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)
366 Litton Reaves
Blacksburg, Virginia 24061
540/231-9159 FAX 540/231-3713
E-mail: sgreiner@vt.edu

Livestock Update

Beef - Horse - Poultry - Sheep - Swine

January 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

BEEF

JANUARY

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

29 Beef Cattle Health Conference. Vet. School. Blacksburg. Contact: Anne Cinsavich, (540) 231-5261, email: aclapsad@vt.edu

FEBRUARY

10-11 VA Beef Industry Convention. Hotel Roanoke. ***Contact***: Bill McKinnon, (540) 992-1009, email: bmckinnon@vacattlemen.org

MARCH

20 VA BCIA SW Bull Test Open House. Dublin. ***Contact***: Scott Greiner, (540) 231-9163, email: sgreiner@vt.edu

26 VA BCIA SW Bull Test & Bred Heifer Sale. Wytheville. ***Contact***: Scott Greiner, (540) 231-9163, email: sgreiner@vt.edu

SHEEP

JANUARY

15 Shepherd's Symposium. Augusta County Government Center. Verona. ***Contact***: Scott Greiner, (540) 231-9163, email: sgreiner@vt.edu

SWINE

JANUARY

28 VA Pork Industry Conference. P.D. Camp Workforce Development Center. Franklin. ***Contact***: Allen Harper, 757-657-6450, Ext. 410, email: alharper@vt.edu

FEBRUARY

27 Youth Swine Day. VA Tech. Blacksburg. ***Contact:*** Dr. Cindy Wood, (540) 231-6937, email: piglady@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

Winter Feeding Tips

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

The first official day of winter has come and gone, but Virginia cow herds received an early dose of cold weather with many areas of the commonwealth reporting a near record cold month of December. As always winter conditions provide challenges for both man and bovine alike. The differences in calving season and climate between the coastal plains and mountains of Virginia provide very different environments through the course of the winter. Paying close attention to the winter conditions can guide the decisions related to the nutritional management and care of the beef herd.

As most cattlemen recognize, cold weather can increase the nutritional requirements of the cow as she increases metabolic and biological functions to maintain body temperature in a cold environment. **Low critical temperature** is the temperature at which the cow starts to use energy to stay warm. It ranges from 5 to 49 degrees Fahrenheit (F). The general rule of thumb is to increase the cow's feed energy intake 1 percent for each degree (F) below the lower critical temperature. The only adjustment in cow rations necessitated by weather is to increase maintenance energy. Protein, mineral and vitamin requirements are not changed by weather stress.

The critical temperature also takes into consideration the insulating ability of the cattle's hair coat as shown by the change between a wet and dry coat (Table 1). Therefore, a cold rain is more stressful due to the loss of "air insulation" in the coat of cattle that get wet versus those that are out in the snow. The air pockets between hairs are a source of insulation that is lost when hair is matted down in a cold rain. The result is that the Dry Winter Coat goes from having a critical temperature of 32 degrees F to about 59-60 degrees F of a Summer Coat.

Table1. Estimated Lower Critical Temperatures for Beef Cattle*

Coat Description	Critical Temperature
Summer Coat or Wet	60 degrees F
Dry Fall Coat	45 degrees F
Dry Winter Coat	32 degrees F
Dry Heavy Winter Coat	19 degrees F

* Browsen & Ames

Cattle naturally respond to cold weather with an increase in feed intake. However, feed quality many times needs to also be increased. Feeding more of poorly digestible forage will cause an accumulation of relatively indigestible feed components in the rumen due to too little energy for the bacteria to efficiently digest the feed. This will lead to a net decrease in energy intake to the cow. In order to adequately supplement cattle in winter weather, it is necessary to use quality hay and supplement as needed to balance the nutrient content of the hay.

Table 2. Example of Effect of Temperature on Energy Needs

Effective Temperature	Extra TDN Needed	Extra Hay Needed	or Extra Grain Needed
		(lbs./cow/day)	
+50 F	0	0	0
+30 F	0	0	0
+10 F	20%	3.5-4 lbs	2-2.5 lbs
-10 F	40%	7-8 lbs	4-6 lbs.

