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

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Livestock Update

Beef - Horse - Poultry - Sheep - Swine

May 2011

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

HORSE

SEPTEMBER

15-18 State 4-H Championship Horse & Pony Show. Virginia Horse Center, Lexington. ***Contact***: Celeste Crisman, 540-231-9162, email: ccrisman@vt.edu or Joi Saville, 540-231-2257, email: joi.saville@vt.edu

OCTOBER

8-9 Virginia 4-H State Fair Horse Show. The Meadow Event Park. Doswell.
Contact: Eleszabeth McNeel, email: e7aquila@aol.com

SWINE

JUNE

15 Workshop - Breeding Swine for Small-Scale and Niche-Market Pork Production. Suffolk.
Contact: Mark Estienne, e-mail: mestienn@vt.edu

Implant Calves This Year?

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

In all of cattle management there are few things as easy to administer, consistent in response or as well documented as the use of growth promotant implants. Good studies on implants are easy to do since treated animals and controls can be left together and treated the same. In study after study, results like the Nebraska study below are seen.

Table 1. Performance of steers on grass with difference implants.
Courtesy Nebraska Coop Extension.

Implant	Sex	Days	No.	Start Wt.	ADG	Feed	Gain Over Control
None	Steer	123	70	490	1.89	Native Pasture	-
Synovex-S	Steer	123	70	490	2.29	Native Pasture	49.2
Ralgro	Steer	123	70	490	2.3	Native Pasture	50.4
Revalor-G	Steer	123	70	490	2.32	Native Pasture	52.9

While this study involved stock cattle, gains are typical of what nursing calves in much of Virginia gain. Note that the gains were not too different for each of the implants. The point is that implanted cattle gain more than non-implanted cattle. In this study about 50 pounds.

In today's market extra pounds have a lot of value. Not only are calf prices high but added gain has lots of value as well. Spring slides make the gain of less value but by fall values may be $1 per extra pound gained. In 2011, the above steers might return an extra $50 by being implanted.

So, with so much added value in implants, one would expect that most growing calves would be implanted. In fact, evidence suggests that there are less calves implanted now than in previous years.

Certainly one reason that implant usage is down is the negative press that "hormone use" gets. Much research has assured the safety of implants and, remember, a steer implanted with an estrogen/progesterone product has much lower levels of estrogen than a heifer in heat at slaughter. But with all the talk, natural beef, including organic beef is still less than 5% of total beef sold. Yet thousands of calves go unimplanted with a loss of hundreds of thousands of dollars.

What is the bottom line on implants? If you have a way to market calves to natural program and can get a good enough premium to pay for foregone gains, you should take advantage of that opportunity. In general you must either have a tractor/trailer load of calves to sell, have your own retail beef business or be part of an alliance to take advantage of premiums for non-implanted cattle. There are premiums to be had, but they are not accessible to many of us.

In the absence of having a way to sell calves designated as "natural", the market assumes they are implanted and pays a price commensurate with that. If you are in the beef business to make money, how can you afford to pass up a $2 investment that can return $15 to $50?

Virginia BCIA Central Bull Test Program Summary 2010-11

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

The 53rd year of the Virginia Beef Cattle Improvement Association's state central bull test program proved to be historic, with bull value at all-time program highs. The 2010-11 test and sale year included the development of 300 total bulls, with 253 bulls selling through two sales for a record average price of $2560. This average price exceeds the previous program record of $2506 received in 2004-05, and is last year's average of $2,150.

A bull test program near Culpeper has been operated for 53 consecutive years and is currently conducted at Glenmary Farm, Tom and Kim Nixon owners, of Rapidan. In the fall-born Senior group at Culpeper, 84 bulls were developed and had an ADG of 4.27 and an adjusted yearling weight of 1219. The Southwest Bull Test was in operation for the 32nd year, with development of the bulls provided by Hillwinds Farm, Tim and Cathy Sutphin of Dublin. The bulls evaluated at the Southwest station included 66 fall-born Senior bulls and 103 spring-born Juniors. The Senior bulls recorded a test ADG of 3.74 with an adjusted yearling weight of 1133, while the Junior bulls had a 3.65 ADG and 1184 pound adjusted yearling weight. The 253 bulls evaluated included 174 Angus, 17 Purebred Simmental, 31 Simmental Hybrids, 6 Gelbvieh, 7 Gelbvieh Balancers, 4 Charolais and 14 Polled Hereford.

