Virginia Cooperative Extension
A partnership of Virginia Tech and Virginia State University

VirginiaTech
College of Agriculture and Life Sciences

VSU VIRGINIA STATE

Animal & Poultry Sciences (0306)
Virginia Tech, 366 Litton Reaves
Blacksburg, Virginia 24061
540/231-9159 Fax: 540/231-3010
E-mail: sgreiner@vt.edu

Livestock Update

Beef - Horse - Poultry - Sheep - Swine

February 2013

This LIVESTOCK UPDATE contains timely subject matter on beef cattle, horses, poultry, sheep, swine, and related junior work. Use this material as you see fit for local newspapers, radio programs, newsletters, and for the formulation of recommendations.

IN THIS ISSUE:

Scott P. Greiner, Extension Project Leader
Department of Animal & Poultry Sciences

Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Jewel E. Hairston, Administrator, 1890 Extension Program, Virginia State, Petersburg.

Dates to Remember

BEEF

FEBRUARY

1 Virginia Beef Convention. Hotel Roanoke. ***Contact:*** Jason Carter, (540) 992-1009; email: jcarter@vacattlemen.org

MARCH

17 Virginia BCIA Southwest Bull Test Open House. Hillwinds Farm. Dublin.
Contact: Scott Greiner, (540) 231-9159; email: sgreiner@vt.edu

23 Virginia BCIA Southwest Bull Test Sale. Umberger Facility. Wytheville.
Contact: Scott Greiner, (540) 231-9159; email: sgreiner@vt.edu

HORSE

MARCH

22-24 EquiSmartz State Educational Weekend. VHC. Lexington.
Contacts: Celeste Crisman, (540) 231-9162; email: ccrisman@vt.edu or Jessica Tussing, (540) 231-6345; email: jessit07@vt.edu

JULY

29 thru 8/3 Southern Regional 4H Horse Championships. West Monroe, LA. ***Contact:*** Celeste Crisman, (540) 231-9162; email: ccrisman@vt.edu

SEPTEMBER

12-15 State 4-H Championship Horse & Pony Show. Virginia Horse Center. Lexington, VA.
Contacts: Celeste Crisman, (540) 231-9162; email: ccrisman@vt.edu or Jessica Tussing, (540) 231-6345; email: jessit07@vt.edu

March Herd Management Advisor

Scott P. Greiner & Mark A. McCann
Extension Beef Specialists, VA Tech

March is typically an unpredictable month in the region, and frequently feels much like winter along with periods of the pending spring. It is also tax season. The annual exercise of gathering records and receipts at tax time also provides an opportunity to more closely examine the performance and profitability of cattle operations. As a fundamental step, critique your record keeping system (both production and financial records) to identify areas that could be improved to provide more information for decision-making. Review your state Extension enterprise budget to highlight the financial information needed to make strategic economic decisions. Completing an enterprise budget will allow use of financial decision tools such as break-even analysis, sensitivity analysis and partial budgets to more closely examine key aspects of the operation that impact profitability. The VTBeef website (http://www.apsc.vt.edu/extension/beef/index.htm) has recordings of webinars that cover Financial Records, Transitioning from Schedule F Records to an Enterprise Budget and a Financial Decision Making Tools.

Spring Calving Herds (January-March)

General

- Calving season is in full swing. Check cows frequently during calving season- optimal interval is to observe calving females every four hours (heifers more frequently if possible).
- Tag, tattoo, record birth weight, calving ease score, teat/udder score and mothering ability of dam. Keep accurate records at birth to comply with age and source verification requirements.
- Monitor young calves for scours. Prevent scours by keeping calving area clean and well drained. Moving 2-3 day old pairs out of calving area to separate pasture (reduce commingling of newborn calves with older calves) help reduce exposure to scours.

Nutrition and Forages

- Replace free-choice minerals with a high magnesium mineral to prevent grass tetany. Monitor intake to insure cows are consuming the recommended amount. No other source of salt or minerals should be available.
- Evaluate growth of yearling heifers with goal of reaching 60-65% of mature weight by breeding. Depending on forage quality, supplementation may be needed to meet weight gain target.
- Feed high quality hay to minimize supplementation and cow weight loss.
- Although pasture green up is beginning and nutrient content of new growth is high, cows cannot consume enough to meet their nutritional needs. Restricting cows to smaller hay feeding areas will allow new pasture growth to get a faster start.
- Fertilize hay areas with K and P according to soil test recommendations. Add nitrogen at the rate of 40-70 lbs/acre.

