

# Virginia Cooperative Extension

A partnership of Virginia Tech and Virginia State University



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## Livestock Update

***Beef - Horse - Poultry - Sheep - Swine***

**January 2012**

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.

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

[www.ext.vt.edu](http://www.ext.vt.edu)

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## Dates to Remember

### BEEF

#### JANUARY

28 Beef Cattle Health Conference. College of Veterinary Medicine. Blacksburg. **Contact:** Anne Cinsavich, (540) 231-5261; email: [aclapsad@vt.edu](mailto:aclapsad@vt.edu)

#### FEBRUARY

1-4 Cattle Industry Convention and Trade Show. Nashville, TN. **Contact:** Scott Greiner, (540) 231-9159; email: [sgreiner@vt.edu](mailto:sgreiner@vt.edu)

7 VT Beef Webinar. **Contact:** Mark McCann, (540) 231-9153; email: [mmccnn@vt.edu](mailto:mmccnn@vt.edu)

9-10 VA Beef Industry Convention. Hotel Roanoke, Roanoke. **Contact:** Bill McKinnon, (540) 992-1009; email: [bmckinnon@vacattlemen.org](mailto:bmckinnon@vacattlemen.org)

#### MARCH

6 VT Beef Webinar. **Contact:** Mark McCann, (540) 231-9153; email: [mmccnn@vt.edu](mailto:mmccnn@vt.edu)

18 VA BCIA Southwest Bull Test Open House. Hillswinds Farm. Dublin.

**Contact:** Scott Greiner, (540) 231-9159; email: [sgreiner@vt.edu](mailto:sgreiner@vt.edu)

24 VA BCIA Southwest Bull Test Sale. Wytheville. **Contact:** Scott Greiner, (540) 231-9159; email: [sgreiner@vt.edu](mailto:sgreiner@vt.edu)

# **January Beef Management Calendar**

Dr. Scott P. Greiner

Extension Animal Scientist, VA Tech

## **Spring Calving Herds**

- Begin to gather calving supplies
- Keep late pregnant cows gaining 1.0 lbs per day
- Pregnant heifers and 3 yr olds should gain 2.0 - 2.5 lbs per day
- Conduct forage tests if not done earlier this year
- Keep high quality minerals available
- Review calving assistance procedures
- Stockpile a few gallons of colostrum
- Evaluate herd performance and breeding program- establish selection goals for bulls to be purchases (or AI sires)
- Soil test pastures not tested in last 3 years
- Order clover seed for frost seeding later this winter

## **Fall Calving Herds**

- Begin/continue breeding
- Check cow and bull body condition
- Supplement energy to young bulls during breeding season
- Conduct forage tests if not done earlier this year
- Continue to check calves closely for health problems
- Re-implant September and early October born calves that were implanted at birth
- Soil test pastures not tested in last 3 years
- Order clover seed for frost seeding later this winter

## **Cattle Handling: Enhancing Health and Quality**

Dr. W. Dee Whittier, Extension Veterinarian, Cattle  
VA-MD Regional College of Veterinary Medicine, VA Tech

Proper handling of cattle is an aspect of beef production that needs to be a concern for anyone involved in any of the stages of management. Not only is proper handling key to efficiency and safety, it impacts animal health and can have major influences on the quality of the final beef product.

Virginia Beef Quality Assurance is a program that operates in Virginia under the guidelines of the National Cattlemen's Beef Association, in cooperation with the Mid-Atlantic BQA alliance and through the efforts of Virginia Cooperative Extension and the Virginia Cattleman's Association. The BQA program has certified a large number of cattle producers in Virginia that represent a majority of the cattle produced each year in the state. The program requires that producers be recertified every 3 years. During the 2012-2015 cycle all recertifications will involve training in cattle handling.

### **Handling and Cattle Health**

In recent years, appropriate handling has been tied to impacts on cattle health. Cattle have two major systems to protect themselves. The first system is to deal with external threats. This system is sometimes called the "fight or flight" system. Think about this system as how a calf deals with a wolf attack. Most of the calves' resources are directed towards getting away from the wolf. There are a set of hormones and metabolism all geared to this fight-or-flight system. When we talk about the effects of "stress" on cattle health we are really referring to the switch to dealing with external threats.

The other protection system that cattle have is the one designed to deal with internal threats. People often call this the immune system, but it actually involves more than the cells and substances that are technically the immune system. The metabolism of energy and protein and systems that clear infectious agents from the respiratory or digestive systems are also part of the internal defense system. This system deals with cattle diseases caused by infections.

