, toughness, poor flavor and short shelf life. Although the incidence of DCB has declined in recent years, from 2.7% to 2.5% (NBQA – 2000), packers must still discount DCB carcasses between 20% and 40%. The most recent quality audit calculated that dark cutters cost the industry \$6.08 per head on every fed steer and heifer slaughtered. The percentage of DCB presented is for the overall beef industry. The percentage of calves from livestock shows that exhibit DCB often is much higher such as 25 - 50% in unusual circumstances. This can vary extensively and is a real concern for packers.

Conclusion

Raising a steer as a 4-H or FFA project provides youth with a unique opportunity to use live animals to develop valuable life long skills. However, youth need

to understand that they are not just raising a project for the county fair; they are in the business of producing a food product for the consumer. Reducing the incidence of DCB in project beef will help ensure that youth continue to experience this unique educational opportunity and that the consumer is assured that the best product possible is delivered.

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Utah State University
Logan UT
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Food Safety Gets Beef Producer Backing Through Serv-Safe®

About half of all beef in the U.S. is consumed away from home, based on data obtained through the national Beef Checkoff Program. Partnering with foodservice operators to assure beef is wholesome when sold to consumers. That's the concept behind a program called ServSafe®, a checkoff-supported program which enhances the food-safety knowledge of foodservice workers.

In fact, food safety is the primary priority for the Joint Foodservice Committee, a group of beef producers charged with providing recommendations for beef checkoff-funded foodservice program initiatives. The \$1-per-head checkoff is administered by the Cattlemen's Beef Board with oversight provided by the U.S. Department of Agriculture.

"There are more than 900,000 individual foodservice locations in this country, and most of those serve beef," says 2005 Foodservice Committee Chairman Sid Sumner, a Florida beef producer. "We want to work with foodservice professionals to assure practices that put our products in the best light. This includes food safety training that educates and motivates managers."

ServSafe® is coordinated by the International Food Safety Council, a division of the National Restaurant Associational Educational Foundation (NRAEF). During the last year, more than 300,000 managers and employees took the course, now in use by more than 80 percent of the foodservice industry. More than 2.5 million foodservice professionals have already been trained through the ServSafe® certification program – an important figure in an industry that at some levels has turnover that can exceed 100 percent in any given year.

ServSafe® addresses biosecurity, personal hygiene, best practices for inspecting and receiving shipments, storage and handling, preparation and serving, avoidance of cross-contamination and other issues important to optimizing food safety. The program is based on the Food Code of the Food and Drug Administration (FDA), and is firmly grounded in the real world needs and everyday applications of the foodservice industry.

ServSafe® is recognized by more federal, state and local jurisdictions that require food safety manager training or certification than any other program. Along with enhancing food safety, the program helps improve employee morale, maintain food quality and contribute to customer satisfaction.

Professionals in the beef industry responsible for beef presentations and promotion programs also participate in this food safety training. Through the NRAEF dozens of state beef council executives and professionals at beef organizations and other groups take the course to assure that those who demonstrate the product are the best possible ambassadors for beef practices.

"As founding sponsors of the ServSafe® program, America's Beef Producers are backing up their commitment to food safety all along the beef marketing chain through our Beef Checkoff Program," says Sumner. Al Svajgr, chairman of the Cattlemen's Beef Board,

agrees.

“We need to do everything we can to leverage checkoff dollars in a way that ensures food safety at the point of preparation and service, which is the last step from farm to fork,” according to Svajgr, a Nebraska beef producer. “This is part of our commitment to provide safe beef to consumers and to protect beef demand for our producers.”

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<http://www.beef.org>
Centennial CO
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Internet Video Offers Overview of Checkoff Program

A video that examines the Beef Checkoff Program from its 1986 beginning to today is now available via the Internet.

“The Beef Checkoff – Building Beef Demand” is a 28-minute video that was launched on the RFD-TV network in September. It takes an in-depth look at the structure and accomplishments of the checkoff, which is administered by the Cattlemen’s Beef Promotion and Research Board and overseen by the U.S. Department of Agriculture.

“Providing this information in audio-visual form is another way of fulfilling our responsibility to inform producers about how their checkoff dollars are spent,” according to Beef Board Chairman Al Svajgr, a Nebraska cattleman. Svajgr also is one of the producers interviewed for the program. “The video gives viewers a better understanding of the checkoff process and programs,” he said.

The checkoff video was broadcast on RFD-TV Sept. 19, 20 and 25. It contains information about what initiated the mandatory beef checkoff, what beef producers are saying about the program today and the impact that the checkoff has had on the beef industry in the United States. Included are highlights from various beef checkoff projects in promotion, research, consumer information, foreign marketing and producer communications.

