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

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College of Agriculture and Life Sciences

VSU VIRGINIA STATE

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Livestock Update

Beef - Horse - Poultry - Sheep - Swine

September 2010

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

Dates to Remember

BEEF

OCTOBER

6 VA Field Day. Culpeper Ag Enterprises. Culpeper. 3:00 p.m. ***Contact:*** American Simmental Association, (406) 587-4531; email: simmental@simmgene.com

GENERAL

OCTOBER

29 16th Annual Hokie Harvest Sale. Alphin-Stuart Arena. VA Tech Campus. Blacksburg. ***Contact***: Dan Eversole (540) 231-4738, email: deversol@vt.edu

HORSE

SEPTEMBER

16-19 State 4-H Horse and Pony Show. Virginia Horse Center. Lexington, VA
Contact: Celeste Crisman, (540) 231-9162, email: ccrisman@vt.edu or Joi Saville, (540) 231-2257, email: joi.saville@vt.edu

25-26 State Fair Horse Show Competition. Doswell. ***Contact***: Eleszabeth E. McNeel, email: e7aquila@aol.com

SHEEP

DECEMBER

4 VA Sheep Producer's Association Fall Bred Ewe Sale. Rockingham County Fairgrounds. Harrisonburg. 1:00 p.m. ***Contact:*** Corey Childs, 540-955-4633.

September Beef Management Calendar

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

Spring Calving Herds

- Inventory feed supplies, test hay for nutrient content and plan winter feeding strategies
- Give pre-weaning vaccinations to calves
- Make final preparations for calf crop marketing program
- Pregnancy check cows
- Body condition score cows at weaning and separate thin cows
- Put open, old and very thin cows on cull list
- Make arrangements for backgrounding calves
- Continue feeding high Se trace mineral salt
- Continue to stockpile forages, if possible

Fall Calving Herds

- Body condition score cows; plan nutrition and grazing program on BCS
- Inventory feed supplies, test hay for nutrient content and plan winter feeding strategies
- Make sure all calving supplies are on-hand
- Move pregnant heifers and early calving cows to calving area about 2 weeks before due date
- Check cows 3 to 4 times per day; heifers more often – assist early if needed
- Keep calving area clean and well drained; move healthy pairs to large pastures 3 days after calving
- Ear tag all calves at birth; castrate male calves in commercial herds
- Give selenium and vitamin A & D injections to newborn calves
- Feed cows extra energy after calving especially to two-year-olds; cows calving at BCS < 5 should receive special nutritional attention
- Keep high quality, high Selenium, high magnesium minerals available
- Plan estrous synchronization program, line-up AI technician and supplies

Managing Pastures for the Stocker Operation

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

Effective and efficient use of grazed forages is the foundation of many stocker operations. In the foot hills and mountains of the Mid-Atlantic that usually translates into a tall fescue based program. Many variables influence the profitability of these grazing programs, some are related to the forage program and others are outside the forage area such as health and marketing which play large roles in determining success. I will focus my comments to those variables and decisions related to forage programs and their impact on cattle performance and potential profitability.

When envisioning forage goals for stocker performance; keep in mind the fundamental relationship which will drive grazing animal growth is the total amount of nutrient intake (TDN, NEg, CP).

Nutrient intake= (Amount of forage consumed) X (Nutrient content)

Also realize that a fundamental principle of forage growth is as the age of the plant increases, quantity usually increases and nutrient content declines. Changes in forage quality have additional impact on total nutrient intake beyond the nutrient content of the forage. As intake of more mature forage occurs it has a higher content of cell walls and less cell contents. The cell walls are less digestible and have a longer retention time in the rumen. Therefore, the calf feels full and will consume less forage. The net effect will be the combination of slightly less forage consumed which has a lower nutrient content.

As cattle performance plans or goals are formulated, estimates or expectations of cattle gain are a key piece of the puzzle. Nutrient requirements of growing calves (Table 1) increase with higher levels of daily gain or as it occurs in the practical world, stocker calves will achieve greater levels of growth with consumption of higher quality forage, as long as forage amount is not limiting. From a grazing management perspective one of the challenges is to manage forage resources in way that maintains vegetative growth and manages the maturation of the cool season perennial grasses. From a stocker budget perspective, inexpensive cost of gain is critical to profitability.

