

Virginia Cooperative Extension



Farm Business Management Update December 2006 – January 2007

To: Extension Unit Directors, Extension District Directors, Extension Program Directors, and Farm Management Agents, and ANR Specialists

Dear Co-Workers:

Farm Business Management Update is a joint effort of the Agricultural and Applied Economics faculty and the area farm management agents. Subject matter areas include timely information on farm management, marketing, tax management, finance, credit, labor, agricultural law, agri-business, estate planning, 4-H and economic education, natural resources, and CRD. Please use this information in your on-going Extension programs and circulate to all Extension staff. **Farm Business Management Update** is electronically accessible via the Virginia Cooperative Extension World Wide Web site (<http://www.ext.vt.edu/>). To see the articles listed in the reverse chronological order, select "News," then select "Farm Business Management Update" listed under the heading "Periodicals."

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The Management Calendar

**By Gordon Groover (xgrover@vt.edu), Extension Economist, Farm Management,
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Selective information available that might be useful:

- Interested in a variety of information about Virginia agriculture from apples to watermelons? Get a copy of the Virginia Agricultural Statistics Bulletin and Resource Directory Number 81. The publication covers year 2005 and is published annually in September. You can download a copy by going to http://www.nass.usda.gov/Statistics_by_State/Virginia/Publications/Annual_Statistical_Bulletin/bulletin2005.pdf. A hard copy can be obtained by contacting Virginia Agricultural Statistics Service (VASS) via telephone (804) 771-2493 or e-mail nass-va@nass.usda.gov.
- Interested in understanding the terms used in marketing or AKA marketing jargon? Take a look at two articles from Don Hofstrand, Co-Director, Ag Marketing Resource Center, Iowa State University Extension titled “Product Marketing Terms,” published in the December 2006 Ag Decision Maker at <http://www.extension.iastate.edu/agdm/> and “Specialty Grain Terms” at <http://www.extension.iastate.edu/agdm/crops/html/a3-50.html>.
- Thinking about computerizing your farm records and you want to start simple? Consider using Quicken® Home and Business software. Quicken is reasonably priced, very flexible, and can be adapted to most farm cash record keeping systems. Step-by-step instructions on getting started with Quicken are variable from Dr. Damona Doye at Okalahoma State University. She maintains instruction for Quicken 2003 to 2007 at her web site. <http://agecon.okstate.edu/quicken/Instructions.htm>
- If you want to continue with your hand kept farm records, it is time to order a copy of the Virginia Cooperative Extension “Farm Record Book: Expenses and Receipts” (Publication 446-017). This 120-page record book provides an organized way of keeping track of annual financial, labor, personnel, and production related records. It provides forms for many categories of expenses, receipts, labor, and financial summaries to meet the needs of most agriculturally related businesses using cash accounting methods. Column headings are included for major items with some columns remaining blank for your own headings. Forms are arranged to facilitate transferring totals to income tax forms (Schedule F, tax depreciation, and Form 4797) and to help complete end-of-the-year analysis. Virginia Cooperative Extension “Farm Record Book: Expenses and Receipts” is available from Virginia Cooperative Extension for \$12.00. Call your local extension office and request they order VCE Publication 446-016 or contact me at (540) 231-5850.

Farm business managers should consider putting the following activities on their management calendar for December-January.

- Before the end of the year (calendar tax year filers) follow up on end-of-year tax management strategies recommended by tax advisor. Additional information can be found in IRS publication 225 Farmer’s Tax Guide at <http://www.irs.gov/pub/irs->

[pdf/p225.pdf](#). Hardcopies of Farmer's Tax Guide can be obtained from your local extension office or many of your public libraries.

- Begin closing out the farm books by collecting information for the farm net worth statement. Around the first of the year when you need to walk off all that holiday food, take a notepad or try out the new digital video camera and walk around the farm. Record the number and approximate value of all the farm assets (cattle, tractors, machinery, buildings, inventories of grains and feedstuffs, chemicals, etc.) that can be organized on the asset side of the balance sheet. Be sure to save the notes recording or, better yet, place the notes recording in a safe location (safety deposit box or fireproof box) for possible insurance claims. Review your end-of-year bank statements or contact your lender for current listings for all personal and business liabilities.
- If you are using cash accounting methods for tax purposes (computerized business records or hand kept), you need to make sure your actual records match the deposit and check dates for all claimed income and expenses. A quick check of the records will help address any problems that might arise at tax time.
- Plan to get all tax records summarized and to your tax advisor by February 1, 2006, and check with your Virginia Cooperative Extension's farm business management agent on farm-related changes in state and federal taxes. A listing of Virginia tax credits can be found at the following site: <http://www.tax.virginia.gov/site.cfm?alias=TaxCredit>. Make sure that your tax advisor is aware of these credits.
- Using 2006 financial and production records, develop projected budgets, cash flow, and income statements for 2006. If you are using Quicken or QuickBooks use the automated feature to create a budget based on last year as a starting place to create a detailed budget to reflect your expected costs and returns for 2007. If you are using the Virginia Cooperative Extension "Farm Record Book: Expenses and Receipts," the back pages provide the forms to summarize all your financial data.
- Depending on the type of farm, begin working on a marketing plan for 2007 by collecting information on prices and world market situations. Be sure to check with your local Farm Service Agency for changes in government programs and signup deadlines. Contact information for your local FSA office can be found at <http://offices.sc.egov.usda.gov/locator/app?state=us&agency=fsa>
- Keep up-to-date on release of economic, crop conditions and estimates, world agricultural situation and outlook, and many other USDA reports by looking at the USDA report calendar at <http://www.usda.gov/news/releases/rptcal/calindex.htm>.
- Check on crop insurance policies by visiting the Risk Management Agency website at <http://www.rma.usda.gov/> to find an agent and view the multitude of policies that are available in your area.
- Close out and summarize livestock and/or crop records for 2006, noting problems that must be addressed when making cropping, feeding, and breeding decisions during 2007. Compare 2006 records to previous years looking for strengths and weakness.
- Review 2006's crop, hay, and livestock records for labor problems, bottlenecks, and down times. Include all employees in spotting and planning to correct labor bottlenecks. Draw up a labor flow chart listing estimated times and identify employees who will be responsible for major tasks.
- Schedule regular meeting with all workers and family members to discuss work activities as you gear up for the spring push. Make sure all workers feel free to suggest ways to

improve efficiency. Think about creating an employee handbook for important information on pesticide safety, farm bio-security, and safe operations of machinery and equipment.