An important concept in cattle health is that the fight-or-flight system gets priority over the internal protection system. In the evolutionary history of cattle, it was more important to get away from the wolf than to deal with the bugs in the lung, for example. If the wolf got the calf, what did a few bugs in the lung matter?

Not only does the fight-or-flight system have priority over the disease protection mechanism, but once the external protection system is turned on, it stays on for a time. Hence, a calf that is subjected to a long chase at gathering before sale might still be in the external protection mode for several days.

Cattle handling becomes important because it is one of the major ways that the external defense system is triggered. Once the system is triggered it has big effects on the external protection or disease prevention approach, and this effect can last for several days.

Cattle handling can, itself, be severe enough to suppress disease prevention and allow cattle to get sick. Often there are a series of stresses that shift the internal priorities of calves into the external-protection mode. Think of calves that are roughly gathered, sorted with whips and hits, crowded with strange calves, roughly worked through a chute, separated from their dams and subjected to a long truck ride.

### **Aspects of Cattle Handling**

Proper cattle handling involves many factors. Three important aspects of handling include: 1) having appropriate equipment; 2) employing proper handler actions; and 3) using cattle handling aids in the proper way.

Each of these factors will be discussed in future articles. All three of these aspects must be appropriately dealt with if cattle handling is to be a non-stressful event. Even with a good set of working equipment, improper actions by handlers can trigger external protective reactions in cattle. Anxious use of a hot shot can negate all the arrangements made to have a low-stress working facility.

The goal for Beef Quality Assurance in Virginia is to have all personnel involved in the beef cattle industry in Virginia make improvements in cattle handling so that cattle can have maximum internal protection operating at all times. Besides, our consumers are increasingly concerned about how the cattle that produce their product have been handled.

## 2011 Culpeper Senior BCIA Bull Sale Results

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

The Virginia Beef Cattle Improvement Association hosted the 54<sup>th</sup> Annual Culpeper Senior Bull Sale on Saturday, December 10, 2011 at Culpeper Agricultural Enterprises near Culpeper, Virginia. Forty-eight fall-born bulls representing the top end of the 86 bulls tested sold for an average price of \$3019. The sale included 41 Angus bulls which averaged \$3083, 2 SimAngus bulls at \$2750, 2 Purebred Gelbvieh bulls at \$2800 and 3 Polled Hereford bulls at \$2467.

The high-selling bull was Angus Lot 48, consigned by Monomoy Farm of Warrenton, Virginia and sold to James Rumsey of Spotsylvania, Virginia for \$4400. This September 2010 son of GAR-EGL Protégé had a test YW of 1348, ratio 119, and test ADG ratio 105 along with +58 WW EPD, +101 YW EPD, +\$64.77 \$B EPD, MB EPD of +0.53 and IMF ratio of 176. The high station index bull was also a Monomoy Farm consignment, Lot 49, which commanded \$3400 and sold to Kenny Anderson of Culpeper, Virginia. Another son of GAR-EGL Protégé, this August 2010 bull had a test YW of 1347, ratio 119, and test ADG ratio 115 along with +61 WW EPD, +106 YW EPD, and scanned a %IMF ratio of 171.

The high sale order indexing bull was awarded to Lot 65, consigned by Little Windy Hill Farms of Max Meadows, Virginia and was sold to Mark Givens of Newport, Virginia for \$3500. This November 2010 son of Rito 7079 of Rita 5M46 OBJ had a weaning weight ratio of 112, yearling weight ratio of 117 and average daily gain ratio of 113, along with +59 WW EPD, + 104 YW EPD, +0.73 MB EPD, , +0.69 RE EPD, and + 71 \$B value.

The breeder group award was also presented to Little Windy Hills of Max Meadows, Virginia for their consignment of Angus bulls. In addition to the top sale order indexing lot, Lots 67 and 68 commanded prices of \$2900 and \$2800, selling to Jerry Graybeal of Christiansburg, Virginia and Forest Miller of Bridgewater, Virginia, respectively.

The strong Angus offering also included Lot 16, consigned by Quaker Hill Farm of Louisa, Virginia, which sold to Edward Scharer of Charlottesville, Virginia for \$4000. This high maternal son of SAV Bismark 5682 and had a CEM EPD of +12, Milk EPD of +26, a test ADG ratio of 108, and +32.13 \$W. Lot 39, a GAR New Design 5050 son bred by Edgewood Angus of Williamsburg, VA sold to Joseph Vaughan of Bumpass, VA for \$4000. This bull scanned with a 4.43 %IMF, ratio 127 along with EPDs of +11 CED, +0.0 BW, +53 WW, and +99 YW. Another strong consignment from Edgewood Angus, Lot 47, also commanded an outstanding \$4000 and sold to Charles Props of Mt. Solon, Virginia. This September 2010 ALC Big Eye D09N son, had a yearling weight ratio of 114 and test ADG ratio of 105, along with EPDs of +9 CED, +98 YW, +35 Milk, +0.53 MB, and +0.43 RE. Legacy at Pine Hill Farm of Forest sold Lot 75 to Beaverdam Run Farm of Oak Park, VA for \$4000. This calving-ease son of SAV Bismarck 5682 posted CED EPD +10, WW EPD, +60, YW EPD +104, RE EPD +0.52, and +33\$W.