An easy place for cold stress to adversely impact cow performance is wintering spring calving during extended adverse conditions without altering energy content. Cows can slowly lose body condition and calve thinner. Cows calving in thin body condition can have:

- Lighter birth weight and less vigorous calves
- Reduced quantity and quality of colostrums
- Slower return to estrus post-partum
- Reduced conception rate in a controlled breeding season

Other tips

- Be aware that the critical temperature of fall born calves will be greater than their dams because they will not be generating as much heat from rumen fermentation. Providing access to wind breaks and southern exposed areas can assist in providing some relief.

- Nutrient analysis of stored forages is always the foundation of a winter feeding program that can meet cow nutrient needs and be as economical as possible.

- Although supplying water in cold weather provides its own set of challenges, it is vitally important in maintaining or increasing cattle's dry matter intake. Reduced water intake will quickly result in decreased dry matter intake and subsequent performance.

- When winter temperatures are above freezing, an often overlooked item to consider is mud. It is less clear what effect mud has on a cow's energy requirements, but it is estimated that it can increase the maintenance requirement from 7-30%. Moving feeding areas regularly can reduce the potential for mud and has the added benefit of better spreading nutrients in the pasture area. If cattle have to deal with mud then their ration should also be improved to help avoid the consequences listed above.

- Be sure to offer a free choice mineral that is vitamin fortified. The summer drought has forced many cattlemen to feed low quality or carry over hay in which the vitamin content is nil. Additionally, drought stressed forages and many by-products do not contain adequate levels of vitamins.

Here's hoping that your New Year is off to good start and that spring is not too far away.

Understanding and Utilizing Across Breed EPDs

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

A well-known historical limitation to selection of bulls for use in crossbreeding programs has been the inability to directly compare EPDs of bulls of differing breeds. Such comparison is useful to strategically utilize bulls of different breeds in a complimentary fashion. For several years now, geneticists at the U.S. Meat Animal Research Center in Clay Center, Nebraska have annually calculated and published Across Breed EPD Adjustment Factors to enable producers to "standardize" within-breed EPDs to a common base, and therefore allow for utilization of EPDs across breeds. A condensed version of the 2010 across breed adjustments can be found below. These adjustments are based on comparative breed research conducted at the USMARC. It is important to note that the adjustment factors found in the table ***do not*** represent a direct comparison of breed differences (more on that later).

2010 Adjustment Factors to Add to EPDs of Various Breeds to Estimate Across-Breed EPDs				
Breed	Birth wt.	Weaning wt.	Yearling wt.	Milk
Angus	0.0	0.0	0.0	0.0
Charolais	+9.3	+41.9	+50.8	+3.1
Gelbvieh	+4.3	+5.7	-10.2	+8.3
Hereford	+3.4	+0.5	-15.5	-17.6
Simmental	+5.2	+28.4	+28.3	+11.8

To calculate across breed EPDs, add the adjustment factor found in the table to the within-breed EPD published in the most recent genetic evaluation for the animals of interest. As an example, assume a Simmental bull and a Charolais bull are being compared for use as a terminal sire on mature Angus-based cows. The Simmental bull has a YW EPD of +60 and the Charolais bull has a YW EPD of +30. To fairly compare the YW EPDs of these two bulls of different breeds, the EPDs must first be adjusted to a common base using the across-breed table. Using the table, the Simmental bull would have an across-breed YW EPD of +78.4 (60 + 28.4 = 78.4) and the Charolais bull an across-breed YW EPD of +80.8 (30 + 50.8 = 80.8). Comparison of the calculated across-breed EPDs for these two bulls suggests they would transmit similar genetics for yearling growth as the difference in their across-breed YW EPDs is minimal (+78.3 vs. +80.8- the two bulls are within two pounds of each other for YW EPD).

Across-breed EPDs are most useful in managing uniformity when multiple breeds are rotated in a crossbreeding system to avoid large fluctuations in traits such as birth weight and milk. Uniformity from one generation to the next when using sires of different breeds can be improved by selecting bulls with similar across-breed EPDs. A common challenge to overcome in crossbreeding systems is to avoid large differences in traits such as calving difficulty, cow size, and milk production resulting from use of breeds that are largely divergent for these traits. Across-breed EPDs are a tool to manage these potential differences, while favorably utilizing the basic genetic differences between breeds that exist as well as optimizing heterosis. By using the across breed EPD

adjustment factors it can be determined that an Gelbvieh bull with a Milk EPD of +12 and a Simmental bull with a Milk EPD of +10 are similar to an Angus bull with a Milk EPD of +20.