Table 1. Nutrient Requirements of Growing Steer and Heifer Calves[1,2]

Wt., lb	Daily gain, lb/d	DM intake, lb/d	TDN intake, lb/d	TDN, %	CP intake, lb/d	CP, %
300	0.5	7.8	4.2	54	.73	9.4
	1.0	8.3	4.8	58	.95	11.5
	1.5	8.6	5.4	63	1.17	13.7
	2.0	8.6	5.8	68	1.40	16.2
	2.5	8.6	6.3	73	1.61	18.7
400	0.5	9.7	5.2	54	.85	8.8
	1.0	10.3	6.0	58	1.07	10.4
	1.5	10.6	6.7	63	1.30	12.2
	2.0	10.7	7.3	68	1.51	14.1
	2.5	10.7	7.8	73	1.72	16.1
500	0.5	11.5	6.2	54	.97	8.4
	1.0	12.2	7.1	58	1.19	9.8
	1.5	12.6	7.9	63	1.41	11.2
	2.0	12.6	8.6	68	1.63	12.9
	2.5	12.6	9.2	73	1.84	14.6
600	0.5	13.2	7.1	54	1.08	8.2
	1.0	14.0	8.1	58	1.31	9.3
	1.5	14.4	9.1	63	1.52	10.6
	2.0	14.4	9.8	68	1.74	12.1
	2.5	14.4	10.5	73	1.95	13.5
700	0.5	14.8	8.0	54	1.18	8.0
	1.0	15.7	9.1	58	1.42	9.0
	1.5	16.2	10.2	63	1.64	10.1
	2.0	16.3	11.1	68	1.85	11.3
	2.5	16.2	11.8	73	2.05	12.7

[1] 1,200 lb at finishing, [2] Adapted from 2000 NRC Nutrient Requirements of Beef Cattle

If we apply the previously discussed principles of forage quality and intake in an example:

Situation spring forage TDN = 70% and 400 lb calves consuming 2.5% of BW in DM
2.5% x 400 =10 lb DM/d x 70% = 7 lb TDN/d (1.75 lb/d expected gain from table)

Situation summer forage TDN = 62% same calves consuming 2.2% of BW in DM
2.2% x 400 = 8.8 lb DM/d x 62% = 5.5 lb TDN/d (.75 lb/d expected gain from table)

Although this is an example, the principles and results demonstrate what happens during the course of a grazing season. When forage quality is marginal, one method of assisting animal performance is providing additional grazing area which will allow greater animal selectivity. The following table (Hammond et al, 1970) indicates the impact of differing forage availability on steer daily gain. As standing forage and the calf's ability to select their diet declined, so did their performance.

Table 2. Impact of Grazing Pressure and Management on Steers Grazing Orchardgrass Pastures

	Grazing Pressure		
	Light	Medium	Heavy
Continuous			
Available forage, lbs DM/ac	1200-1600	600-1200	200-500
Grass height, in	4-6	3-5	2-3
ADG, lb/d	1.5	1.2	.73
Rotational			
Available forage	1200-1800	600-1200	200-600
Grass height	4-6	3-5	2-3
ADG	1.5	1.1	.81

Management Tips for Stocker Forage Systems

1) In spring-summer systems, control and take advantage of the spring forage growth through additional grazers or harvest as hay. Forage nutrient composition will be at its best during this time. Wintered yearlings are well positioned to keep up with and take advantage of this extra forage production. Spring purchased calves are not as capable to keep up with the spring growth and management plans need to address methods (haying, etc) to manage extra forage. Stocking spring calves heavier will reduce waste during the rapid growth phase but can leave pastures overstocked in the summer months unless there is additional pasture available. Rotational grazing can be used to manage the maturity of this extra growth.