Two sales were held for eligible bulls. The Culpeper Senior sale was held in mid-December and the Southwest sale at Wytheville in late March. The following table presents sale averages by breed. Of the 172 bulls sold, 136 were purchased by Virginia buyers and 36 (21%) sold out of state to cattlemen in North Carolina, Tennessee, West Virginia, Maryland, Alabama, and New Jersey.

2009-2010 VA BCIA Central Bull Test Station Sale and Breed Averages

	Culpeper Sr.		**SW Virginia**		**TOTAL**	
Angus	43	$2,227	70	$2,671	**113**	**$2,502**
Charolais		------	3	$2,533	**3**	**$2,533**
Gelbvieh	1	$3,100	4	$2,350	**5**	**$2,500**
Gelbvieh Bal.	4	$2,150	3	$4,467	**7**	**$3,143**
P. Hereford		------	10	$2,700	**10**	**$2,700**
Simmental		------	13	$2,623	**13**	**$2,623**
Simm. Hybrid	1	$1,700	20	$2,635	**21**	**$2,590**
2010-11 Totals	**49**	**$2,228**	**123**	**$2,693**	**172**	**$2,560**

Average total test and sale costs for bulls fed and sold during the 2010-11 season was $965 (all-inclusive from delivery through sale), for an average return of $1595 per head after all expenses to the consignor. Partitioning total costs, test costs averaged $516 (126-day feeding period) and post-test/sale costs averaged $449 per head (sale expenses averaged 9.4% of sale price).

A total of 44 breeders participated in the Central Bull Test Station program in 2010-11. There were 36 Virginia breeders, and a total of 8 from the surrounding states of Maryland, North Carolina, Tennessee and West Virginia.

All bulls tested and sold were consigned by breeders who are members of the Virginia Beef Cattle Improvement Association. Virginia BCIA was the first state beef cattle improvement association organized in 1955. For a more detailed summary of this information, or consignment details for the upcoming Virginia BCIA Central Bull Test Station program contact the Virginia BCIA office at (540) 231-9163 or visit http://www.bcia.apsc.vt.edu.

Parasite Management Strategies for Sheep

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

For sheep producers, along with the arrival of spring and much anticipated return to pasture is the realization that parasite season is also upon us. The most significant health issue faced by sheep producers is internal parasites. Throughout the U.S., and especially in the mid Atlantic and southern states, the most important member of this family is *Haemonchus contortus* commonly called the barber pole worm. The barber pole worm is a bloodsucking parasite found in the stomach. Infected sheep become anemic, leading to poor performance and frequently death. Bottle jaw is a classic symptom of H. contortus infection; along with loss of body condition, weakness, and rough appearance.

A significant challenge to current internal parasite control strategies is the resistance of H. contortus to many of the dewormer drugs. Resistance has been brought about by several factors, including improper use of dewormers. Dependence on dewormers as the primary mechanism to control parasites for many years has resulted in prolonged exposure of the parasites to the drugs, and over time the parasites have developed resistance. Overuse and improper use of dewormers also contributes to development of resistance, and over time a high proportion of the drug-susceptible parasites have been killed, leaving a population of parasites which are highly resistant. This extent of resistance can vary substantially from farm to farm. Given the prevalence of drug resistant worms and lack of new products entering the market place, parasite control programs must utilize alternative strategies in combination with dewormers to control parasites. These strategies are important even for flocks which do not have a resistance problem, as they will slow the development of resistance and prolong effective use of dewormers.

The following outlines several factors regarding an integrated approach to parasite control:

Pasture Management and Grazing Strategies

The life cycle of the worm involves the shedding of eggs in the feces of the sheep. Given the right environmental conditions (warm and humid), these eggs hatch and the larvae migrate up the blades of forage and are then ingested by grazing sheep. The majority of the larvae are found in the first 2 inches of forage. Consequently, grazing management strategies which minimize overgrazing and leave a residual amount of forage (>2 in.) are conducive to reducing parasitism. Stocking rates are closely related to these factors, and flocks which have lower stocking densities tend to have lower parasite loads. This is a result of less grazing pressure, and the dilution effect of having fecal eggs and resulting larvae spread out over a larger land area.