Bull	Within-Breed EPD	Across Breed EPD Adjustment	Across Breed EPD
Gelbvieh	+12	+8.3	+20.3
Simmental	+10	+11.8	+21.9
Angus	+20	0.0	+20.0

The three different sires of different breeds listed above would be estimated to transmit similar genetic potential for milk production to their daughters since their across breed Milk EPDs are similar.

Without across-breed adjustment factors, EPDs for animals of different breeds cannot be accurately compared. The across-breed adjustment factors take into account breed differences, as well as differences in the established base year (year in which average EPD in breed equals zero) used in the calculation of EPDs for each breed. For these reasons, the adjustment factors themselves are not reflective of breed differences. To reflect breed differences, each individual breed average EPD needs to be adjusted to a common base. The following table does just that- adjusts the breed average EPD for each trait to a common base using the across breed adjustments. Hence, the EPDs in the following table are directly comparable, and reflect genetic merit differences across breeds as they exist today.

Breed Average EPDs Adjusted to a Common Base (Fall 2010)

	Breed Average EPD			
Breed	BW	WW	YW	Milk
Angus	+1.9	+44	+81	+21
Charolais	+10.0	+66	+94	+10
Gelbvieh	+5.6	+47	+64	+25
Hereford	+7.0	+45	+58	+0
Simmental	+6.1	+61	+87	+16

In summary, Across-Breed EPD Adjustments are a tool to manage genetics across breeds. The accuracy of across-breed EPDs is primarily associated with the accuracy of the within-breed EPDs for the individual animals being compared. Using the adjustment to formulate benchmarks and windows of acceptability for sire selection are logical uses. For example, establishing Milk EPD parameters for crossbreeding programs using Angus, Simmental, and/or Gelbvieh. With the across-breed tools, one can establish a range of EPDs within each breed which will contribute similar milk genetics to a breeding program.

Dr. Dan Moser Featured Speaker for VT Beef Webinar January 11

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

Dr. Dan Moser from Kansas State University will be the featured speaker for the second Beef Webinar sponsored by Virginia Cooperative Extension and scheduled for 6:30 p.m., Tuesday, January 11th. Dr. Moser will provide insight as the role and use of genomics in beef cattle selection through the webinar titled "Utilizing DNA for Genetic Improvement of Beef Cattle: Past, Present, and Future." Dr. Moser has been actively involved in research and industry projects related to this topic, including the NCBA Carcass Merit Project. Dan also teaches genetics and animal breeding courses at Kansas State and is active in his family's Hereford and Angus seedstock operation.

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. Webinar information and meeting links are also 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. 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.

A recording of the December Beef Webinar can be accessed through the VT Beef Extension page. In addition to the January meeting, future webinars are scheduled for February and March. If you have questions, please contact Mark McCann at 540-231-9153.

Edgewood Angus Receives Top Honors at 2010 Culpeper Senior Bull Test

Joi Saville
Beef Extension Associate, VA Tech

Edgewood Angus, owned and operated by the Henderson family- Pete, Connie, and Peter Henderson of Williamsburg, VA, was recognized by Virginia BCIA with the 2010 Culpeper Senior Bull Test Breeder Group Award, as well as had High Station Index and High Sale Order Award Winner at the recently held Culpeper Senior Bull Test Sale.

Edgewood Angus consigned 12 Angus bulls to the 2010 VA BCIA Culpeper Senior Bull Test. These late September/early October born bulls posted an average yearling weight of 1312, average ratio of 107 and ADG of 4.82, average ratio of 112 during the 112-day test. Their average station index during the period was 109.

The Lot 45 Angus bull won top honors as the High Station Index Award and High Sale Order Award winner and topped the sale commanding $4100. This Senior Angus bull is an October 2009 son of GAR Yield ALC Big Eye DO9N and had a test YW of 1375, ratio 113, and test ADG of 5.40, ratio 126 and station index of 117, along with +10 CE EPD, +95 YW EPD, RE EPD of +0.53 ratio of 109.