2) Maintain legumes in grass stands. Clovers are the most economical way to add N back to grass pastures. They have the additional benefit of holding their nutritional quality longer than grasses and particularly red clover has the ability to make valuable contributions to available forage during the hot months of the summer. Although Dutch clover is the easiest to manage and most prevalent of the white clovers, it also makes the smallest dry matter contribution. Ladino clover will generally produce the most forage; however, it is also the shortest lived as compared to Dutch and Intermediate clovers. Ladino and red clovers will generally need to be frost seeded every 2-3 years to supply a significant component of the animal's diet. Be aware that stockpiling tall fescue is stressful for clover stands. Areas where the clover stand is poorest are the best choices for stockpiling. Close strip grazing of the stockpiled area will have it prepared for next winter's frost seeding of clovers.

3) Stocking rate is the most common problem in dealing with sub par grazing performance of stockers. Just as it is critical in marketing programs to work in load lots; it is equally critical to stock pastures appropriately. Lighter stocking rates with more available forage usually will allow for greater individual animal performance and also allow some reserve for dry periods. Stocking at rates that worked well during wet years will simply result in overgrazing during drier years. Remember the impact of grazing pressure on available forage quality as well as quantity. By-products, hay or silage can be supplemented to have a sparing effect on pasture forage.

4) Stockpiling tall fescue beginning in August can greatly reduce or eliminate hay needs. The negative impact of infected fescue is greatly reduced during the fall and winter months. Additionally, stockpiled fescue will maintain its nutrient content into the winter.

Lighter weight stockers will respond to low levels of energy and protein supplementation after the top portion of stockpiled fescue has been grazed.

5) The addition of an ionophore will still enhance efficiency and profitability in grazing programs and should not be overlooked. Most products can be fed in a supplement, mineral mix or in a molasses block. Results are dependent on consumption of the product at recommended levels so free choice sources such as mineral and blocks need to be monitored.

Stocker enterprises are characterized by risk and margins some of which can be managed in marketing and herd health programs. Forage programs, while less predictable, can also be managed in a way to be more dependable through management of resources, selection of varieties and grazing management. The one ingredient which cannot be predicted but must be managed around is rainfall. By being somewhat conservative and following best management practices, the chances for satisfactory pasture and cattle performance is enhanced.

Virginia Retained Ownership Program Summary

Dr. Scott P. Greiner, Extension Animal Scientist and
Joi Saville, Extension Associate, VA Tech

Marketing options which add value to the calf crop are a critical component of successful cow-calf enterprises. One such strategy is retained ownership to harvest. Retained ownership provides the greatest opportunity for cow-calf producers to realize the true value of their cattle as it relates to superior genetics, health and management. At the same time, retained ownership also has its challenges, including increased risk associated with market conditions, cattle performance and production risk, and additional time and cost. The first step to considering retained ownership as a marketing option is to appreciate the many factors involved and to establish baseline information regarding herd genetics and health so that informed decisions can be made regarding the expected performance of the calf crop under a retained ownership venture.

The Virginia Retained Ownership Program provides cow calf producers the opportunity to retain ownership on a small portion of their calf crop (as few as 5 head). This program, and others like it across the country, allow producers to pool their calves and feed them together in order to gather objective data regarding the feedlot performance, carcass merit, and health of their cattle. This information can be used to make herd decisions regarding genetics and management-ultimately helping the herd improve and become more profitable regardless of how the calf crop is marketed in future years.

As stated earlier, retained ownership provides the greatest opportunity to realize the full value of the calf crop. Retaining ownership with little knowledge or history of feedlot, carcass, and health performance is a risky proposition. Retaining ownership on a few calves minimizes this financial risk, and more importantly provides data and experience which can be beneficial in the future.

The following table presents information from the Virginia Retained Ownership Program for cattle fed March through December 2009. This summary includes seven pens of cattle and a total of 766 head shipped on four different dates. All cattle were fed in feedyards associated with the Tri County Steer Carcass Futurity program in Southwest Iowa. Presented in the table are average values by pen as well as overall. During the period, steers and heifers participating in the program returned an additional $44 per head through retained ownership compared to assigned value as a feeder calf departing Virginia. Net return to the cow reflects total dollars generated which are available to offset production costs (calculated as value of the calf as a feeder, plus or minus added value through retained ownership). The $603 average net return to the cow compares to $580 per calf in VA ROP for the same period 2008-09. Differences across pens of cattle indicate that there is considerable variation in production parameters. These differences are the result of variability in genetics and health of the cattle as well as market conditions (feed and cattle prices). Just as much variation commonly occurs within pens of cattle, and it is common for there to be a $200 spread in the true value of cattle fed in the same pen based on differences in performance, health, and carcass merit.