- Bio-security has gotten lots of press. Do you have a plan? Do all your employees know and understand the plan and have you trained them? The best bio-security plan means nothing if no one understands how you plan to implement it. Bio-security is just one example. Oh, by the way, do you have an employee handbook, training program, and job descriptions? Consider the risk of employee mistakes with pesticides, employee negligence with trucks, machinery, and equipment, and so on. All these risks related to employees should be spelled out in a handbook and reviewed regularly with all employees and family members. Demonstrating that you have implemented a program to train employees could reduce problems and lessen the payouts in a law suit.

Happy Holidays to all!

2006 Horse Boarding Guide for the Northern Shenandoah Valley

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The ownership of pleasure horses by the non-farm population has exploded in the northern Shenandoah Valley during the past few years. This remarkable growth has fueled an increase in the components of the horse industry that service the private horse owner. One such important component is the boarding facility that caters to horse owners who have inadequate acreage and facilities to maintain animals on their own property. Horse owners choose a stable to board their horse for many reasons. Often it has to do with management and the intrapersonal relationships between the horse owner and the people the horse owner most often comes in contact with.

During the summer of 2006, Extension distributed a survey to the horse industry in the northern Shenandoah Valley to develop a portrait of the area's boarding industry. The objectives of this survey were to describe horse boarding facilities in the Northern Shenandoah Valley and to determine the relative cost of amenities provided at the facilities. The survey contained over 50 questions related to the types of services provided, cost of those services, and the overall management of the facilities. Since many variations of boarding facilities exist, not all situations fit easily into the survey format. Participants were asked to select the answer that best suited their operation and to provide comments explaining their answers if necessary. In situations where the total is greater than 100% stables responded to the question at multiple levels.

Forty facilities responded to the survey. The majority of them were in the Clark-Frederick area. The results indicate that most facilities are operated by owner-managers who take a very active part in the day-to-day management, even when they have employees. The types of boarding facilities ranged from pasture to stall boarding with varying degrees of turnout. A single operation often includes more than one variation of boarding. Also, the results show the availability of a wide array of amenities, including outdoor and indoor arenas, providing exercise

for horses, providing a winter blanketing service and providing tack storage ranging from individual tack lockers to heated and air conditioned tack rooms. The boarding facilities that offered more amenities generally charged more for their boarding services. A summary of the results of the survey are provided below.

People interested in operating a boarding facility to service the growing pleasure horse industry can use the 2006 Horse Boarding Survey Results for the Northern Shenandoah Valley to develop a successful business plan and to decide what type of facility to build. Horse owners can use the results as a guide to the breadth of services available within the horse boarding industry and the rates that pleasure horse owners are willing to pay for these services.

Summary: Results of the 2006 Horse Boarding Survey for the Shenandoah Valley

1. Boarding rates (Table 1): The types of horse boarding facilities generally range from pasture boarding to stall boarding with varying degrees of turnout. Most of the pasture boarding facilities could accommodate a greater number of horses (generally 10 to 20) at their facilities. The stall boarding facilities in the area typically accommodate fewer horses: on average, less than 10.

Table 1. Monthly Boarding Rate Per-Horse for Various Boarding Schemes

Boarding Scheme	Response Rate %	Average Number of Horses Boarded	Average Rate per-month per-horse \$	Range \$	
				Min	Max
Pasture	31.3	21	163	25	500
Pasture with Run-in	62.5	16	216	20	500
Pasture with Occasional Stall	46.9	9	257	20	556
Stall (Total Confinement)	28.1	6	398	25	900
Stall with Individual Paddock	37.5	6	379	25	800
Stall with Multi-horse Paddock	53.1	10	313	25	550

2. Level of service: When asked about the level of service provided, 65.6% reported offering full service: all feeding, turnout, and stall cleaning is done by the barn management. Forty-one percent felt they provided minimal service. Several facilities indicated they offer the horse owner the choice of full or minimal service based on the fee structure.

3. Style of riding (Table 2): Forty-five percent stated they cater to a specific style, while 54.8% indicated they have no preference to the riding style of their boarders.

Table 2. Frequency of Various Styles Represented at Facilities

Western	16.1%
English	42.0%
Dressage	22.6%
Trail/Recreational	29.0%
All types	48.4%

4. Customer age: Fifty-eight percent of the facilities cater to customers of all ages, while 25.8% indicate they deal with adults only, and 23.4% deal with children only. The number of customers at boarding stables ranges from as few as one to as many as 20 for the larger operations.

5. Watering systems: While pastured, horses have access to water by trough (65.6%), automatic watering systems (50.0%) and natural springs/creeks 34.4% of the time. Eighty-eight percent of responding boarding stables indicated they watered horses in the stall by bucket.

6. Fencing: The most popular fencing material for the confinement area is board fence (68.8%), followed by electric (25.0%), woven wire (21.9%), high tensile (21.9%), rubber/plastic (9.4%), and polywire (6.3%). While some differences are indicated between confinement areas and the entire farm, for the entire farm, board fence is still used the most, 50.0%, followed by woven wire at 34.9%.

7. Horse gender: Most facilities (80.7%) do not allow stallions at their facilities. However, 19.4% allow stallions, and 37.7% stated they have stallions on the premises, which probably means that the facility is also operating a breeding operation along with the boarding stable. Fifty-eight percent of the facilities separate mares from geldings in the pasture.

8. Stalls: The size of stalls is all over the spectrum, but the typical stall is 12 foot by 12 foot. Stalls are most frequently cleaned by the barn management (72.4%) while 34.5% of the facilities have the horse owners clean their horses' stalls. The majority of the surveyed facilities clean stalls once a day (64.3%) and use shavings as a bedding material (76.7%). Straw is used as a bedding material at only one-fifth of the stables. Eighty-one percent of the facilities include the bedding in the boarding fee.

9. Amenities: The amenities or "extras" provided by the stable are a major part of the expense of boarding a horse (Table 3). Seventy-seven percent of facilities use the "first come, first serve" method, with the remaining 23.0% requiring that amenities use be scheduled.