The purebred Gelbvieh bull, Lot 601, was consigned by Little Windy Hills of Max Meadows, Virginia and sold for \$3800 to James Rumsey of Spotsylvania, Virginia. This homozygous

black, homozygous polled bull had WW EPD +45 and YW EPD +87 and was sired by DCSF Post Rock Granite 200P2.

Quaker Hill Farm of Louisa, Virginia was the consignor of both the SimAngus lots featured in the sale. A November 2010 son of GLS Combination R2, Lot 404, posted a yearling weight ratio of 110, along with an ultrasound RE ratio of 114 and sold to Bellevue Farm of Elberon, Virginia for \$3000. This homozygous black, polled bull also had EPDs of +67 YW, +0.51 RE, and -0.05 Fat.

The sale also featured three Polled Hereford lots consigned by Greeno Farms of Louisa, Virginia. Lot 204 was a November 2010 son of Schu-Lar 5N of 9L 3008 and posted EPDs of +4.5 CE, +0.8 BW, +0.31 MB, along with BMI and CHB index values of +\$26 and +\$29. This bull sold to Vince Garland of Village, Virginia for \$2500. Another high growth, high maternal bull, Lot 202 sold to David Spillman of King George, VA for \$2500. This Hereford bull posted EPDs of +6.1 CED, +56 WW, +87 YW, +6.8 MCE, +23 Milk, and +0.13 MB.

All bulls in the test and sale were consigned by members of the Virginia Beef Cattle Improvement Association. Bulls were tested at the Culpeper bull test station operated by Glenmary Farm, owned by Tom and Kim Nixon of Rapidan, Virginia. The sale was managed by Virginia BCIA and the Virginia Cattlemen's Association, and the auctioneer was Mike Jones.



Doug Hughes (left) of Little Windy Hills of Max Meadows, Virginia was the 2011 Virginia BCIA Culpeper Senior Bull Test High Sale Order Index Award Winner for his Angus lot 65 bull and Breeder Group award for his consignment of Angus bulls. John Pennington (right) of Monomoy Farm of Warrenton, Virginia was the 2011 Virginia BCIA Culpeper Senior Bull Test High Station Index Award winner for his Angus lot 49 bull.

**Virginia Tech Beef Cattle Health Conference**  
**Saturday January 28, 2012 - 9:00 am - 3:00 pm**  
 Dr. W. Dee Whittier, Extension Veterinarian, Cattle  
 VA-MD Regional College of Veterinary Medicine, VA Tech

- |                      |  |  |
|----------------------|--|--|
| <b>8:30 – 9:00</b>   | Registration   | <b>All Labs will be 30 minutes long</b>  |
| <b>9:00 – 9:20</b>   | Beef Vet Myths – Dr. John Currin   | <b>Lab 1</b> Cattle Whispering 101 –<br>Dr. John Currin  |
| <b>9:20 – 9:40</b>   | Economics of A New World of Beef<br>Nutritional Supplements –<br>Dr. Gordon Groover      | <b>Lab 2</b> Understanding EPD (Expected<br>Progeny Difference) –<br>Steve Fanning & Chad Joines |
| <b>9:40 – 10:00</b>  | Rabies in Cattle – Dr. Sarah Holland   | <b>Lab 3</b> What Has the Most Protein/Energy –<br>Dr. Dee Whittier                              |
| <b>10:00 – 10:15</b> | Morning Coffee Break   | <b>Lab 4</b> BQA/Vaccine Handling –<br>Andy Allen, Extension Agent                               |
| <b>10:15 – 10:35</b> | Purebred Bull Selection – Steve Fanning  |  |
| <b>10:35 – 10:55</b> | Cattle Whispering – Dr. Dee Whittier   |  |
| <b>11:00 – 11:20</b> | The New World of Antibiotic Use – Dr. Kevin Pelzer                                       |  |
| <b>11:20 – 11:40</b> | Getting Cattle Enough to Eat: Can We Afford to Fertilize? –<br>Jon Vest, Extension Agent |  |
| <b>11:40 – 12:00</b> | Travel to Alphin-Stuart Arena for Lunch - Guess the grain weight (Door Prize)            |  |

**Registration Fee:**

\$5.00 per person -- Free to anyone under 18

This fee includes lectures, laboratories, proceedings, and lunch on Saturday.