Herd Health

- Observe newborn calves to ensure colostrum intake first few hours of life. Supplement if necessary. Newborn calves need 10% of body weight in colostrums during first 24 hours of life.
- Provide selenium and vitamin A & D injections to newborn calves
- Castrate commercial calves at birth
- Monitor calf health closely, particularly for signs of scours and pneumonia, have treatment supplies on hand.

- Consult with your veterinarian concerning pre-breeding vaccination schedule for cow herd and yearling heifers. Plan early to allow 30-day vaccination window prior to breeding season.

Reproduction

- Plan AI and synchronization program to be used during breeding season. Order supplies and semen.
- Schedule and conduct breeding soundness exams on herd sires, including annual vaccinations. Do so prior to spring bull sales to allow time to secure replacements as necessary.

Genetics

- Closely examine herd genetic goals and selection criteria for both AI and natural service sires. Establish herd strengths and weaknesses from genetic standpoint, and benchmark EPD criteria accordingly. Make plans for spring bull-buying season.
- Collect remaining yearling performance data (weight, height, scrotal, ultrasound) in seedstock herds.

Fall Calving Herds (September-November)

General

- Pull bulls to maintain a 60-90 day calving season. Monitor body condition and soundness of bulls.
- Schedule and conduct pregnancy diagnosis with veterinarian 45-60 days following breeding season.
- Evaluate potential options for marketing of calf crop, including time of weaning, and backgrounding strategy.

Nutrition and Forages

- Begin creep feeding or creep grazing calves if desired.
- Cows are entering latter portion of lactation, above average to good quality hay should meet nutritional requirements.
- Although pasture green-up is beginning, hay should be continued to be offered until consumption declines significantly.
- Reserve high quality hay and a pasture area for calves post-weaning.
- Fertilize hay areas with K and P according to soil test recommendations. Add nitrogen at the rate of 40-70lbs/acre.

Herd Health

- Consult with veterinarian on pre-weaning vaccination protocol for calf crop. Monitor calves closely for health issues, particularly respiratory disease.

Genetics

- Make plans for remaining spring bull sales. Closely examine herd genetic goals and selection criteria for both AI and natural service sires. Establish herd strengths and weaknesses from genetic standpoint, and benchmark EPD criteria accordingly.
- Collect 205-day weights on calf crop at appropriate time, along with cow weights, hip heights and body condition scores.

VT Beef - Winter Webinar Market Outlook February 12th

Dr. Mark A. McCann
Extension Animal Scientist, VA Tech

Dr. Andrew Griffith, Extension Livestock Marketing Specialist at the University of Tennessee for the third Beef Webinar sponsored by Virginia Cooperative Extension and scheduled for 6:30 p.m., Tuesday, February 12th. He will provide a "Market Outlook for 2013". Dr. Griffith received his PhD from Oklahoma State University in 2012 and started in his current role in May 2012. He contributes beef market information to Tennessee's Market Highlights on a weekly basis. Participants in the on-line meeting will have the opportunity to ask questions through an on-line chat box or over the telephone using a number provided during the program.

Check with your local Extension Agent about accessing the program at your local Extension office. Producers with high speed internet service can access the meeting at home. Webinar information and meeting links will be available on the VT Beef Extension webpage http://www.vtbeef.apsc.vt.edu/ From the VT Beef Extension site, you can click on the meeting link and go directly to the meeting. If you missed the earlier webinars, you will find the links to the recording on the VT Beef Site.

If you have questions, please contact Mark McCann at 540-231-9153 or mark.mccann@vt.edu .

Managing Beef Cattle to Increase Production, Pounds, and Pay!