Table 3. Amenities Available

Type of Facility	Frequency
Outdoor Arena	64.5%
Covered Arena	3.2%
Indoor Arena	25.8%
Outdoor Wash Rack	41.9%
Indoor Wash Rack	18.4%
Jumps	45.2%
Trails	73.3%

10. Tack storage: Almost all of the stables have some type of tack storage for clientele. Storage rooms range from cubicles to individual tack lockers to heated and air conditioned tack rooms with washing machines and bathrooms.

11. Other services: Other amenities/services that are often provided are riding lessons (54.8%), horse training (54.8%), horse exercise (45.2%), blanketing for the boarded horses in the winter (67.7%), and horse transportation on a fee based system to events (51.6%). Forty-five percent of the facilities in the survey indicated that they sponsor horse-related events on site including trail rides, shows, clinics, and seminars.

12. Monitoring: The frequency and regularity of monitoring the horse is important to boarders. This survey indicated that the facility owner is the primary on-site manager, checking on the horses 87.1% of the time. Stable employees check on horses 38.7% of the time, and a designated barn manager will regularly monitor the horses one-third of the time. Horses are generally checked twice a day (53.3%) by barn management, but in one-fourth of the situations they are checked four times a day.

13. Operating hours: In most boarding situations clientele are permitted to come and go as they please; however, one-third of the stables state they have hours of operation, closing generally after 9:00 p.m. or 10:00 p.m.

14. Feeding management: Eighty percent of the areas boarding facilities include the cost of feed in the boarding fee. Most facilities provide grain (86.7%), hay (90.3%) and, if needed, supplements (50.0%). A variety of hay types are being fed; mixed hay (63.3%), timothy (63.3%), orchardgrass (60.0%), and alfalfa (30.0%). Horses are generally fed twice a day (86.7%) according to the animal's individual needs as determined by facility management.

15. Health management: Horse health is a major concern of the horse owner and the facility owner/manager does not want to introduce disease to the stable. Sixty-five percent of the facilities have a designated quarantine area; however, only 54.8% of the facilities routinely quarantine new arrivals. Stables have become proactive in the prevention of disease. Ninety-seven percent of the horse boarding facilities require horse owners to provide proof of a negative Coggin's Test. Other frequently required proof of immunizations are shown in Table 4.

Table 4. Immunizations Required for Boarding

Items	Required by the Facility
Influenza	90.3%
Rabies	87.1%
Tetanus	87.1%
Rhino	83.9%
West Nile	77.4%
EEE/WEE/VEE	77.4%
Strangles	58.1%
Potomac Horse Fever (PHF)	54.8%
Botulism	32.3%

Seventy-four percent of the facilities include deworming as a service; however, many itemize it as an additional cost (80.0%). Deworming regimens vary from using a daily deworming product to rotating paste deworming products multiple times per year.

16. Veterinarian services: Part of the health management system employed by boarding facilities is the method in which veterinarian services are provided for both routine and emergency care. In many instances, facility management and horse owners have agreed to a method for scheduling routine checkups and handling emergency care. This arrangement becomes particularly important in emergency care situations when the owner is not available and time is of utmost importance. Some facilities utilize a care, custody, and control agreement allowing the facility management to make decisions in the owner's absence.

17. Farrier services: The majority of the facilities (67.7%) have a farrier on retainer who provides services for all the boarded horses. Twenty-six percent of these facilities charge a holding fee when the farrier is servicing the horse if the horse owner is not present. Horse owners often (61.3% of the time) will make arrangements with the farrier for scheduling and payment of services for their horse on an as-needed basis.

18. Insurance: Though boarding stables are for-profit enterprises mixing people and large animals of varying temperaments that often represents a sizeable investment for the owner, only 83.9% of the facilities carry liability insurance on their operation. A large percentage, almost 13% of facilities, choose to accept the risk that nothing adverse will occur at their facility.

To Hay or Not to Hay: Hay Cost vs. Grazing Cost

**By Gordon Groover (xgrover@vt.edu), Extension Economist, Farm Management,
Department of Agricultural and Applied Economics, Virginia Tech**

“To Hay or Not to Hay” all Shakespearian puns aside, is a good question and centers clearly on long-term versus short-term costs. More specifically, how much capital should you invest in fence and water systems and how much in machinery and equipment? The answer is a very clear, “It depends!” Don’t you just hate economists who will not give a definite answer to a definite question, and the answer will hold for the next 20 years? Sorry, you will all need to push a pencil or start up the computer to solve this problem so that you can make an informed decision. Two situations will help shed some light on the question of whether – “To Hay or Not to Hay.”

Situation 1: 100-acre farm no cost-share

Consider a farm with 100 acres of pasture. To keep the geometry simple, assume it is a rectangle (825 feet by 1,704 feet, Figure 1). All fences are powered by a high capacity electric fence energizer. The perimeter is fenced with four strands of high tensile wire (4 HT) and all cross fences are two strands of high tensile wire (2 HT). The farm is assumed to have a water source, so regardless of the water system, the only difference is the cost of getting water to each field or paddock. Figure 1 illustrates the two (1 and 2) alternative farm setups for the 100 acres. Farm 1 is a standard farm, divided into two 50-acre fields with one water source and one field set aside

for a spring hay crop. The whole farm is then grazed for the remainder of the year, and hay is fed for about 135¹ days. Farm 2 is set up to provide for rotational grazing and stockpiling fescue for winter grazing. The 100 acres is divided into six paddocks of approximately 17 acres with access to water in all paddocks. Table 1 lists the base assumptions used to develop the annual costs for Farms 1 and 2. The comparison between Farms 1 and 2 is based on costs to get the farm up and running. There are additional expenses or investments that are not considered, e.g. cattle working facilities, trucks, labor, etc. since these costs will be similar across farm types, they are not included. The three major items for comparison are 1) capital investments in fence and water systems, 2) capital investments in machinery and equipment or rolling stock, and 3) pasture and hay costs. Farm 1 (\$31,013) requires \$16,147 less investment in fence and water than Farm 2 (\$47,160) (Table 1: Line A). This additional investment is required to subdivide pastures and provide water to facilitate rotational grazing. Machinery and equipment costs quickly add up when a full complement of hay making equipment is purchased. Note: The comparison uses new costs, maybe not always realistic, yet new costs are much more reliable for comparison.