Attendance will meet the requirement for BQA recertification for those already certified in the Virginia Beef Quality Assurance program.

**Location:**

This course is being held at the College of Veterinary Medicine on the campus of Virginia Tech. The registration will be in the College Center.

**For More Information Contact:**

Anne Cinsavich 540-231-5261, [aclapsad@vt.edu](mailto:aclapsad@vt.edu) If you are a person with a disability and desire any assistive devices, services or other accommodations to participate in this activity, please contact Anne Cinsavich, VMRCVM at 540-231-5261 during business hours of 8:00 a.m. to 5:00 p.m. to discuss accommodations 5 days prior to the event. \*TDD number is (800) 828-1120.

**Registration Form**

**Please print or type – complete a separate form for each participant**

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_  
 State \_\_\_\_\_ Zip \_\_\_\_\_  
 Daytime Phone Number \_\_\_\_\_  
 Amount Enclosed \_\_\_\_\_

**Make check payable to: Treasurer of Virginia Tech**

**Return form with payment by January 24, 2012 to:**

Anne Cinsavich  
 Phase II, Room 301  
 College of Veterinary Medicine (0442)  
 Duck Pond Drive  
 Blacksburg, VA 24061

*Sponsored by the Virginia-Maryland Regional College of Veterinary Medicine, Department of Animal & Poultry Sciences, and Virginia Cooperative Extension.*



## **Beef Webinar Focuses on Sound Financial Management for Cattlemen - February 7<sup>th</sup>, 6:30pm**

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



Dr. Alex White, Instructor, Department of Applied and Agricultural Economics at Virginia Tech will be the featured speaker for the Beef Webinar sponsored by Virginia Cooperative Extension and scheduled for 6:30 p.m., Tuesday, February 7th. Dr. White is an Ag Economist, nationally recognized for his expertise in agriculture finance and financial management. Closer to home, Dr. White is a very popular teacher noted for his engaging classes and real world problem solving examples.

Dr. White will be providing a discussion of "**Financial Management for Cattlemen- Going beyond Schedule F**". This program will build upon his webinar last winter with a focus on how to keep and use records to assist cattlemen with their financial decisions for 2012. 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 Extension Agent about accessing the program at your local office. Producers with high speed internet service can access the meeting at home. The web link to join the meeting is posted 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.

The links to the recording of the nutrition program from December and the market outlook program from January can be accessed through the VT Beef Extension page. The final webinar is scheduled for March 6<sup>th</sup> and will focus on forage management. If you have questions, please contact Mark McCann at 540-231-9153.

## **Winter Care for Horses: When to Blanket**

Shea Porr, PhD, Assistant Professor, Equine Sciences  
Virginia Tech MARE Center

Who turned off the heat?!? While we're all no doubt geared up for 'Old Man Winter', it never hurts to review some of the basics of blanketing for horses.

Some of you may be eyeing your horse's blankets, wondering if you should put them on now. Some of you have had them on your horses for months. Most of the time, blanketing your horse does more for your peace of mind than actually helping the horse stay warm. A well-nourished, healthy horse can maintain their body temperature down to around 20° F before they need 'help'. At that point, help can come in the form of shelter (a thick stand of trees or a run-in shed), extra forage (more hay – cheap and warm!), blankets, or a combination thereof. Horses will adapt to colder temperatures in approximately 2 weeks without blankets. At first, you'll see them huddling with other horses, turning their hindquarters to the wind, and possibly using shelters more frequently. They may run around and play before standing in a group, sharing the warmth. Their winter hair will stand on end, creating an airspace that traps heat next to their skin. Some shivering is normal and is another way for them to generate heat. In no time at all, however, their metabolism will shift and they'll be comfortable again.

Well-meaning owners who improperly blanket horses can actually cause the horse to feel colder. A blanket forces the hair down against the body, removing the natural insulation. If the blanket has inadequate insulation, the horse will actually feel colder than if he didn't even have the blanket on!

Tips on when and how to blanket:

- Horses that are clipped or kept under lights to discourage winter coat growth should be blanketed if it's raining and below 60° F or if it's below 40° F;
- Horses with a moderate to heavy haircoat will be fine without a blanket down to 20° - 30° F. Even then, they may be able to get by with a little more shelter or forage;
- Horses that have recently moved from a warmer to a colder climate may benefit from blanketing the first winter, particularly if they come in when the weather's already cooled;
- Older horses, thin horses, or those that don't move around much may benefit from blanketing.
- Remove the blanket on a regular basis to check for rub marks, skin conditions, and body condition score.
- Make sure the blanket is waterproof. If you reach under the blanket, the horse should feel warm and dry.