Edgewood Angus consists of a 200-cow registered Angus herd which has been developed since the early 1980s from a commercial herd. Pete and his wife Connie, along with their son Peter and in conjunction with their daughters and Peter's wife, have managed to make Edgewood a family affair. In 2000, the operation expanded from 75 to roughly 450 acres and moved the primary operation from Williamsburg to King William. Since that time, they have all worked very hard on improving pastures, fencing, and cattle management infrastructure.

Edgewood Angus has been consigning bulls to the BCIA test stations for over 14 years. During that time they have developed a strong reputation for quality genetics and have had several bulls top the BCIA tests and sales. Consistent, predictable genetics has been the focus which has been accomplished through the use of proven sires. Customer service is a high priority for Edgewood Angus, and they work diligently to assess the needs of their commercial bull buyers to design genetics that will do the job for them.

Edgewood has been awarded the Bartenslager Award and Premier Angus Breeder Award on two occasions from BCIA in 2007 and 2009. In December, Edgewood hosted their second annual on-farm performance tested Open House bull sale. Select females are offered through consignment sales.

Pete is the past president of BCIA, and is currently the chair of the Culpeper Test and Sale Committee. He is also very active with Virginia Angus and other beef and ag entities.

2010 Culpeper Senior BCIA Bull Sale Results

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

The Virginia Beef Cattle Improvement Association hosted the 53rd Annual Culpeper Senior Bull Sale on Saturday, December 11, 2010 at Culpeper Agricultural Enterprises near Culpeper, VA. Forty-nine fall-born bulls representing the top end of the 84 bulls tested sold for an average price of $2228. The sale included 43 Angus bulls which averaged $2227, 1 SimmAngus bull at $1700, 1 Purebred Gelbvieh bull at $3100 and 4 Gelbvieh Balancer bulls at $2150.

The top indexing and high-selling Angus bull, Lot 45, was consigned by Edgewood Angus of Williamsburg, VA and sold to Quaker Hill Farm of Louisa, VA for $4100. This October 2009 son of GAR Yield ALC Big Eye DO9N had a test YW of 1375, ratio 113, and test ADG ratio 126 along with +10 CE EPD, +95 YW EPD, RE EPD of +0.53 ratio of 109.

The breeder group award was also presented to Edgewood Angus of Williamsburg, VA for their consignment of Angus bulls. In addition to the top selling lot, Lots 38 and 42 commanded an outstanding price at $2900. Both sons of ALC Big Eye DO9N, Lot 38 had test yearling weight ratio of 105 and test ADG ratio 112, along with EPDs of +11 CED, +0.1 BW, and +0.56 RE, along with +33.18 $W, and sold to Marianne Hilldrup of Spotsylvania, VA. Lot 41 sold Moonlite Farms of West End, NC. This high growth bull had an ADG of 5.13 and ratio of 119, in addition to a CED of +8, YW EPD of +100, and $B of +58.13.

The strong Angus offering also included Lot 9, consigned by Soldiers' Hill Farm of Warrenton, VA sold to Samuel S. Reynolds of Chatham, VA for $3100. This high maternal son of SAV Final Answer 0035 and had a CEM EPD of +9, milk EPD of +25,a test ADG ratio of 111, and +31.25 $W. Lot 79, a KCF Bennett Performer son bred by Legacy at Pine Hill Farm of Forest, VA sold to Joe Henshaw of Madison, VA for $3000. This bull scanned with a 16.8 REA, ratio 126 along ADG and YW ratios of 117 and 119. Lucas Farms of Blacksburg sold Lot 69 to L.W. Cole Farm of Chilhowie, VA for $3000. This calving-ease son of KCF Bennett 208 T20 posted CED EPD +9, YW EPD +98, MB EPD +0.57, and +31 $W. Also commanding $3000 was Lot 33 from Quaker Hill Farm which also sold to L.W. Cole Farm. Sired by SS Fast Track M719, this bull posted EPDs of +9, +66, +112, +33, +55 for CED, WW, YW, $W, and $B.