To make hay and maintain pastures, Farm 1 requires an initial investment of \$101,973² as compared to Farm 2 with investments of \$37,250 (Table 1: Line B). Not making the investment in machinery of \$64,723 requires that Farm 2 purchase all hay fed; thus, trading the much larger annual fixed costs to make hay for the uncertainty of buying hay in the market place. Abandoning making hay and the additional investment in fencing does allow Farm 2 to stockpile fescue to reduce the purchased hay expense. The 40 cows, bulls, and replacement heifers are estimated to need winter feed for 135¹ days or about 94 tons of grass hay (Table 1, Forage costs). Farm 1 will harvest all of that hay from the farm. Farm 2 will provide slightly over half from stockpiled fescue. The remaining 44 tons will be purchased for \$60 per ton. The difference in out-of-pocket forage costs between the two farms is minimal, approximately \$250 per cow. Thus, looking at the annual out-of-pocket costs (Table 1, Lines C & D) few farmers see the need to adopt rotational grazing, stockpiling, or go the no-hay option. However, the full scope becomes clearer when you consider all costs on an annual basis. Total annual costs are summed on Lines F and G of Table 1 and Farm 1 will incur \$5,035 more costs per year than Farm 2. On a per cow basis (Table 1, Line H), the owner of Farm 2 saves \$126 per cow per year relative the more capital intensive Farm 1.

The final issue is to ask: What has been forgotten in this analysis? First, most forage agronomists and practicing rotational grazers would say that adopting rotational grazing and not making hay would lead to more total forage production, resulting in more total weight gain or a higher carrying capacity (more and larger calves) for Farm 2. The end result would be a more efficient farm or higher total returns from the same set of resources. Second, purchasing hay can be risky and the manager of Farm 2 must rely on the market to obtain winter hay and/or summer hay during times of drought. Looking at the breakeven price of hay (where the price of hay equals the net difference between Farm 1 and 2 and all other costs held constant) can increase to

¹ Virginia Cooperative Extension Crop and Livestock Budgets.

<http://www.ext.vt.edu/cgi-bin/WebObjects/Docs.woa/wa/getcat?cat=ir-fbmm-bu>

² Note that farmers do not buy all their machinery and equipment in one year, but purchase and/or replace it over time. However, the annual opportunity costs of owning a complement of machinery will be similar to the costs in this analysis.

\$115 per ton before the advantage for Farm 2 goes to zero. However, every year that hay costs less than \$115 per ton Farm 2 with out equipment is better off than Farm 1 with equipment. Third, rotational grazing may required more time for grazing and grazing stockpiled fescue, i.e., moving fence and pasture walks, and procuring a hay supply. However, considerable time is required to make hay, feed hay, and maintaining equipment. Overall, it is close to a wash on total time between the two systems. Fourth, research shows that stockpiled fescue often is of higher nutritional value than your average hay; thus, gains and utilization may be higher than with traditional winter feeding systems. Fifth, used equipment will further reduce total costs; however, Farm 2 can make efficient use of older equipment since it will be used only for routine pasture maintenance and moving round bales. Overall, in my opinion, smaller farms (less than 150 brood cows) making efficient use of grazing while not owning hay equipment will reduce a farm's total costs.

Table 1. Costs comparison – grazing+stockpiling+purchased hay VS. grazing+haying		
Items	Farm 1 (hay)	Farm 2 (no hay)
Acres	100	100
Number of cows	40	40
Number of field/paddocks	2	6
Average acreage	50	16.7
Capital investment in fence and water		
Water lines to pastures \$ (feet)	\$1,193 (426)	\$5,964 (2,130)
Permanent water \$ (#)	\$1,500 (1)	\$3,000 (2)
Round bale feeders \$ (#)	\$750 (3)	\$1,500 (6)
11,929 ft 4 strand HT fence \$	\$25,766	\$25,766
2 strand HT fence \$ (feet)	\$1,304 (852)	\$10,429 (6,816)
Electric fence energizer \$	\$500	\$500
A. Subtotal capital investment	\$31,013	\$47,160
Machinery & equipment investments		
40-hp tractor and front-end loader	\$28,000	\$28,000
2-bale spears	\$550	\$550
Rotary mower	\$3,600	\$3,600
Utility wagon/trailers	\$5,100	\$5,100
60-hp tractor	\$35,000	\$0
Mower-cond 9'	\$11,900	\$0
Hay rake 9'	\$3,890	\$0
Round baler 800#	\$13,933	\$0
B. Subtotal machinery & equipment investment	\$101,973	\$37,250
Forage costs		
Pasture costs \$72/acre	\$7,200	\$7,200
Winter hay for 135 days - 94 tons	94	94
Stockpiled tons available - 50 tons	-	50
Additional hay needed	94	44
Hay purchased - \$60 per ton	-	\$2,640
Nitrogen - stockpiling	-	\$508
Roll polywire 600ft/roll	-	\$160
20 fiberglass posts (1 every 25')	-	\$32
Additional fertilizer for hay crop	\$1,166	\$0
Hay raised - spring cut hay \$16.00/ton	\$1,504	\$0
C. Subtotal forage costs	\$9,870	\$10,540
D. Subtotal forage costs per cow	\$247	\$268
E. Difference	\$21	
Prorated fixed costs capital investment	\$2,441	\$3,712
Prorated fixed costs machinery	\$11,017	\$4,025
F. Total Annual expense	\$23,328	\$18,277
G. Difference total expense	\$5,052	
Per cow	\$583	\$457
H. Difference per cow	\$126	

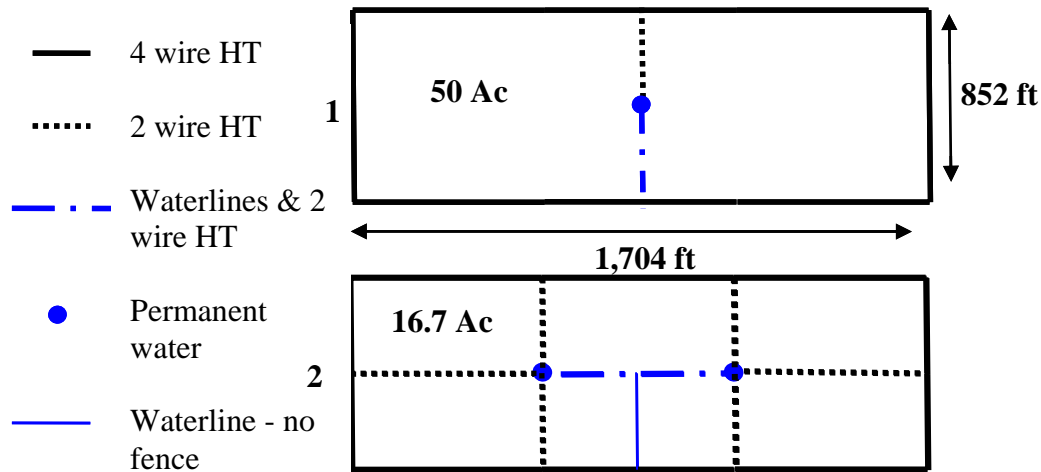


Figure 1. Schematic of alternative grazing systems for 100 acres of pasture without cost share