Wednesday, February 27, 2013 - 3:30 p.m. to 8:00 p.m. – Alphin Stuart Arena, VA Tech
Thursday, February 28, 2013 10:00 am to 3:00 pm, Old Dominion Ag Complex, Hwy 29 So. Chatham
Dr. Dee Whittier
Extension Veterinarian, Cattle, VA Tech

Blacksburg Event hosted by the New River Valley Cattle Producers Association; also sponsored by Botetourt County Cattlemen, Craig County Cattlemen, Floyd Young Farmers, Giles Farm Management, Franklin County Cattlemen, Virginia Cooperative Extension, Virginia-Maryland Regional College of Veterinary Medicine, Merial Veterinary Services.

Chatham event hosted by Pittsylvania County Cattlemen's and Buckingham County Cattlemen's Associations. Distinguished guest will be Dr. Tom Noffsinger. Dr. Noffsinger, DVM from Benkelman, Nebraska is well-known as an expert on low stress livestock handling and owner and member of Production Animal Consultation, a group of professionals who provide information on stockmanship and animal welfare. Dr. Noffsinger's visit is sponsored by Merial animal Health.

Blacksburg Program:

3:30-4:00	**Registration**
4:00- 4:15	**Welcome and Introductions**
4:15-5:30	**Low Stress Cattle Handling - Dr. Tom Noffsinger**
5:30- 6:00	**Saving Baby Calves – Dr. John Currin**
6:00 – 6:30	**Nutritional Management of Cows Until Grass – Dr. Mark McCann**
6:30 – 7:00	**Dinner**
7:00- 8:00	**Cattle Handling Demonstration – Dr. Tom Noffsinger**

Registration Fee:
$10.00 per person
This fee includes lectures, demonstration, and meal.
Attendance will meet the requirement for BQA recertification for those already certified in the Virginia Beef Quality Assurance program. See your local Extension Agent if you would like to become BQA Certified.

For more information on the Blacksburg meeting contact:
Scott McElfrish, Pulaski VC Extension (540) 980-7761, mcelfres@vt.edu
Kate Lawrence, Botetourt VC Extension (540) 473-8260, MCL87@vt.edu
Andy Allen, Craig VC Extension (540) 864-5812, geallen@vt.edu
Mark Sowers, Floyd Young Farmers (540) 230-0177, msowers@swva.net
Sean Duff, Franklin VC Extension (540) 483-5161, sduff@vt.edu
Jeannie Layton-Dudding, Giles VC Extension (540) 921-3455, jdudding@vt.edu
You may register by phone (540) 980-7761 prior to February 22, 2013. Contact Scott McElfresh, Pulaski Office, Virginia Cooperative Extension; 143 Third Street NW Suite 3, Pulaski, VA 24301
You may register at the door but we cannot be sure that we can accommodate you for dinner.

For more information on the Chatham meeting contact:
Jamie Stowe, Pittsylvania Extension Office at (434) 432-7770 to register.
Questions can also be addressed to Jennifer Ligon, Buckingham County Extension Office at (434) 969-4261

2013 Southwest Bull Test: Sale, Open House, & Bred Heifer Sale

Dr. Scott P. Greiner
Extension Animal Scientist, VA Tech

An open house will be hosted at the Virginia Beef Cattle Improvement Association's Southwest Virginia Bull Test on Sunday afternoon, March 17th from 1:00 to 4:00 PM. Cattle producers and others interested are invited to attend. The Southwest Bull Test Station is located at Hillwinds Farm, owned and operated by Tim Sutphin of Dublin, Virginia. The station is located just outside Dublin. From Dublin, travel south on Route 11 just over two miles, and turn right on Thornspring Road/Rt. 643 (Cougar Express convenience store on corner). Proceed on Thornspring Road a little over a mile and the facility is on the left.

A total of 211 bulls are currently on test at Hillwinds Farm, including 99 fall-born senior bulls and 112 spring-born junior bulls. Breeds include Angus, Charolais, Gelbvieh, Gelbvieh Balancer, Polled Hereford, Simmental, and SimmAngus. The top end of these bulls will be sold on Saturday, March 23rd at 12:00 noon. The sale will be held at the Umberger sale facility, just outside Wytheville. Only bulls which meet stringent BCIA criteria will sell. This includes complete breeding soundness exams (including semen evaluation) on fall-born bulls, volume buyer discounts, and an enhanced soundness and fertility guarantee on all bulls selling.