The purebred Gelbvieh bull, Lot 601, was consigned by Little Windy Hills of Max Meadows, VA and sold for $3100 to Maple Springs Farm of Culpeper, VA. This homozygous black, polled bull had WW EPD +49 and YW EPD +87 and was sired by DCSF Post Rock Granite 200P2. Hickory Hill Farm of Blacksburg, VA consigned the Gelbvieh Balancer bulls. Lot 603, a homozygous black, polled son of RTRM Headline sold for $2400 to Reedy Bottom Farm of South Boston, VA. This bull had a test ADG of 3.97, CEM EPD of +104 and test yearling ratio of 105. Another member of the Hickory Hill consignment, Lot 604, commanded $2300 from Double S Farm of Elkton, VA. This black, polled son of TC Aberdeen 759 had milk EPD of +23 and marbling ratio of 122. The SimmAngus bull, Lot 401, was consigned by Silverado Cattle Company of Warrenton, VA and was sold to Glenmary Farm of Rapidan, VA. This black, polled son of 3C Macho M450 BZ posted a WW EPD of +34, FAT EPD of -0.01 and YG EPD of -0.03.

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, VA. The sale was managed by Virginia BCIA and the Virginia Cattlemen's Association, and the auctioneer was Mike Jones.

Virginia-North Carolina Shepherds' Symposium

Augusta County Government Center, Verona, VA
January 15, 2011
Dr. Scott P. Greiner
Extension Animal Scientist, VA Tech

Program Overview:

Friday, January 14

4:00 pm **Virginia Sheep Industry Board Meeting (open to public)**
Augusta County Government Center, Verona

6:00 **Virginia Sheep Producers Association Board Meeting (open to public)**
Augusta County Government Center, Verona

Saturday, January 15- *all activities at Augusta County Government Center*

8:30 am **Registration & Commercial Exhibits**

9:30 **"Implications of the Chesapeake Bay TMDL- What Livestock Producers Need to Know"**
Mr. Dale Gardner, Chesapeake Agricultural Program Coordinator, Water Stewardship Inc.

10:00 **"Managing Parasites- Keys to Success"**
Dr. Anne Zajac, DVM, Virginia-Maryland Regional College of Veterinary Medicine

10:45 **"Experiences With Parasite Control in Sheep and Goats"**
Dr. Will Getz, Extension Specialist, Fort Valley State University

11:30 **Virginia Sheep Producers Association Annual Business Meeting**

12:00 noon **Lunch**
"National Issue Impacting Sheep Producers"
Dr. Will Getz, ASI Executive Board- Region II Director, Georgia

"Impact of Your American Lamb Checkoff"
Mr. Leo Tammi, Director- American Lamb Board, Mt. Sidney, VA

2:00 pm **"Successful Utilization of the New Sheep CIDR"**
Dr. Keith Inskeep, Division of Animal & Veterinary Sciences, West Virginia University

2:00 pm *Concurrent youth session*

2:45 **Economics & Marketing Session**
"Should I Expand? – Key Production and Marketing Factors"
Dr. Scott Greiner, Extension Specialist, Virginia Tech
Mr. Tom Stanley, VCE Farm Business Management Agent, Rockbridge Co.

"Working With Your Local Livestock Market"
Mr. Mike Carpenter, VDACS

"Successful Wool Marketing- Our Story"
Kathy Donovan & Patti Price, Loudoun Valley Sheep Producers Association

Registration Deadline: January 5, 2011

For registration information contact:

Dr. Scott Greiner
Department of Animal & Poultry Sciences (0306)
366 Litton Reaves Hall
Virginia Tech
Blacksburg, VA 24061
Phone: (540) 231-9163 Fax: (540) 231-3713

Sheep Update

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

2010 Virginia Fall Bred Ewe & Doe Sale Results

The 2010 Virginia Sheep Producer's Association Fall Bred Ewe & Doe Sale was held Saturday, December 4 at the Rockingham County Fairgrounds in Harrisonburg. A total of 39 bred ewes sold for a sale record average price of $445, along with 4 meat goat does for an average price of $415. Sale results by breed and age were as follows:

	Ewe Lambs		Yearling Ewes		Mature Ewes		All	
Wether Dams								
Suffolk	2	$442					2	$442
Crossbred	26	$424	7	$537	4	$426	37	$445
All Breeds	28	$242	7	$537	4	$426	39	$445
Boer Goat Does	2	$270			2	$560	4	$415