In addition to Svajgr, seven other beef producers who have served as chairmen of the Beef Board through the years are interviewed for the video, including JoAnn Smith, a Florida beef producer who served as the first Beef Board Chairman in 1986-88. The video also features interviews with several other producers who have served on the Beef Board, and other checkoff representatives.

Because of the size of the electronic file, Internet download is recommended only from computers with high-speed access to the Web. To access the video from your computer, go to one of the following sites: <http://www.beefboard.org/whowbeefcheckoffinfo.aspx> or <http://www.beefboard.org/checkoffprograms.aspx>

For more information on the checkoff video or any other elements of the national Beef Checkoff Program, please contact Diane Henderson at the Cattlemen’s Beef Board, (303) 850-3465 or dhenderson@beefboard.org.

SOURCE: <http://www.beef.org>
Centennial, CO
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Profitability of Calves Sired by Terminal Versus Maternal Breeds of Bulls

Colorado State University scientists used 80 steer progeny produced by mating British cross females to one of three terminal sires (Charolais) or one of five maternal sires (three Angus and two Red Angus-Composites) to compare the effects of sire type (terminal vs. maternal) on performance, carcass traits, and profitability.

Steers sired by terminal bulls were significantly heavier at most stages of production, from birth to harvest, and grew faster from birth to weaning than steers sired by maternal bulls. Terminal-sired steers consumed significantly more feed, but there were no differences between sire types in feed conversion or cost of gain. Carcasses sired by terminal bulls were significantly heavier than those sired by maternal bulls, but other carcass traits did not differ.

Profitability was compared using two different marketing scenarios—selling calves at weaning or retained ownership through harvest. If sold at weaning, terminal-sired calves would generate \$39.52 more net return than maternal-sired calves. If retained through harvest, terminal-sired calves would generate \$83.62 more net return than maternal-sired calves. These results suggest that for commercial cow-calf producers who routinely retain ownership of their calves through harvest and who have access to a reliable source of affordable females, the use of a terminal crossbreeding system may be a viable strategy for enhancing profitability (Schneider et al. 2005. Colorado State Univ. Beef Report).



Effects of Limit Feeding of Grain and Added Fat on Reproductive Performance

University of Georgia researchers conducted two experiments to evaluate the effects of limit-feeding a high concentrate diet and the addition of fat on reproductive performance and hormone profiles of mature cows. In Exp. 1, Angus cows (27 days post-partum) were allotted to one of two treatments for 56 days immediately preceding the breeding season: 1) bermudagrass hay fed ad libitum (H); or 2) limit-fed a corn-based diet (C). After 56 days, cows grazed bermudagrass pasture and were exposed to bulls for 75 days. Initial body condition scores for both groups were 5.5. Likewise, after breeding season, condition scores for both treatments were similar (5.4). However, body wt. loss was significantly greater for C than for H cows (116 vs. 18 lb). Nevertheless, days to first estrus was not different between treatments (52.9 and 52.4 for H and C, respectively). Insulin concentrations were greater at 56 days for C than for H cows.

In Exp. 2, Angus cows (12 days post-partum) were allotted to one of four treatments for 56 days prior to breeding season: 1) bermudagrass hay + 4.6 lb cottonseed meal as a source of fat (HF); 2) bermudagrass hay + 5.5 lb corn-soybean meal mix (no fat; HNF); 3) limit-fed corn + 4.6 lb cottonseed meal (CF); or 4) limit-fed corn (no fat; CNF). Final body condition scores and days to first estrus were similar among treatments. Like Exp. 1, insulin concentration was higher at 56 days for cows fed corn than for those fed hay. These results show that a corn-based diet increases insulin concentrations compared with feeding a hay-based diet. However, overall reproductive performance was not affected by pre-breeding energy concentration or added dietary fat (Rossi et al. 2005. J. Anim. Sci. [Suppl. 1] Abstract W163).



Feedlot Cattle Getting Fatter in the Wrong Places

Cattle-Fax™ analysts recently reported that the percent of Yield Grade 4 cattle has been increasing at a rate of about 1 percentage point per year since 2001. In 2005, it averaged about 7%, compared to only 2% in 2001. If this rate continues, the percent of Yield Grade 4 cattle could reach 12% by 2010. Equally alarming is the fact that the percent of Choice grade cattle has remained relatively flat during the same 2001-2005 time period. In other words, carcasses are getting fatter on the outside, but marbling is not keeping pace with external fat. Heavier carcass weights are also contributing to the increase in Yield Grade 4's.



SOURCE: Harlan Ritchie, Steven Rust, and Daniel Buskirk
Michigan State University
East Lansing, MI
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