For more information on equine health care and management, contact your local extension office or the Virginia Tech MARE Center!

## **Experiences With Sheep CIDRS to Induce Fall Lambing**

Drs. Scott P. Greiner and Mark A. McCann, Extension Animal Scientists, VA Tech  
Kayleigh Mize, Undergraduate Student, VA Tech

Historically strong market prices during the winter and early spring, along with increasing demand for lambs as youth project animals for spring shows are among the reasons interest among sheep producers to have fall-born lambs is on the rise. Favorable weather and forage production associated with fall lambing compliment these marketing opportunities. However, with sheep being very seasonal in their reproduction, fall-lambing is limited by the ability to get ewes pregnant in the spring. Among the options producers have to enhance spring breeding success is hormonal control of the estrous cycle to induce ovulation in ewes. Until recently, however, protocols and products approved specifically for sheep have been a limiting factor for wide-spread application. The sheep EAZI-BREED CIDR is now approved for use in the U.S. and provides sheep producers an additional tool for spring breeding. The CIDR is a vaginal insert which releases progesterone, and is labeled to induce estrus in ewes during seasonal anestrus. The CIDR is a simple, easy-to-use device that is inserted into the ewe for five days, with ram introduction to immediately follow. This paper summarizes the results of two on-farm applications utilizing CIDRs for spring 2011 breeding season.

### **Virginia Tech Dorset Flock**

Two groups of registered Dorset ewes were synchronized with CIDRs. Group 1 consisted of 43 ewes which lambed fall 2010, or mid-January through early February 2011 (weaned on March 29). Ewes were administered CIDRs on April 29 and introduced to one of 3 Dorset rams in single-sire breeding pastures. CIDRs were removed at either 5 or 7 days following insertion. A control group of 32 ewes were introduced to rams the same day as the synchronized ewes. These control ewes lambed fall 2010 (n = 11) or lambed along with the previously described set of ewes in Jan/Feb (n = 21). Control ewes received no CIDR. All rams had passed a breeding soundness exam and also determined to be active breeders through a libido test (placed with ewes in estrus to determine mating behavior). Ewes had been isolated from rams since lambing.

A second group of 16 ewes which lambed mid-February through early March, 2011 and weaned on April 19 were also synchronized. CIDRs were inserted May 26, removed after 5 or 7 days, and ewes were placed in 2 of the same single-sire breeding groups mentioned previously.

All ewes were in single sire breeding groups until June 13, at which time they were placed with Suffolk rams in multiple-sire breeding groups. Subsequent lambing records were analyzed and results are presented below.

Table 1. Pregnancy and lambing rate for synchronized and control ewes as impacted by service sire.

	All Service Sires		Service Sire A		Service Sire B		Service Sire C	
	CIDR <sup>a</sup>	Control	CIDR <sup>a</sup>	Control	CIDR <sup>a</sup>	Control	CIDR <sup>a</sup>	Control
Number ewes	59	32	23	13	15	8	21	11
Number ewes lambing (%)	35 (59%)	14 (44%)	16 (70%)	9 (69%)	2 (13%)	0 (0%)	17 (81%)	5 (45%)
Lambs born/ewe lambing	1.44	1.23	1.38	1.44	2.00	0.00	1.53	1.60
Lambs born/ewe exposed	0.88	0.67	0.96	1.00	0.27	0.00	1.24	0.73

<sup>a</sup> Includes ewes receiving CIDR for 5 or 7 days.

As shown in Table 1, overall pregnancy rate for ewes synchronized with CIDRs was 59% compared to 44% for control ewes. Lambs born per ewe lambing was similar for synchronized vs. control ewes, however lambs born per ewe exposed favored synchronized ewes due to higher pregnancy rates. Evaluation of the affect of service sire revealed one sire group (Sire B) had much lower pregnancy rates as a result of poor ram performance. Excluding ewes exposed to Sire B, overall pregnancy rate was 75% (33 of 44 ewes) for ewes receiving CIDR and 58% (14 of 24) for control ewes.

Table 2. Pregnancy and lambing rate for ewes synchronized with CIDR for 5 vs. 7 days.