Just Say No to Feral Pigs in Virginia

Dr. Allen Harper
Extension Animal Scientist – Swine, Tidewater AREC

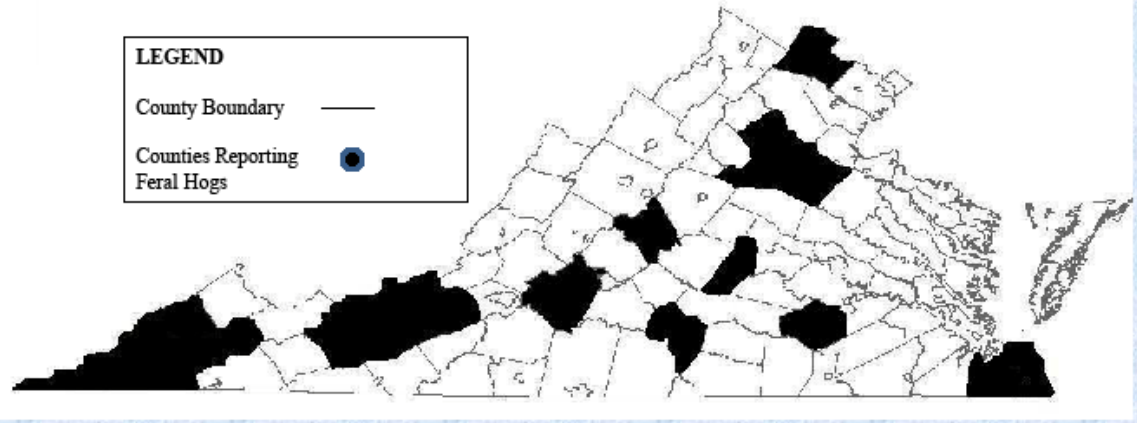
What do *Pueraria montana* (a.k.a. kudzu), *Myocastor coypus* (a.k.a. nutria) and feral versions of *Sus scrofa* (a.k.a. feral hogs) have in common? Although these species are distinctly different, they share a dubious similarity. Each represents a destructive invasive species brought to or expanded in this country under beneficial pretenses. Kudzu, that aggressive vine which overtakes roadsides and smothers native vegetation, hails from East Asia. It was first brought to the U.S. in the late 1800's and later promoted as an erosion control and forage plant during the Great Depression era. The nutria, a semi-aquatic, herbivorous rodent is native to South America. It was brought here in the 1930's to establish nutria fur ranches. The fur farms are now defunct, but expanding populations of nutria are wreaking havoc on native vegetation in the marshlands of Louisiana and Maryland. Feral hogs are free roaming, semi-wild versions of domestic commercial swine or its ancestral cousin, the Eurasian wild boar released for hunting purposes. In many cases they are viewed as an interesting novelty and a game animal for sport hunting. But the spread of feral hogs in Virginia and other states is no amusing matter. They are listed as an *invasive* species by USDA for good reasons. Farmers, rural landowners, and hunters definitely should not condone importation of feral hogs into the Commonwealth and in fact should take active steps to prevent expansion of feral hogs in the state.

How Many and Where?

Unfortunately the U.S. feral hog population is well established and growing. Precise determination of any wildlife population is impossible, but recent estimates indicate approximately 4 million feral hogs exist in the U.S. By comparison the September 2010 USDA inventory of hogs and pigs raised for agricultural purposes (i.e. on hog farms) was 65 million. Texas has the largest population of feral hogs estimated at 1 to 1.5 million followed by Florida with as many as 500,000, Hawaii with as many as 80,000 and California with as many as 70,000 (reviewed by Seward and co-workers, 2004). More recent information indicates that the population is growing and spreading. Feral hogs are now reported in 39 states (Southeastern Cooperative Wildlife Disease Study, 2009; http://www.scwds.org/).

Virginia is one of these 39 states. A well known population of feral hogs has existed in the Back Bay National Wildlife Refuge near Virginia Beach for many years. The relatively isolated and confined location at Back Bay has allowed this modest population to be effectively managed and contained. But feral hogs and hog groups have been increasing in areas more difficult to manage including the western Appalachian, central Piedmont and Eastern regions, with reports of feral hogs in at least 21 Virginia localities (see Figure; Gray and Wilhelm, 2010). The total population is unknown but is certainly less than populations in the lower southeastern states. However, the potential is real for feral hog populations in Virginia to grow by natural range expansion and by illegal or ill advised translocation.