The BCIA-Influenced Bred Heifer Sale will be held in conjunction with the bull sale. A select group of approximately 40 fall-calving bred heifers from leading producers will be offered immediately following the bulls. All heifers will be certified through the Virginia Premium Assured Heifer Program, which verifies health, genetics, and management procedures. Service sires for the heifers will feature highly proven, AI sires selected for calving ease and performance.

For complete details and progress reports visit the Virginia BCIA website http://www.bcia.apsc.vt.edu or phone 540-231-2257. Video clips of the bulls and an online catalog will also be posted.

Forage-Based Hair Sheep Ram Lamb Evaluation
Summary of Virginia Tech Southwest AREC Ram Test 2012

S.P. Greiner, D.L. Wright, D.R. Notter, M.A. McCann, B. Allen, and A. Zajac
VA Tech

Program Objectives

1. To provide a standardized post-weaning performance evaluation of growth and parasite resistance that will furnish records which will be useful to the consignor's breeding program.
2. To serve as an educational tool for the sheep industry.

Program Overview

Eighty-nine Katahdin rams born December 15, 2011 through March 15, 2012 were delivered to the Southwest Virginia Agricultural Research and Extension Center at Glade Spring, VA on June 5. Rams originated from 13 flocks located in VA, OH, GA and KY. At delivery, rams were weighed, vaccinated for clostridial diseases and soremouth, and scrotal measurements taken. Additionally, rams were dewormed with three anthelmentics (ivermectin, albendazole, levamisole), and fecal samples collected to determine presence of nematode parasites (FEC). A 21 day adjustment period was used to acclimate rams. A subsequent FEC was taken 12 days following delivery to confirm acceptable reduction in parasite load. The primary goal of the pre-test period was to ensure all rams had very low parasite loads at the initiation of the test.

Following the three week adjustment period, rams were allocated to 4 forage paddocks based on age and weight, and the structured performance test initiated on June 29. At the start of the test period all rams will receive an oral dose of 5,000 3rd stage *H. contortus* larvae. Body weights, FEC, PCV and FAMACHA scores were taken at the beginning of the test period, at 14 day intervals during the test (14, 28, 42, and 56 days), and at the conclusion of the test (74 days, September 11). During the test, rams had continuous access to fescue paddocks, and received supplemental concentrate feed at rate of 3% body weight daily (75% TDN, 16% CP).

FEC and FAMACHA was utilized to determine rams requiring deworming treatment. Rams were scanned via ultrasound on August 28 to estimate carcass merit/body composition. All rams were dewormed with multiple anthelmintics at the conclusion of the test (September 11). All rams were subjected to a breeding soundness examination conducted by veterinarians from the VA-MD Regional College of Veterinary Medicine.

Results

A summary of the performance data results for the rams over the 74-day test period is summarized below. A total of 7 rams required deworming treatment during the test period.

Trait	Average	Minimum	Maximum
Test Start Weight, lb	78	48	131
Test Final Weight, lb	96	64	154
ADG, lb/d	0.25	0.05	0.46
WDA, lb	0.47	0.35	0.61
Scrotal Cir., cm	30.0	22.0	35.5
100-lb Adj. Fat Th., mm	2.4	0.7	4.4
100-lb Adj. Loin Depth, mm	18.3	14.3	21.9
Mean Adj. FEC, egg/g	541	11	4003

An educational field day and sale was held on September 22. Thirty-two of the rams which completed the test were offered through the sale. Any rams which required deworming were eliminated from the sale, as were rams with poor performance and those which failed the breeding soundness exam. Consignors were allowed to sell a portion of their rams and retain a portion for home use. All available information on the rams was presented in the catalog, including: birth type, codon 171 genotype, final weight, test ADG/ratio, WDA/ratio, scrotal circumference, adjusted fat thickness, adjusted loin muscle depth, mean adjusted FEC (average of four adjusted fecal egg counts taken post-infection), and FEC Category (presented adj FEC into three categories: +++ = rams one standard deviation better than the average, + = one standard deviation poorer than average, and ++ = near average of test group). Rams categorized as +++ for FEC sold at the top of the sale order, followed by ++ rams and finally + category rams. Within FEC category, sale order was established based on an index weighted 2/3 on WDA and 1/3 on ADG. EBVs were also provided for rams participating in the National Sheep Improvement Program.