Situation 2: 100-acre farm with cost-share

Now consider the financial consequences of conservation or environmental programs (cost-share via state and/or federal programs) on the question, “To Hay or Not to Hay?” The example 100 acre farm is detailed in Figure 2. The 2 farms (Farms 3 and 4) in Situation 2 are the same size with similar characteristics. Important differences are as follows:

- Farms 3 and 4 now have a stream to provide eligibility for cost-share programs.
- Farm 3 waters all cattle from the stream and a spring cut of hay is made from the left 50 acre field (Figure 2). After hay is harvested cattle graze all 100 acres.
- Farm 3 is assumed to be ineligible for any cost-share.
- For Farm 4 to be eligible for cost-share, the farm must have a perimeter fence. Note perimeter fencing (in this case 4-wire HT) is not eligible for cost-share and must be installed first.
- Stream fencing for Farm 4 is 5-wire HT. To be eligible for cost-share all electrified fence used to fence a stream must be 5-wire or greater.
- Stream fencing for Farm 4 must extend 35 feet on each side of the stream, resulting in a net loss of approximately 1.4 acres of pasture land. Reduces pasture costs over farm 3.
- Farm 4 must install a stream crossing and to eligibility for cost-share.
- Farm 4 must dig, case, and connect a well to 3 permanent waters. The water system is reconfigured to add a third water trough for cattle grazing the 2 rightmost pastures.
- For Farm 4, with the exception of the 4-wire HT perimeter fence, all fence, water systems (well), and stream crossing are eligible for cost-share at a 75% rate.

Table 2 details all these changes and cost between Farm 3 and 4. Like Situation 1, total annual costs for Farm 4 are \$5,985 less than Farm 3 (Table 2, Line G) or \$150 less per head (Table 2 Line G).

The advantage again goes to the no hay option (Farm 4). As in situation 1, you need to ask the question of what has been forgotten? First, pasture utilization for Farm 3 maybe less efficient given that cattle must travel to the stream from a distance of more than 1,000 feet, so Farm 4 will in all likelihood be more efficient and more profitable. Second, getting the cattle out of the stream may make the cattle healthier and reduce vet and medicine costs. Third, environmental costs to society maybe less; less pollution in the stream, less erosion, and higher water quality.

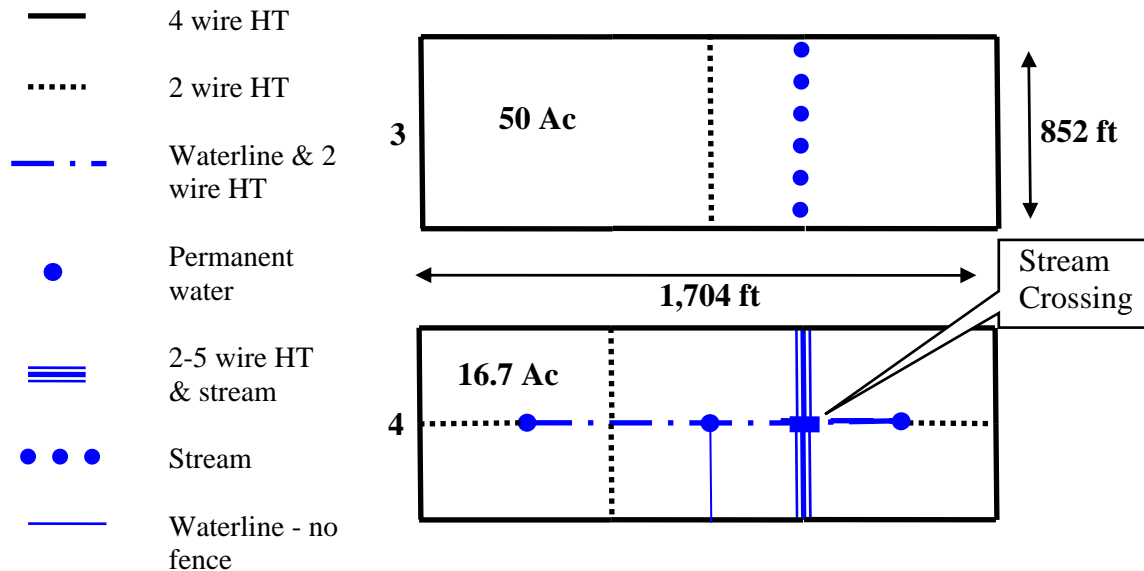


Figure 2. Schematic of alternative grazing systems for 100 acres of pasture with 75% cost share

Table 2. Costs comparison – grazing+stockpiling+purchased hay VS. grazing+haying with 75% cost-share		
Items	Farm 3 (hay)	Farm 4 (no hay)
Acres	100	98.6
Number of cows	40	40
Number of field/paddocks	2	6
Average acreage	50	16.4
Capital investment in fence and water		
300 ft well & casing	\$0	\$5,100
2,698 ft of water lines to pastures \$	\$0	\$7,555
3 Permanent water \$	\$0	\$4,500
Round bale feeders \$ (#)	\$750 (3)	\$1,500 (6)
5 strand HT fence – 1,704 ft - stream fence \$	\$0	\$4,294
4 strand HT fence 11,929 ft \$	\$25,766	\$25,766
2 strand HT fence \$ (feet)	\$1,304 (852)	\$9,126 (5,964)
Stream crossing	\$0	\$2,000
Electric fence energizer \$	\$500	\$500
Cost-share 75%	\$0	-\$24,433
A. Subtotal capital investment	\$28,320	\$35,910