Historical data gathered through the Virginia Retained Ownership Program and elsewhere establish the following common variable for successful retained ownership:

- Excellent health (minimal sickness and low treatment costs)
- Strong growth performance, which equates to heavy live weights and carcass weights at harvest

- Desirable carcass merit with high percentage low Choice or better

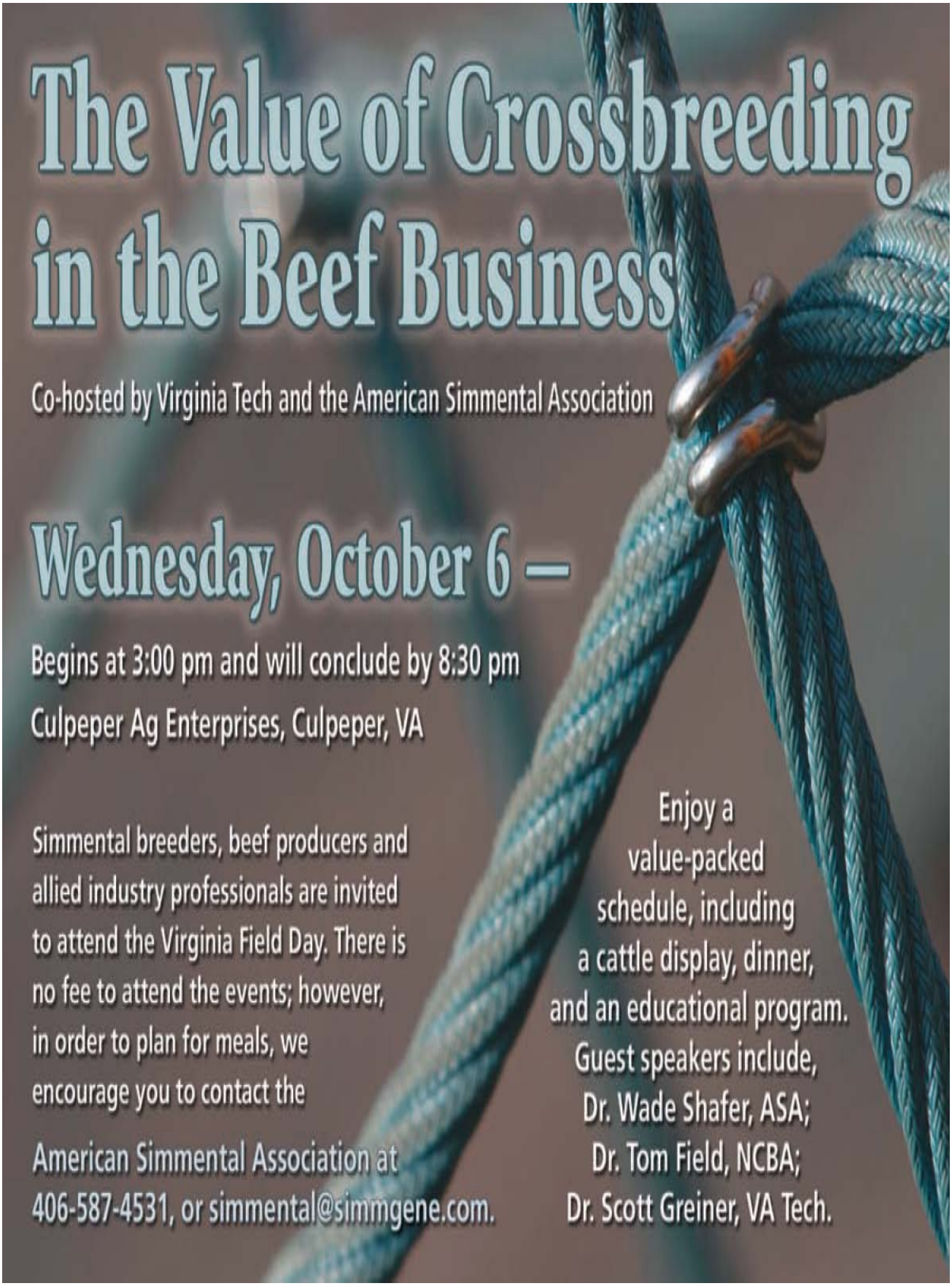
Collectively, these factors equate to low costs of gain and optimum gross returns. Risk management strategies for feed and slaughter cattle prices are also important components of successful retained ownership ventures.