The 30 rams sold averaged $883 per head, with a range of $425 to $1900. Rams sold to Virginia, North Carolina, Ohio, and Georgia.

For information on the 2013 Southwest AREC Ram Test program, visit the VT Sheep Extension website at http://www.apsc.vt.edu/extension/sheep/ or contact Dr. Scott Greiner at 540-231-9159, sgreiner@vt.edu .

Lambing Management Tips

Dr. Scott P. Greiner
Extension Animal Scientist, VA Tech

Investment of time and sound management practices pay dividends for producers during lambing time. The profitability of a sheep operation is largely dependent upon maximizing the number of lambs marketed per ewe exposed, while minimizing costs of production. Since most lamb deaths occur at or shortly after birth, lambing time is critical. The three primary causes of death of lambs around lambing time are difficulty during the birthing process, starvation, and hypothermia. Management practices at lambing time are essential for the economic viability of the sheep operation.

Dystocia (lambing problems) has been shown to be a significant cause of lamb mortality. Losses due to stillbirths and dystocia can be reduced by frequent visits to the lambing barn and timely assistance of ewes. Pregnant ewes should be checked every 3-4 hours. If ewes are checked at 11 p.m. or midnight it is not necessary to check again before 5 or 6 a.m. Ewes that will lamb between these times usually show signs at the late night observation. Ewes close to lambing will be restless and may try to claim other newborn lambs. Ewes in labor will normally separate themselves, and frequently choose a corner or area along a wall or feedbunk to nest and deliver. The lambing area should be dry and well bedded, and sources of cold drafts that will chill newborn lambs should be eliminated. It is not necessary to have a heated lambing barn- a dry, draft-free area is more important. The lambing process can vary considerably between ewes. Ewes in labor should be left undisturbed. However, once the ewe begins forceful straining and the water bags are passed, delivery should normally take place within 45-60 minutes. Once the front legs are visible, lambs should be born within 30-45 minutes. After the first lamb is born, subsequent lambs are normally delivered within 30 minutes. Prolonged delivery beyond these times may indicate lambing difficulty, and the ewe should be examined and assisted if necessary. Prior to assisting the ewe, the examiner should wash the ewe's vulva with mild soap and water. Likewise, the shepherd should thoroughly wash their hands and arms and wear an OB sleeve when assisting or examining a ewe. When assistance is required to deliver one lamb, the uterus should be examined for additional lambs. For lambs that are pulled, a piece of straw may be gently inserted into the nostril as an irritant to help stimulate breathing. Lambs that are delivered rear legs first should be gently shaken upside-down by holding the rear legs to allow fluid to drain from the lungs.

When possible, ewes should be allowed to give birth where they initially bed down. Moving ewes to individual pens when they start lambing may prolong the birthing process and cause other complications. Additionally, allowing ewes to complete the lambing process before moving them to jugs will keep the jugs drier and help prevent injury to lambs in multiple birth situations. Lambing jugs should measure at least 5 ft. x 5 ft., with a maximum slat spacing of 3 in. Large breeds and multiple births may require larger jugs. The environment of the jug is critical to newborn lamb health and survival. The jugs should be kept well bedded, dry, and free of drafts. For facilities with cement floors, a base of lime or sawdust/shavings is recommended under straw. Cement floors can be cold and damp, and therefore a source of chilling and pneumonia in newborn lambs. When feasible, lambing jugs should be cleaned between ewes. Feed troughs and water bucket should be suspended out of the reach of newborn lambs.

The first 24-48 hours after birth are a critical time for the ewe and her lambs. During this time, bonding occurs between the ewe and her lambs. The jugs also assist the shepherd in keeping a close eye on the ewe and lambs during this time. Upon moving the ewe into the jug, the lambs' navels should be immersed in a 7% iodine solution. Iodine helps prevent infection and promotes drying of the navel.

Colostrum is the milk produced by the ewe up to 18 hours after birth. It has important nutritional value for the newborn lamb. Colostrum also contains essential antibodies that provide protection against certain diseases for the newborn lamb, and provides energy to keep the lamb warm. Newborn lambs are susceptible to hypothermia due to their large body surface area in relation to body weight, and relatively low energy reserves.