Table 2. Costs comparison – grazing+stockpiling+purchased hay VS. grazing+haying with 75% cost-share		
Items	Farm 3 (hay)	Farm 4 (no hay)
Machinery & equipment investments		
40-hp tractor and front-end loader	\$28,000	\$28,000
2-bale spears	\$550	\$550
Rotary mower	\$3,600	\$3,600
Utility wagon/trailers	\$5,100	\$5,100
60-hp tractor	\$35,000	\$0
Mower-cond 9'	\$11,900	\$0
Hay rake 9'	\$3,890	\$0
Round baler 800#	\$13,933	\$0
B. Subtotal machinery & equipment investment	\$101,973	\$37,250
Forage costs		
Pasture costs \$72/acre	\$7,200	\$7,063
Winter hay for 135 days - 94 tons	94	94
Stockpiled tons available - 50 tons	-	50
Additional hay needed	94	44
Hay purchased - \$60 per ton	-	\$2,640
Nitrogen - stockpiling	-	\$500
Roll polywire 600ft/roll	-	\$160
20 fiberglass posts (1 every 25')	-	\$32
Additional fertilizer for hay crop	\$1,166	\$0
Hay raised - spring cut hay \$16.00/ton	\$1,504	\$0
C. Subtotal forage costs	\$9,870	\$10,395
D. Subtotal forage costs per cow	\$247	\$260
E. Difference	\$13	
Prorated fixed costs capital investment	\$2,229	\$4,750
Prorated fixed costs machinery	\$11,017	\$4,025
Less prorated 75% cost-share	\$0	-1,997
F. Total Annual Expense	\$23,116	\$17,172
G. Difference total annual expense	\$5,985	
Per cow	\$578	\$429
H. Difference per cow	\$149	

Summary

Regardless of cost-share, rotational grazing coupled with stockpiled fescues and purchased hay (no hay equipment) leads to lower total costs! LOWER costs leads directly to HIGHER returns.

Reference: Faulkner, David (NRCS economist). Various estimates of land-based practices for FY 2007, data available from the author.

Virginia Use-Values Increase Slightly

By Lex Bruce (fbruce@vt.edu), Project Associate, Department of Agricultural and Applied Economics, Virginia Tech

From tax year 2006 to 2007, use-values for agricultural and horticultural sectors across the state show an average increase. The State Land Evaluation Advisory Council (SLEAC) reported that the average use-value cropland in Virginia was \$16 per acre more (a 15 percent increase) for no risk Type 3 soil classified land. Of the 95 participating use-value jurisdictions (i.e., counties and cities) within the state, 84% had actual changes in their respective use-value estimates of \$100 or less per acre while just over one-half had actual changes of \$50 or less per acre.

This modest increase in use-value estimates is most often the result of increased returns associated with hay crops. Data used in calculating use-value estimates lags two years behind the current tax year (TY). For example, TY 2007 use-value estimates are based on data from 2005 and earlier. A jurisdiction's annual crop net return would be an average of seven years of annual returns beginning in 1999. An Olympic averaging process is used which moderates major swings from year-to-year in annual net returns by dropping the high and low values and calculating an average of the remaining 5 values. However, even when an Olympic averaging process is employed, major increases and decreases in values can still occur and affect a jurisdiction's net returns. Such was the case during TY 2007 when annual hay net returns showed increases in many jurisdictions for the last several years. While Olympic averaging helps moderate swings in data, the consistency of increased hay prices by Virginia Agricultural Statistics Service (VASS) affected many jurisdictions' overall average net returns and thus their respective use-value estimates.

Perhaps a question to ask regarding the recent use-value increases is, "Will use-values continue to increase in the future?" While Virginia agricultural producers continue to combat increases in production costs (e.g. fuel prices and interest rates), on average use-value estimates in Virginia have been on the increase during recent years. The future is hard to predict, yet as Virginia producers experiment with alternative crops and turn their attention more toward global marketing. Use-values can be expected to reflect that progression.

For more information on Virginia use-values, see <http://usevalue.agecon.vt.edu/>.

Background for Use-Value Taxation

The synopsis of section 58.1 – 3229 of the Code of Virginia declares that “the preservation of real estate for agricultural, horticultural, forest and open space use is in the public interest and ... the classification, special assessment and taxation of such property in a manner that promotes its preservation help foster long term public benefits.” Virginia law allows for eligible land in any of these categories to be taxed based upon the land's value in *use* (use value) as opposed to the land's *market* value. Section 58.1 – 3239 of the Code establishes the State Land Evaluation Advisory Council (SLEAC) and directs it to estimate the use value of eligible land for each jurisdiction participating in the land-use program.

Virginia Agricultural Outlook Meetings

By Denise Mainville (mainvill@vt.edu), Assistant Professor, Agricultural Marketing, Department of Agricultural and Applied Economics, Virginia Tech, and Mike Roberts (mrob@vt.edu), Extension Agent, Farm Business Management, Prince George

Agricultural departments in many land grant institutions throughout the U.S. are much like Virginia Tech in that the numbers of agricultural specialists in the field of agricultural economics have diminished. A series of four outlook meetings is being planned in order to present timely, expert agricultural economic-outlook information to participants so they can make better informed economic decisions.

The meetings are sponsored by a grant from USDA via the Southern Region Risk Management Education Center in Texas. There are several Virginia and regional partners collaborating to make these seminars happen. Some of these are VSU, VDACS, Colonial Farm Credit, and Virginia Farm Bureau. The meetings will target producers, extension educators, and other agricultural influencers such as lenders, input dealers, and processors from Virginia and bordering states. That is the reason for the broad range of meeting locations.

These meetings will utilize interactive, web-based video conferencing technology to bring in experts from around the southeast extension region to make presentations.

Agendas for these meetings are now in the process of being formed. The goal is to make each seminar pertinent and useful to where the meeting is held.

The meetings are being designed with the extension model in mind using a good mix of both on and off-site presenters.

Below are the dates for the upcoming meetings. The idea is to have the meetings run from about 10:00 AM to 2:00 or 2:30 PM. Lunch will be provided. For additional details, contact Mike Roberts at (804) 733-2686 or by email at mrob@vt.edu.