Feral hog (*Sus scrofa*) locations reported to USDA-APHIS-Wildlife Services (Virginia, November 2010)



West	Central	East
Bland	Bedford	Chesapeake
Dickenson	Charlotte	Virginia Beach
Giles	Culpeper	
Lee	Cumberland	
Montgomery	Dinwiddie	
Pulaski	Loudoun	
Russell	Nelson	
Scott	Orange	
Wise	Spotsylvania	
Wythe		

Marcus B. Gray and Eric S. Wilhelm, USDA-APHIS-Wildlife Services

What Is the Problem?

Feral hogs are adaptive and prolific. As opportunistic omnivores they satisfy their nutritional needs from a variety of plant and animal food sources. Early sexual maturity, production of offspring in litters, and absence of natural predators creates the potential for feral hog populations to grow rapidly where habitat conditions are good. These natural advantages are precisely what have allowed feral hogs to become the invasive, problem causing species that they are (reviewed by West and co-authors, 2009).

From an ecological standpoint, feral hogs damage natural land features and native plants. Rooting, feeding, tramping, denuding and soil compaction can all have a disruptive influence in woodlots, streambeds, natural clearings and native plants. Feral hogs compete with native wildlife species for oak and other mast food sources. In addition they may feed on frogs, salamanders and other small animals. When the opportunity is presented, feral hogs will feed on eggs of ground nesting birds such as wild turkey and quail.

Similar damage occurs in agricultural situations. Feral hogs will root, trample and compact pasture, hay and crop fields and will actively feed on the existing crop. One legitimate source has estimated U.S. agricultural and environmental damage losses from feral hogs to be valued at $1.5 billion annually (reviewed by West and co-authors, 2009).

Commercial swine production is important to Virginia's agricultural economy and many other states as well. A major concern with the development of feral pig populations is the fact that they may serve as reservoirs for several economically important swine diseases. Swine brucellosis and pseudorabies are two diseases that have been previously identified in isolated blood sampling of captive feral hogs in Virginia. Both of these diseases have significant potential to cause serious losses on individual hog farms or within a geographic region. Currently Virginia holds brucellosis and pseudorabies free status in its domestic swine herd, and it is important for animal health and economic reasons to maintain this status. Classical swine fever (formerly called hog cholera) and toxoplasmosis are additional diseases for which feral hogs can serve as a reservoir and a vector.

What Should the Strategy Be?

First and foremost it is not wise for landowners or hunters to bring in or translocate feral hogs for hunting or other purposes. Indeed feral or wild hogs are classified as nuisance animals in Virginia and it is illegal to release hogs to the wild. Considering that our state is blessed with many native game species and that feral hogs can be detrimental to native species and their habitat, it is simply bad policy to add feral hogs to the system.

For existing populations, hunting and shooting can reduce numbers in isolated situations. The Virginia Department of Game and Inland Fisheries encourages harvest of as many of these animals as possible. To hunt feral hogs, a hunter must have a hunting license and landowner permission. There is no closed season or daily bag limit on feral hogs, although hunting is not lawful on Sunday. However, past experience and research has shown that in regions of good habitat for feral hogs, traditional hunting alone is unlikely to eliminate them from an area.

In states with severe problems such as Texas and Florida, combinations of traditional hunting, trapping followed by euthanasia and even aerial shooting from helicopters and night shooting have been employed to get populations under control. Hopefully the problem does not reach this magnitude in Virginia, but the potential exists for significant feral hog expansion. Hunters, landowners and farmers who sight feral hogs should alert appropriate local professionals such as agricultural Extension Agents or Game Wardens. Currently the Wildlife Services Division of USDA-Animal and Plant Health Inspection Service based in Moseley, Virginia conducts a blood testing program to monitor the state's feral hog population for swine brucellosis, classical swine fever and pseudorabies. Local officials may report potential new sub-populations to this agency for inclusion in the monitoring program. Ultimately problem cases may require coordinated efforts among landowners, USDA-APHIS Wildlife Services, Virginia Department of Game and Inland Fisheries and the Office of the State Veterinarian.

References

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