The use of clean pastures has long been a strategy to control parasites. A clean pasture is one that is not contaminated with parasite larvae. This may be a pasture that has been cut for hay, grazed by another species (cattle or horses), or rested. Research indicates that the rest period needs to be at least 3 months and 6-12 months in some cases. Most farms lack the acreage to rest pastures this amount of time.

Multi-species grazing of sheep with cattle or horses is an additional strategy that can be implemented. Since the parasites that affect these species are different, co-grazing helps to reduce

the population of infective larvae available to the sheep since some of the population is consumed by cattle (and therefore do not propagate).

Proper Use of Dewormers

Dewormer products available for sheep fall into three drug classes:

- Benzimidazoles- includes albendazole (Valbazen) and fenbendazole (Safeguard)
- Macrolides- includes ivermectin (Ivomec) and moxydectin (Cydectin)
- Nicotinics- includes levamisole (Prohibit)

Resistance has been documented in all of the above drug classes, and commonly reported for the white dewormers (albendazole, fenbendazole) and ivomectin. The only definitive way to determine if a flock has resistance is to conduct a fecal egg count reduction test, which will objectively determine the effectiveness of a particular dewormer in the flock. This test can be performed with the assistance of a veterinarian or extension agent.

Ideally, dewormers should be rotated on a yearly basis, using a product from different drug class each grazing season. This is becoming more challenging with the development of resistance.

When administering dewormers, proper estimation of animal weight is necessary to provide an accurate dose. Always dose for the heaviest animal in the group. Deworming sheep on an empty stomach (withhold feed or pasture 24 hours prior to treatment- do not withhold water) may assist in the effectiveness of the deworming.

Strategic and Selective Deworming

To effectively control parasites we have evolved our approach from deworming all animals at regular intervals, to a strategic approach in which we deworm less frequently and concentrate on high-risk animals. The most recent approach includes strategic deworming, which involves evaluating and treating individual animals based on their parasite load or level of infection.

As compared to ewes, lambs are at much higher risk of parasitism as a result of less immunity. The previously mentioned grazing strategies are important particularly with grazing ewes nursing lambs. Stocking rate and forage management in conjunction with well-timed dewormings should be utilized for this production group. Lambs will exhibit the effects of parasitism before ewes, so monitoring of grazing lambs should guide treatment protocols. Weaning and grazing lambs separate from mature sheep assists in parasite management for both groups. When separated, lambs should graze “cleaner” pastures with more forage availability.

It has been demonstrated that within a flock, there is a relatively small percentage of the sheep which shed the majority of the worm eggs. Methods which identify these problem animals and eliminate them from the flock assist in controlling parasites and reducing resistance. Animals which are chronically wormy are good candidates to cull.

An important step in controlling the development of resistance is to reduce the number of deworming treatments. By reducing the number of treatments, the goal is to reduce the number of worms that are exposed to a drug and thereby become resistant. The FAMACHA system has been developed for this purpose, and utilizes color of the eye membranes to assess anemia (related to

parasite load), and allows for treatment decisions to be made on an individual animal basis. To implement FAMACHA, producers need to attend an educational session to obtain training and the eye color chart used as the decision-making tool. Contact your local extension agent for details regarding training.

FAMACHA also provides a mechanism for identifying and selecting both parasite resistant and highly susceptible sheep. Since each animal is scored individually, keeping records over time will assist producers in identifying the genetics in their flock which are problematic and/or most adaptable to their parasite management program.

Summary

Managing parasites is essential to sheep enterprise profitability. A number of strategies are available which reduce the dependence on dewormers, and implementation of these strategies is necessary to address drug resistance which has become widespread in recent years. Each flock will be unique in the techniques which equate to a successful parasite management program. Forage and grazing management and prudent use of dewormers need to be matched to the production system and resources of an individual farm. Stocking rate, forage quantity and quality, grazing practices, and flock genetics are all contributing factors which will impact a planned parasite control management program.