Southeast Virginia: February 21, 2007 – Paul D. Camp Workforce Center – Franklin
Tentative Agenda:

- Corn/soybean/wheat outlook
- Cotton outlook
- Cattle outlook
- Peanut outlook
- Agricultural inputs outlook
- General monetary outlook
- Direct marketing
- Futures and options tools for using what you've learned

Northeast Virginia: February 23, 2007 – Germanna Community Workforce and Technology Center – Fredericksburg

Tentative Agenda:

- Corn/soybean/wheat outlook
- Dairy outlook
- Cattle outlook
- Nursery industry outlook
- Agricultural inputs outlook
- General monetary outlook
- Direct marketing
- Futures and options tools for using what you've learned

Southwest Virginia: February 28, 2007 – Southwest Virginia Higher Education Center – Abingdon

Tentative Agenda:

- Corn/soybean/wheat outlook
- Dairy outlook
- Cattle outlook
- Tobacco outlook
- Nursery or Christmas tree outlook
- Agricultural inputs outlook
- General monetary outlook
- Direct marketing
- Futures and options tools for using what you've learned

Northwest Virginia: March 1, 2007 – Blue Ridge Community College, Workforce Services and Continuing Education Center – Weyers Cave

Tentative Agenda:

- Corn/soybean/wheat outlook
- Dairy outlook
- Cattle outlook
- Tobacco outlook
- Nursery outlook
- Poultry outlook
- Agricultural inputs outlook
- General monetary outlook
- Direct marketing
- Futures and options tools for using what you've learned

Conference Will Help Horse Owners Understand Forages

College of Agriculture and Life Sciences Media; Contact Michael Sutphin by phone at (540) 231-6975 or by e-mail at msutphin@vt.edu

BLACKSBURG, VA, December 11, 2006 -- Each year, Virginia's horses consume more than 500,000 tons of hay valued at approximately \$100 million. In light of this, Virginia Cooperative Extension and the Virginia Forage and Grassland Council will explore how producers can maintain a healthy animal, pasture, and environment at this year's equine forage conference, February 8-10.

The conference will be repeated on Wednesday, February 8, at the Virginia Horse Center in Lexington, VA; Thursday, February 9, at the fairgrounds in Warrenton, VA; and Friday, February 10, at New Kent High School in New Kent, VA. Registration for each session will begin at 8 a.m., and events will end at 3:30 p.m.

As one of the fastest growing segments of Virginia agriculture, the equine industry and its impact will be the focus of this year's conference. "This conference will help producers gain important knowledge of the horse industry and how to tailor their products and services to meet the needs of the consumer," said Gordon Groover, Extension farm management specialist at Virginia Tech, who will be discussing the feasibility and cost of hay at the conference. "This conference will provide horse owners with skills that will improve the well being of their horses and the environment in which they live."

Speakers will address establishing forages, fertility and forage cutting management, and the legality of selling hay:

- David Pugh, of Fort Dodge Animal Health, will be speaking about equine nutrition and pastures.
- Andrea Heid, an equine marketing specialist for the Virginia Department of Agriculture and Consumer Services, will discuss the impact of horses on Virginia.
- Les Vough, a retired crop Extension specialist from the University of Maryland, will address hay quality and its value for horses.
- Leon Geyer, Professor of Agricultural and Applied Economics at Virginia Tech, will explore business and legal issues of selling hay.
- Chris Teutsch, an Associate Professor of Crop and Soil Environmental Sciences at Virginia Tech's Southern Piedmont Agricultural Research and Extension Center, will cover plant growth for successful pasture management.
- Ann Swinker, an Extension horse specialist at Penn State, will use her research expertise on management and environmental issues to discuss balanced equine management.
- Lewis Sapp, of Salem, NC, who worked for Gallagher Power Fence for 25 years, will give a presentation on cost-effective fencing for horses.

The Virginia Department of Conservation and Recreation supports the conference. The early registration fee is \$25 for Virginia Forage and Grassland Council members and \$35 for non-

members. After the January 25 deadline for early registration, the fee is \$35 for Virginia Forage and Grassland Council members and \$45 for non-members.

For more information or to register for the conference, contact Margaret Kenny at <mailto:makenny@vt.edu> or (434) 292-5331.

<u>PLEASE PRINT</u>	
Name	
Address	
City, State, Zip Code	
Email	
<div style="border: 1px solid black; padding: 5px;"><i>Check box of meeting you are attending</i></div>	
<input type="checkbox"/>	Virginia Horse Center – Lexington February 8, 2007
<input type="checkbox"/>	Fair Grounds – Warrenton February 9, 2007
<input type="checkbox"/>	High School - New Kent February 10, 2007
\$25.00 early signup VFGC member (2 WEEKS PRIOR TO MEETINGS)	
\$35.00 early signup Non-member (2 WEEKS PRIOR TO MEETINGS)	
\$35.00 late signup VFGC member	
\$45.00 late signup Non-member	
<i>Please make check payable to VFGC</i>	
Mail check and registration form to	
VFGC	
Margaret J. Kenny	
3599 Indian Oak Road	
Crewe, VA 23930	

Virginia Cooperative Extension brings the resources of Virginia's land-grant universities, Virginia Tech and Virginia State University, to the people of the commonwealth. Through a system of on-campus specialists and locally-based agents, it delivers education in the areas of

agriculture and natural resources, family and consumer sciences, community viability, and 4-H youth development. With a network of faculty at two universities, 107 county and city offices, 13 agricultural research and extension centers, and six 4-H educational centers, Virginia Cooperative Extension provides solutions to the problems facing Virginians today.

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This news release was written by Casey Marstaller, student intern for the College of Agriculture and Life Sciences.

Forage Conference Will Educate Producers about Grazing Practices
College of Agriculture and Life Sciences Media; Contact Michael Sutphin by phone at (540) 231-6975 or by e-mail at msutphin@vt.edu

BLACKSBURG, VA, December 11, 2006 -- Virginia Cooperative Extension and the Virginia Forage and Grassland Council will explore the theme, "Profitable Pastures: Extending Grazing" at this year's winter forage conference, January 23-25. Producers will learn how to increase their profits by extending the time livestock feed on forages.

The conference will be repeated on Monday, January 23, at the Armory in Suffolk, VA; Tuesday, January 24, at Central Virginia Community College in Lynchburg, VA; and Wednesday, January 25, at the Southwest Virginia 4-H Center in Abingdon, VA. Registration will begin at 8 a.m., and events will end at 3:30 p.m.