	5 Day CIDR	7 Day CIDR
Number ewes	30	29
Number ewes lambing (%)	20 (67%)	15 (52%)
Lambs born/ewe lambing	1.50	1.47
Lambs born/ewe exposed	1.00	0.76

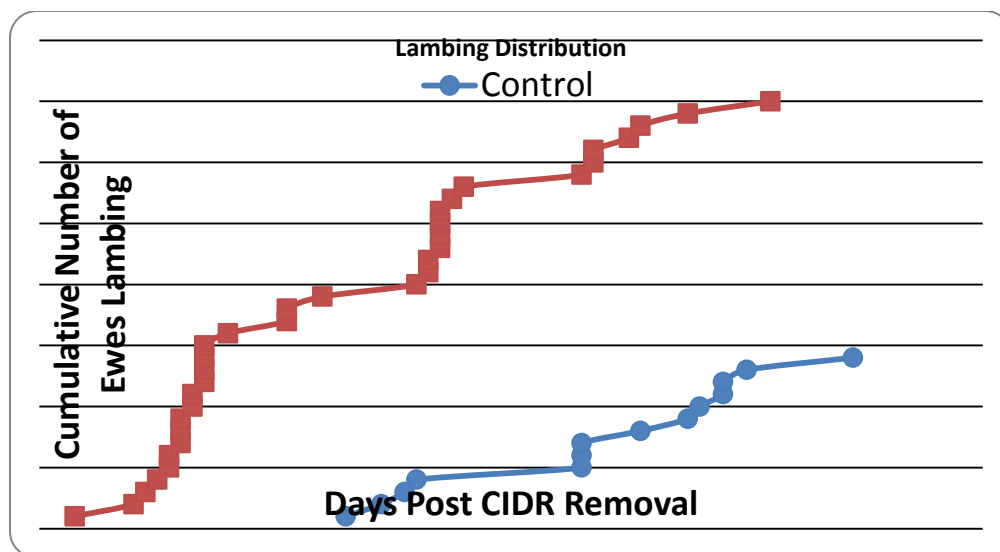
Table 2 compares impact of CIDR removal after 5 vs. 7 days. Pregnancy rates were slightly higher for ewes receiving the 5-day CIDR, with lambing rate similar between the two treatments. CIDR removal was staggered to reduce the number of ewes expected to be in estrus at any one time in the single sire breeding groups (avoid too many ewes in heat at one time).

Table 3. Pregnancy and lambing rate for ewes synchronized in April vs. May.

	CIDR Late April	CIDR Late May
Number ewes	28	16
Number ewes lambing (%)	23 (82%)	10 (63%)
Lambs born/Ewe lambing	1.39	1.60
Lambs born/ewe exposed	1.14	1.00

Table 3 compares data from ewes synchronized in late April vs. those synchronized in late May. Both sets of ewes were exposed to common service sires A and C (ewes synchronized in April and bred to sire B, the poor libido ram, are not included in this summary as May-synchronized ewes were not exposed to sire B). The higher pregnancy rate for ewes synchronized in late April may partially be attributed to ewe age, as this set of ewes was primarily mature ewes compared to the group synchronized in late May which had a higher proportion of yearling ewes. The post-weaning interval was similar for both sets of ewes (~35 days). Further analysis of the data revealed that only 42% of yearling ewes lambed (both CIDR and controls) compared to 58% for 2-year olds and 56% for ewes 3 years and older across all service sire groups. There were no ewe lambs included in the project.

Both fall and spring lambing ewes were utilized in this study. Response to CIDR was similar for ewes which had lambed the previous fall to those which lambed in the winter and were synchronized 30-40 days after weaning. There was also no difference in pregnancy rate among control ewes based on season of previous lambing. However, there were a limited number of ewes which had not successfully lambed for over a year prior to this study. Of this group, only 29% lambed, which is much lower than the 58% overall pregnancy rate achieved by all other ewes included in the study.



The above chart presents the lambing distribution for synchronized vs. control ewes. Approximately one half of the ewes receiving CIDRs lambing to the first synchronized estrus (marked by ram 24-48 hrs. after CIDR removal, and lambing 145-150 days later). An additional portion of the ewes became pregnant during their next estrus cycle, and the remainder during cycles which followed. The control ewes responded to the ram effect, with a few ewes breeding 17-24 days after placing with rams, lambing 160-167 after CIDRs removed from synchronized ewes and roughly coinciding with the repeat cycle for synchronized ewes.

The cost of synchronization is associated with the cost of the CIDR as well as additional labor and management required. Assuming a CIDR cost of \$5 each, cost per pregnancy for synchronized ewes was \$8.43 (CIDR cost only considered).