2011 State Fair of Virginia Youth Market Lamb, Commercial Ewe Lamb, Youth Market Goat and Market Beef Nomination Schedule

Joi Saville
Beef Extension Associate, VA Tech

Locations for identification of lambs, goats, and market beef animals for the 2011 State Fair of Virginia Youth Shows have been set. Nominations will take place at various locations around the state in late June. All youth who plan to exhibit market lambs, commercial ewe lambs, market goats and/or market steers or market heifers at the 2011 State Fair of Virginia are required to bring their animals to one of the following sites for identification:

Date & Time	**Location** (for directions please call site contact person)
Shenandoah Valley - Contact Person: Jason Carter, (540) 245-5750, jhcarter@vt.edu	
Saturday, June 18 9:00 – 11:00 a.m.	Rockingham Livestock Market Harrisonburg, VA
Northern Virginia- Contact Person: Corey Childs, (703) 777-0373, cchilds@vt.edu	
Monday, June 13 (MKT BEEF CALL AHEAD) 6:00 – 7:30 p.m.	Shenandoah County Fairgrounds Woodstock, VA
Monday, June 27 6:00 – 8:00 p.m.	Clarke County Fairgrounds Berryville, VA
Central Virginia- Contact Person: Kaci Daniel, (540) 672-1361, kcoppedg @vt.edu Steve Hopkins, (540) 672-1361, hoppy@vt.edu	
Monday, June 20 (MKT BEEF CALL AHEAD) 9:00 – 10:00 a.m.	Glenmary Farms Rapidan, VA
Southside Virginia- Contact Person: Todd Scott, (434) 332-9538, todds08@vt.edu	
Friday, June 24 (MKT BEEF CALL AHEAD) 9:00 – 11:00 a.m.	Appomattox High School Appomattox, VA
Southwest Virginia- Contact Person: Matthew Miller, (276) 783-5175, mamille6@vt.edu Jason Pratt, (540) 980-7761, cjpratt@vt.edu	
Thursday, June 16 (MKT BEEF CALL AHEAD) 5:00 – 7:00 p.m.	Southwest Virginia 4-H Center Abingdon, VA
Thursday, June 23 6:00 – 7:00 p.m.	Virginia Tech Alphin-Stuart Livestock Arena Blacksburg, VA
Monday, June 27 (LAMBS/GOATS ONLY)	in conjunction with Southwest VA Lamb Symposium New River Valley Fairgrounds, Dublin, VA
Tidewater Region- Contact Person: Cynthia Gregg, (434) 848-2151, clgregg@vt.edu	
Wednesday, June 15 (LAMBS/GOATS ONLY) 4:30 – 6:30 p.m.	Virginia Tech Tidewater Center Research Farm near Holland, VA
Thursday, June 30 4:30 – 6:00 p.m.	Southside Livestock Market Blackstone, VA
Northern Neck Region – Contact Person: Kelly Liddington, (804) 333-3420, klidding@vt.edu	
Tuesday, June 28 *(PLEASE CALL AHEAD)* 10:00 a.m. – 12:00 Noon	Richmond County Extension Office Warsaw, VA

Nomination procedures:

1) Lambs/goats will be ear tagged and weighed, cattle will be ear tagged (weighing is optional for cattle only). Nomination forms will be completed by exhibitors.
2) Exhibitors may take lambs, goats and/or cattle to any nomination location. Exhibitors must take all of their animals of the same species to the same nomination location.
3) A maximum of 12 lambs may be nominated per exhibitor (wethers or ewes, to be shown as either market lambs or commercial ewe lambs- no designation required at time of nomination). A maximum of 8 goats may be nominated per exhibitor (wethers or does, to be shown as market goats). No maximum for number of market steers or market heifers nominated per exhibitor.
4) Lambs, goats and cattle must also be properly entered for the State Fair. Entries are due August 15. State Fair entry and competition guides may be accessed on-line at www.statefair.com. **All State Fair entries must be completed on-line.** Weighing and identification at these locations does not constitute final entry for State Fair.

For further information:

Youth Sheep Show contacts:	Dr. Scott Greiner, Virginia Tech, phone 540-231-9159, e-mail sgreiner@vt.edu Dr. Mark McCann, Virginia Tech, phone 540-231-9153, e-mail mmccnn@vt.edu
Youth Beef Show contact	Paige Johnson, Virginia Tech, phone , e-mail
Youth Goat Show contact	Mike Holland, Youth Goat Superintendent, phone 757-373-3348 (d); 434-348-7891 (e)