Virginia Retained Ownership Program Summary
for Cattle Shipped March - December 2009

	Steers & Heifers	Steers & Heifers	Steers & Heifers	Steers & Heifers	Steers & Heifers	Heifers	Steers	766 Head Avg.
Ship date	Mar. 2009	Mar. 2009	Sept. 2009	Sept. 2009	Nov. 2009	Dec. 2009	Dec. 2009	
No. head	70	131	65	59	151	120	170	
IA delivery wt., lb.	728	712	721	885	682	589	687	697
ADG, lb./day	3.59	3.79	3.36	4.04	3.00	2.72	3.11	3.28
Feed:gain	6.59	6.14	7.74	6.93	7.85	7.20	6.71	7.01
Harvest dates	6/10 – 8/5/09	7/8 – 8/12/09	1/5 – 2/9/10	12/8/09 – 1/5/10	4/5 – 5/11/10	5/11 – 6/14/10	4/27 – 6/1/10	
Carcass price, $/cwt.	130.83	129.30	135.33	130.45	158.58	156.47	154.69	145.70
Cost of gain, $/cwt.	76.23	72.24	81.14	75.63	82.12	91.34	85.80	81.57
Retained ownership profit/loss, $/hd.	- 60	- 61	- 66	+ 17	+ 162	+ 122	+ 58	+ 44
Net return to the cow, $/hd	548	523	568	687	688	563	623	603

The key component for considering retained ownership as a marketing option is to be able to predict, with some degree of confidence, how your cattle will perform. This is much more effectively predicted with some feeding history on your cattle.

The Virginia Retained Ownership Program ships steers and heifers multiple times each year (September, November, December, March). Producers can participate with as few as five head. A 45-day weaning and backgrounding period is required prior to shipment. There is a minimal consignment fee of $5, and all expenses are financed through the program (deducted from proceeds- no interim feed payments required). An advance of $300 per head is available to producers sending ten or more head. For detailed information, including consignment forms, on the Virginia Retained Ownership Program visit the Virginia Tech Beef Extension site at http://www.vtbeef.apsc.vt.edu/ or contact Joi Saville at 540-231-2257 or Scott Greiner at 540-231-9159.


The Value of Crossbreeding in the Beef Business
Co-hosted by Virginia Tech and the American Simmental Association
Wednesday, October 6 –
Begins at 3:00 pm and will conclude by 8:30 pm
Culpeper Ag Enterprises, Culpeper, VA
Simmental breeders, beef producers and allied industry professionals are invited to attend the Virginia Field Day. There is no fee to attend the events; however, in order to plan for meals, we encourage you to contact the
American Simmental Association at 406-587-4531, or simmental@simmgene.com.
Enjoy a value-packed schedule, including a cattle display, dinner, and an educational program. Guest speakers include, Dr. Wade Shafer, ASA; Dr. Tom Field, NCBA; Dr. Scott Greiner, VA Tech.

16th Annual Hokie Harvest Sale

Dr. Dan E. Eversole
Animal Scientist, Beef Cattle Production & Management, VA Tech

There will be a student-run livestock sale of university beef cattle and swine at the Virginia Tech Beef Cattle Center and the Alphin-Stuart Livestock Teaching Arena on Friday, October 29, 2010. Students with Junior and Senior status enrolled in the Livestock Merchandising class taught by Dr. Dan Eversole will learn the underlying principles and pertinent activities involved in successfully promoting and merchandising livestock. Guest speakers have been invited to discuss specific skills in salesmanship, cataloging, photography, budgeting, facility development, and advertising.