"Beef producers will gain skills and knowledge of economical ways to manage pastures that will result in reduction of costs by extending the grazing and reducing use of expensive stored feeds or purchased grains," said Gordon Groover, Extension farm management specialist at Virginia Tech, who will discuss the cost of hay for grazing operations at the conference. "Farmers will also gain knowledge about beef marketing and practical knowledge of marketing their calves."

Researchers, producers, and government officials will present at the conference on a wide range of topics:

- Bill West, a successful beef producer in Ripley, WV, will share his experiences with year-round grazing.
- Emmit Rawls, of the University of Tennessee, will discuss the cow-calf cycle and the importance of forages for these animals.
- Jim Cropper, of the Natural Resource and Conservation Service in Greensboro, NC, will explain how controlled grazing affects soil ecology.
- Patrick Cook, the small game project leader for the Virginia Department of Game and Inland Fisheries, will present information about wildlife damage to livestock.
- Robert Shoemaker, of the Virginia Department of Conservation and Recreation, will discuss his concept of beef production that revolves around year-round rotational grazing systems with limited inputs.

- Lewis Sapp, of Salem, NC, who worked for Gallagher Power Fence for 25 years, will be discussing cost-effective fencing for grazing systems.

The Virginia Department of Conservation and Recreation supports the conference. The early registration fee is \$25 for Virginia Forage and Grassland Council members and \$35 for non-members. After the January 9 deadline for early registration, the fee is \$35 for Virginia Forage and Grassland Council members and \$45 for non-members.

For more information or to register for the conference, contact Margaret Kenny at <mailto:makenny@vt.edu> or (434) 292-5331.

<u>PLEASE PRINT</u>	
Name	
Address	
City, State, Zip Code	
Email	
<input type="checkbox"/>	Armory – Suffolk January 23, 2007
<input type="checkbox"/>	Central VA Comm. College – Lynchburg January 24, 2007
<input type="checkbox"/>	Southwest VA 4-H Center - Abingdon January 25, 2007
<p>\$25.00 early signup VFGC member (2 WEEKS PRIOR TO MEETINGS)</p> <p>\$35.00 early signup Non-member (2 WEEKS PRIOR TO MEETINGS)</p> <p>\$35.00 late signup VFGC member</p> <p>\$45.00 late signup Non-member</p> <p style="text-align: center; margin-top: 20px;"> <i>Please make check payable to VFGC</i> Mail check and registration form to VFGC Margaret J. Kenny 3599 Indian Oak Road Crewe, VA 23930 </p>	

Virginia Cooperative Extension brings the resources of Virginia's land-grant universities, Virginia Tech and Virginia State University, to the people of the commonwealth. Through a

system of on-campus specialists and locally-based agents, it delivers education in the areas of agriculture and natural resources, family and consumer sciences, community viability, and 4-H youth development. With a network of faculty at two universities, 107 county and city offices, 13 agricultural research and extension centers, and six 4-H educational centers, Virginia Cooperative Extension provides solutions to the problems facing Virginians today.

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This news release was written by Casey Marstaller, student intern for the College of Agriculture and Life Sciences.

Calendar of Events

December

- 14-15 Income Tax Seminar. Richmond II. Contact seminar registrar at (540) 231-4084 or by email at vttax@vt.edu or Leon Geyer, Program Director, at (540) 231-4528 or by email at geyer@vt.edu.

January

- 23 22007 Virginia Forage and Grassland Council Winter Conference: Profitable Pastures-Extending Grazing. The National Guard Armory, Suffolk, VA. Contact Margaret Kenny at (434) 292-5331 or by email at makenny@vt.edu.
- 23-25 Virginia Grown Conference. Crown Plaza Fort Magruder, Williamsburg, VA. Contact the Virginia Grown Association at (540) 667-9101 or visit the conference web site at www.viriniagrownconference.com.
- 24 2007 Virginia Forage and Grassland Council Winter Conference: Profitable Pastures-Extending Grazing. Central Virginia Community College, Lynchburg, VA. Contact Margaret Kenny at (434) 292-5331 or by email at makenny@vt.edu.
- 24 Finding Ways to \$ave the Family Farm. Airfield 4-H Center, Wakefield, VA. Contact Mike Roberts at (804) 733-2686 or by email at mrob@vt.edu.
- 25 2007 Virginia Forage and Grassland Council Winter Conference: Profitable Pastures-Extending Grazing. Southwest VA 4-H Center, Abingdon, VA. Contact Margaret Kenny at (434) 292-5331 or by email at makenny@vt.edu.
- 28-Feb 2 Mid-Atlantic Horticulture Short Course. Ramada Plaza Oceanfront Resort and Conference Center, Virginia Beach, VA. Contact Marla Nock at (757) 523-4734 or visit the conference web site at www.mahsc.org.

February

- 8 2007 Virginia Forage and Grassland Council Winter Conference: Forages for Horses: Maintaining a Healthy Animal, Pasture, and Environment. Virginia Horse Center, Lexington, VA. Contact Margaret Kenny at (434) 292-5331 or by email at makenny@vt.edu.
- 9 2007 Virginia Forage and Grassland Council Winter Conference: Forages for Horses: Maintaining a Healthy Animal, Pasture, and Environment. Fair Grounds, Warrenton, VA. Contact Margaret Kenny at (434) 292-5331 or by email at makenny@vt.edu.

- 10 2007 Virginia Forage and Grassland Council Winter Conference: Forages for Horses: Maintaining a Healthy Animal, Pasture, and Environment. New Kent High School, New Kent, VA. Contact Margaret Kenny at (434) 292-5331 or by email at makenny@vt.edu.
- 21 Virginia Agricultural Outlook Meetings. Paul D. Camp Workforce Center. Franklin, VA. Contact Mike Roberts at (804) 733-2686 or by email at mrob@vt.edu.
- 23 Virginia Agricultural Outlook Meetings. Germanna Community Workforce and Technology Center. Fredericksburg, VA. Contact Mike Roberts at (804) 733-2686 or by email at mrob@vt.edu.
- 28 Virginia Agricultural Outlook Meetings. Southwest Virginia Higher Education Center. Abingdon, VA. Contact Mike Roberts at (804) 733-2686 or by email at mrob@vt.edu.

March

- 1 Virginia Agricultural Outlook Meetings. Blue Ridge Community College, Workforce Services and Continuing Education Center. Weyers Cave, VA. Contact Mike Roberts at (804) 733-2686 or by email at mrob@vt.edu.