Lambs should receive adequate intakes of colostrum within 30-60 minutes after birth. To help insure this, the ewe's teats should be stripped to remove the wax plugs that frequently obstruct the teat. In some cases, lambs that appear to be nursing may not be getting milk due to these plugs. Stripping the teats will also confirm the ewe has milk. Lambs should be monitored closely to make sure they nurse. Lambs that have nursed will have a full stomach upon palpation. Crutching ewes prior to lambing will enhance the lamb's ability to access the udder, particularly with long-fleeced ewes. Lambs that have not nursed should be assisted. Most lambs have a strong suckling reflex shortly after birth, and will nurse when presented a teat. It may be necessary to close the lamb's mouth on the teat and/or squirt milk in the lamb's mouth to initiate suckling. An effort should be made to help the lamb nurse the ewe before other methods are used to get colostrum into the lamb.

In some cases, the lamb is unable to nurse the ewe even with assistance. These lambs may be small, weak, chilled, rejected by the ewe, or injured. In these cases, stomach tube feeding is necessary to get colostrum into the lamb. Lamb stomach tubes that attach to syringes are available commercially, and should be on hand for all shepherds. Lambs should receive 20 cc colostrum per pound of body weight. As a reference, 30 cc equals approximately 1 oz. Therefore, a 10 lb. lamb should receive 200 cc or about 7 oz. of colostrum in the first 30 minutes after birth. After the initial tube feeding, many lambs will respond and begin to nurse on their own. If not, the lamb may need to be tube fed 2-3 hr. after the initial feeding.

Source of colostrum for these cases is another important consideration. The first choice would be from the lamb's mother. If colostrum is not available from the ewe, another ewe that has just lambed may be a source. It is a good idea to freeze colostrum for future use from ewes that lose their lambs or ewes with singles that are heavy milkers. Colostrum should be pre-measured and frozen using ice cube trays or freezer bags. Frozen colostrum should be thawed with indirect heat (water bath), and not a microwave or direct heat as antibodies will be destroyed. In an emergency, goat or cow colostrum may be used. There are also artificial colostrum substitutes available commercially.

The ewe and her lambs need to be monitored closely the first few days after birth. Healthy lambs are content, and will stretch when getting up and wag their tails when nursing. A gant and weak appearance may be indicative of starvation. Check the ewe to be sure she has milk. In the case of multiple births, the smallest lamb may not be able to compete for the milk supply. Constipation can be a problem in newborn lambs if feces dry and mat down on the tail. Cleaning the area with a damp rag will alleviate this problem.

Time spent in the jug will depend largely on the number of jugs available and rate at which ewes are lambing. Strong, healthy singles may be removed from the jugs in 24-36 hr. after birth, and twins 48 hr. Triplets and ewes with weak lambs may need to stay in the jug for 3 days or more. Ewes and lambs should be removed from the jug as quickly as possible, as chances of pneumonia and diarrhea are greater the longer they are kept confined to the jugs. Labor requirements are also much greater when ewes are confined to the jugs.

Before turning out of jugs, pertinent information on the ewes and lambs should be recorded. Appropriate identification of the lambs (ear tags, paint brands, ear notches, etc.) should also be done at

this time. The ability to match a ewe with her lambs can be very beneficial as a management tool. Thin, poor-doing lambs may indicate a health problem in the ewe (mastitis) or inferior milking ability.

Virginia is largely a Selenium deficient state. Deficiency of Selenium and/or Vitamin E causes white muscle disease in lambs. For prevention of this disease and all-around flock health and performance, the ewe flock should be provided a high-selenium complete mineral mix specifically formulated for sheep during gestation (fed free-choice). Additionally, lambs should receive supplemental Vitamin E and Selenium in the first few days after birth.

Upon removal from the jugs, ewes and lambs should be put into a mixing pen with 3-4 other ewes and their lambs. This will help acclimate them, and they should be closely observed to identify abandoned and rejected lambs. After a day or two, the ewes can then be put into larger groups. Lambing jugs should be cleaned and rebedded after each ewe and her lambs are removed. Even though the area may look clean, urine and manure in the pen will release ammonia, which is harmful to the newborn lamb's lungs and can lead to pneumonia.