### **Farm B, Giles County, Virginia**

A total of 25 Hampshire x Suffolk crossbred ewes were synchronized. These ewes lambing late January through February, 2011. Ewes were weaned in late April. This flock had never exposed ewes for fall lambs. Ewes were synchronized using a CIDR removed at 6 days (n = 8), 8 days (n = 8) or 10 days (n = 9). Ewes were placed in single-sire breeding pasture with Hampshire x Suffolk crossbred ram at the time CIDR removal (late May). The ram was subjected to a breeding soundness exam prior to placing with ewes. Ewes remained with the ram for ~20 days. Ewes were shorn on July 4<sup>th</sup> and pregnancy was determined by ultrasound on August 14. Ewes lambing 10/23-10/30. Results are presented below.

	Ewes Marked	Ewes Pregnant	Ewes Open	Lambs Born Per	
				Ewe Lambing	Ewe Exposed
CIDR (6, 8 or 10 d)	19 (76%)	10 (40%)	15 (60%)	1.4	.56

Assuming a CIDR cost of \$5 each, cost per pregnant ewe was \$12.50 and cost per lamb born was \$8.93 in this flock (CIDR cost only considered).

Collectively, these on-farm experiences underline several key points when synchronizing ewes for spring breeding:

- Whiteface/Dorset ewes will probably respond more favorably to spring synchronization than blackface ewes
- Ram fertility and libido is critical, conduct BSE on rams and observe closely; use of a marking harness will increase accuracy of monitoring
- Ewe:ram ratio should not exceed 18:1 and may need to be lower depending on the age and capacity of the ram. Single ram flocks should stagger CIDR removal (every 2-3d) to avoid overworking the ram
- Ewes should be in good body condition, weaned and recovered from the weaning process
- Ewes should not be exposed to rams prior to synchronization
- Minimize stress on ewes during and immediately following breeding season (heat, transportation)

For additional information and details on CIDRs, see the 2011 Shepherd's Symposium Proceedings paper by Dr. Keith Inskip from West Virginia University. This document is available on the VT Sheep Extension site at

<http://www.apsc.vt.edu/extension/sheep/programs/shepherds-symposium/proceedings.html>

## Hay Quality and Supplementation for the Sheep Flock

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The foundation of all flock nutrition programs should be quality forage. Table 1 contains the CP (crude protein) and TDN (total digestible nutrient) requirements of a 180 lb ewe across different stages of production. Under grazing conditions, forage can meet a ewe's energy and protein requirement except during lactation. Spring lambing flocks can take advantage of new pasture growth which is very digestible and high in protein. Generally, this will meet the nutrient needs of ewes nursing singles. Ewes nursing twins will respond to low levels (1-1.5lb/d) of energy supplementation.

However, the forage supplied to the flock during the winter months is generally in the form of hay. There is a large variation in hay quality beyond forage variety and cutting. Fertilization and harvest conditions have a significant impact on hay quality. Visual evaluation and comparison can detect gross differences between hays, but do little to estimate nutrient content. Only through forage testing can the nutrition content be estimated and a feeding program devised. Farmers can distinguish between their top and bottom hays when the hay is harvested. However, the question then becomes "How good is the better hay and how bad the poor hay is?" The only way to answer that question is to sample the hay and submit the samples to a testing laboratory. VCE Publication Number 404-300 "The Basics of Forage Testing" discusses in more detail sampling procedures and comparison of results.

As potential hays are evaluated, the following tables are helpful in comparing hay nutrient content to a stage of production for the ewe and potential feedstuffs that fulfill deficiencies.

Table 1. TDN and CP Requirements of 180 lb ewe

<b>Stage of Production</b>	<b>TDN Lb/d</b>	<b>CP Lb/d</b>	<b>Voluntary DM Intake Lb/d</b>	<b>Percent TDN*</b>	<b>Percent CP*</b>
Maintenance	1.6	.27	2.9	55.0	9.3
Early Pregnancy	1.8	.31	3.3	55.0	9.4
Late Gestation	2.9	.49	4.4	65.5	11.1
Early Lactation	4.3	.96	6.6	65.5	14.5

\* Percentage of the Dry Matter

Table 2 contains the amount of energy and protein supplementation needed to balance hay of varying qualities for 180 lb ewes across stage of production. Corn and soybean are used as standard supplements but other feeds can be substituted. Beyond balancing hay quality with flock nutrient needs, there are a couple of advantages to sampling hay as it harvested:



Testing results provide quick feedback as to how successful your efforts in making quality hay were. Many times the weather and other uncontrollable factors (equipment breakdowns, etc) spoil the best intentions. Forage testing indicates how far from the goal the hay quality is and provides some perspective on how much rain or maturity impacted forage quality. Many times the results exceed expectations.