Forty-nine head of beef cattle and 10 commercial bred gilts will be catalogued for this sale. A wide assortment of purebred and commercial beef cattle of various ages and breeds will be offered for public auction. The breakdown of sale lots is as follows:

PUREBRED AND COMMERCIAL BEEF CATTLE

- 18 bred cows
  - 4 Angus
  - 2 Hereford
  - 12 Commercial
- 6 weaned calves
  - 4 Angus
  - 2 Hereford
- 3 fall-calving cows
  - 3 Angus
- 19 yearling bulls
  - 2 Hereford
  - 12 Angus
  - 5 Simmental

SWINE (Silent Auction)

- 10 commercial bred gilts

SALE DAY ACTIVITIES

3:30 – 7:00 pm	Buyer Registration
4:00 – 5:30pm	Swine Sale – Alphin-Stuart Arena
4:30 – 6:00 pm	Complimentary Barbecue Dinner
6:30 pm	Cattle Sale – Livestock Judging Pavilion

Sale catalogs can be obtained by contacting Dr. Dan Eversole:
(540/231-4738 or at deversol@vt.edu)

Visit our catalog on the Internet after October 9th
www.apsc.vt.edu (Select: Beef Cattle Center or Swine Center)

Sheep Update

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

2010 Virginia Performance Tested Ram Lamb & Replacement Ewe Lamb Sale Results

The 35th Annual Virginia Performance Tested Ram Lamb Sale was held at the Virginia Sheep Evaluation Station at the Virginia Tech Shenandoah Valley AREC near Steeles Tavern on Saturday, August 28. A total of 41 rams sold for an average price of $433. Top-selling ram was a North Country Cheviot consigned by High Road Sheep of Covington, VA which sold for $670. As a new addition to the day's activities, an educational field day was held prior to the sale with a nice crowd on hand. Replacement ewe lambs were sold immediately following the rams. A total of 26 ewe lambs sold for an average price of $272. Double Scott Farm of Princeton, WV consigned the top-selling lot of ewe lambs with a pair of Suffolks selling for $360 each. Rams and ewe lambs sold to buyers in Virginia, West Virginia, North Carolina and South Carolina. Sale results were as follows:

RAMS	**Sale Average**
20 Suffolk	$459
6 Fall Dorsets	$478
6 Winter Dorsets	$382
3 Katahdins	$303
2 North Country Cheviot	$603
2 NC Cheviot x Suffolk Crossbreds	$400
2 White Dorper	$250
41 Total Rams	**$433**
EWE LAMBS	
26 ewe lambs	$272

The Virginia Ram Lamb Performance Test and Replacement Ewe Lamb Sale is sponsored by the Virginia Sheep Producer's Association. Information on the 2011 test and sale may be attained from Scott Greiner, Extension Sheep Specialist, Virginia Tech, phone 540-231-9163 or email sgreiner@vt.edu .

Virginia Fall Bred Ewe Sale to be Held December 4

The 2010 Virginia Sheep Producer's Association Fall Bred Ewe Sale will be held Saturday, December 4 at 1:00 PM at the Rockingham County Fairgrounds in Harrisonburg. Yearling ewes and ewe lambs, along with mature ewes will be sold. All yearling and mature ewes will be sold as guaranteed pregnant. Breeds offered will include Suffolk, Hampshire, Dorset, and crossbreds including wether dams. For a sale catalog or more information contact Corey Childs at 540-955-4633.

Flock Management Tips - Fall

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

- Work with veterinarian to perform breeding soundness exams on all rams prior to turn-out.
- Flush ewes with 1 pound of corn or barley per day beginning 14 days prior to the breeding season to enhance lambing rate. Continue flushing 4 weeks into breeding season.
- Trim and check feet.
- Stockpile forages.
- Test hay samples to determine their nutritive value. Assess winter feed supplies and devise plan to secure needed feedstuffs. Work with an Extension agent to determine the supplements that will be required to formulate balanced diets for winter feeding.
- Graze spring-born lambs on available fall pasture and aftermath hay fields.
- Supplement grain on pasture to enhance lamb weight gains.
- Plan marketing strategy for any portion of lamb crop that remains.
- Identify and retain ewe lambs from spring lambing to be used as replacements. Breed so that they will lamb first as yearlings.
- After November 1, place ewes on stockpiled fescue pasture.
- Maximize the utilization of stockpiled forages through strip grazing. Use temporary electric fence to limit the sheep's access to a portion of the stockpiled pasture until fully utilized.