Second, the early identification of high quality hay can allow decisions to be made regarding storage of the hay if options are available. If limited shelter is available, clearly the best hay needs to be in the dry.

Third and perhaps most overlooked. Quick testing allows quick identification of cuttings which need to be recorded for future reference. Too many times hay of varying quality is stored together. Next winter it will all look the same when it is covered in snow. As the above table indicates, there are major nutritional impacts.

Lastly, correctly matching hay and cow needs is the most efficient and least costly method of feeding cows through the winter. Without forage analysis, many times additional feed is provided needlessly or inadequate supplementation is provided.

In today's environment of high input costs and slim margins, having the facts on hay quality can improve the accuracy and cost effectiveness of nutrition and management decisions.

**Table 2. Forage Quality and Supplementation (176 lb ewe)<sup>1</sup>**

Forage Analysis		Early <sup>2</sup> Gestation		Late <sup>3</sup> Gestation		Early <sup>4</sup> Lactation		Late <sup>5</sup> Lactation	
CP % of DM	TDN % of DM	Lbs SBM	Lbs Corn	Lbs SBM	Lbs Corn	Lbs SBM	Lbs Corn	Lbs SBM	Lbs Corn
11.2 & over	56 & over	-	-	-	.75	.5	2.5	.3	1.5
9.5 - 11.1	56 & over	-	-	.15	.75	.8	2.5	.45	1.5
	53 - 56	-	-	.15	.85	.8	2.7	.45	1.65
	50 - 53	-	-	.15	1.0	.8	2.9	.45	1.80
8.2 - 9.5	54 - 56	-	-	.25	.8	1.0	2.5	.55	1.5
	51 - 54	-	.2	.25	1.0	1.0	2.75	.55	1.75
	50 & under	-	.4	.25	1.2	1.0	3.0	.55	2.0
7.3 - 8.2	53 - 55	.1	-	.4	.8	1.1	2.5	.6	1.5
	51 - 53	.1	.2	.4	1.0	1.1	2.75	.6	1.75
	50 & under	.1	.4	.4	1.2	1.1	3.0	.6	2.0
Under 7.3	Under 48	.2 - .3	.5 - 1.0	.4 - .5	1 - 1.5	1.2 - 1.5	2.5 - 3.5	.7 - .8	2.0 - 3.0

<sup>1</sup> Recommendations are made on basis of 44 % soybean meal and ground shelled corn. Other supplements can be used to deliver the same amount of energy and protein.

<sup>2</sup> Dry ewes in the first 15 weeks

<sup>3</sup> Last 4 weeks of pregnancy (200% lambing rate expected).

<sup>4</sup> First 6-8 weeks of lactation suckling twins

<sup>5</sup> Last 4- 6 weeks suckling twins.

\*\* Note 1.5 lbs of corn gluten feed can replace 1.0 lb corn and .5 lb soybean meal.

## **Tammi Receives Roy A. Meek Outstanding Sheep Producer Award**

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Leo Tammi of Mount Sidney was the recipient of the Roy A. Meek Outstanding Sheep Producer Award presented January 7, 2012 at the Virginia-North Carolina Shepherd's Symposium held in Blacksburg, VA. The award is presented annually by the Virginia Sheep Producers Association (VSPA) to recognize individuals who have made outstanding contributions and leadership to the sheep industry in Virginia.

Leo, along with his wife Judy and son Aaron operate Shomoka Run, a family sheep farm, in the Shenandoah Valley. Leo and Judy started Shamoka Run Farm 30 years ago upon moving to Virginia from Newark, DE seeking more acreage to grow their operation. Their flock consists of over 500 Polypay ewes with lambs marketed through a variety of mainstream and niche outlets. Leo has long been an active supporter of the sheep industry and has consistently participated in local, state and national sheep advocacy organizations. Leo has served as national director with the American Sheep Industry Association and on several ASI committees including the Legislative Action Council and Guard Dog Committee. He is currently a member of the American Farm Bureau Federation's sheep and goat committee. In December of 2011, Leo was appointed by USDA Secretary Tom Vilsack to the Lamb Promotion, Research and Information Board as a producer representative. Leo has served as president of the American Polypay Sheep Association. In addition, Leo is also a strong proponent of forage stewardship that has led Shamoka Run to being recognized for enhanced production and conservation of its natural resources. Leo is past president, and currently a board member of the Virginia Forage and Grassland Council. Leo has long been noted for his desire to remain educated and take a proactive role for animal agriculture. He remains a cornerstone shepherd in his home of Augusta County and an asset to the sheep business both in Virginia and the United States.