Virginia Cooperative Extension

Farm Business Management Update
April – May 2005

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 (at 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."

Gordon E. Groover
Extension Economist, Farm Management
and Farm Management Coordinator

Karen Mundy
Rural Economic Analysis Program
Communications Specialist

Item Page

Virginia Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Patricia Sobrero, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Lorenza W. Lyons, Administrator, 1890 Extension Program, Virginia State, Petersburg.

VIRGINIA STATE UNIVERSITY

The Management Calendar

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

Listed below are the items that need to be included on the farm business manager's calendar for spring 2005.

- Fertilizer costs are tied to oil costs and both are reaching some record prices. Some key points:
  - Resist the urge to over fertilize and use previous crop yield data to help target the most profitable use of fertilizer.
  - Remember that profits are maximized when the value of the last unit of fertilize equals the value of the increase in the yield. As fertilizer prices increase, the amount applied to a crop to achieve profitable yields must be reduced (assuming that the crop price does not change). I quote, "That's easy for you to say since you're not the one that has to figure out what that means on the Jones's field." Use crop yield data, soil test information, fertilizer histories of each field, and consult with your extension agent for potential published field plot yield data that might shed light on yield responses to nitrogen in your area.
  - Consider split applications of nitrogen as certainty of moisture conditions increase during the growing season. Remember that the increase yield from the additional application of nitrogen must cover the added costs of the nitrogen and the added costs for application and labor.
  - If you have detailed yield maps, soil productivity, and technology for variable rate application – now is the time to make use of the technology to target apply fertilizer based on profitable yields.
  - Cut fertilizer costs by using poultry litter. Farmers outside of Augusta, Page, Rockingham, or Shenandoah counties should investigation participation in the 2004 pilot project to develop self-sustaining poultry litter markets. If farmers meet all requirements, cost-share is available to move litter out of the major poultry producing counties. For additional information on the program and requirements for cost share, contact your local soil and water conservation district, Virginia Cooperative Extension office, or DCR regional office for an application. A brochure can be found at http://www.dcr.state.va.us/sw/docs/poultry.pdf . Funding will be allocated for complete and approved applications on a first-come, first-served basis. For more information call Scott Ambler at (804) 786-2235.
- Review first quarter livestock records and compare them to last year's; look for problems and successes.
- *Make sure your Virginia state income taxes are mailed in before May 1.*
- Follow-up with your lender to review and update your line-of-credit needs.
- Farmers, extension agents, and anyone interested in risk management, marketing, budgets, and other educational tools and products should take a look at the National Risk Management library at the University of Minnesota http://www.agrisk.umn.edu/Default.asp. For example, approximately 80 publications dealing with grain, livestock, niche markets, and price risk management have been developed by Agricultural Economists all over the U.S.

- New from USDA Economic Research Service is a publication answering the question posed by many, "How Do U.S. Farmers Plan for Retirement?" Retirement and succession planning are of considerable importance to farm households and we have good reasons to believe that they are affected by savings and retirement policies in ways that are different from the rest of the Nation's households. This article examines how farmers save for retirement as well as their dependency on social security. The complete article can be found on the *Amber Waves* site at http://www.ers.usda.gov/AmberWaves/April05/Features/FarmRetirement.htm.
- Anyone trying to sell more vegetables and fruits to consumers should read the *Amber Waves* article providing some basic information on how and why U.S. consumers purchase and consume fruits and vegetables. The article is titled "Understanding Economic and Behavioral Influences on Fruit and Vegetable Choices." The article can be found at http://www.ers.usda.gov/AmberWaves/April05/Features/FruitAndVegChoices.htm
- Prepare crop record keeping system for a new year. If you do not have a crop record keeping system, consider purchasing the Doane's hand-kept crop and machinery notebook, "Field and Equipment Record Book." This notebook provides an inexpensive way of getting started. It can be ordered via the Internet at http://www.doane.com/bookshelf/shop.php or by calling 1-800-535-2342, ext.220. The price is less than $20.00. For a selection of computerized crop record keeping software take a look at the Agricultural Software Directory from Alberta Agricultural Food and Rural Development site: http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/econ4118?opendocument.
- Update your marketing plan 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. Review USDA and other crop and price forecasts. All USDA reports are listed on the internet and can be view by going to Agency Reports on the USDA newsroom page.
- Interested in research and extension publications on organic livestock production beef, dairy, poultry, swine, and small ruminants? Then take a look at the Alternative Farming Systems Information Center's publication, "Organic Livestock Production: A Bibliography." The bibliography list work from 1974 to September 2004. The full publication can be found at http://www.nal.usda.gov/afsic/AFSIC_pubs/srb0405bib.htm.
- Interested in learning more about personnel management? Take a look at the Iowa State Ag Decision Maker site for the following article *Hiring Good Employees* http://www.extension.iastate.edu/agdm/wholefarm/pdf/c5-100.pdf and I*mproving your Interviewing Skills* at http://www.extension.iastate.edu/agdm/ both authored by Bob Tvrdik.

What does your Farm Equipment Cost you to Operate?

By Keith Dickinson (keith.dickinson@vt.edu), Extension Agent, Farm Business Management, Northern District

With the exception of land and buildings, farm equipment can be the most significant financial expenditure for farmers in Virginia. No matter what type of farming operation an individual may

have, nearly everyone will have at least one tractor and a handful of implements which are critical to the successful week to week operation of the farm. While estimating what a new or used piece of farm equipment will cost to purchase can be fairly easy, many farm managers are hard pressed to say what that same piece of equipment will cost them per hour or per acre to operate.

Knowing the operating cost of farm equipment is very important for the farm manager. As a key component of the overall cost of production for crops, this information is critical for knowing what a profitable selling price is. With an increasing demand for custom services, understanding equipment operating costs is important in setting custom work rates. Cost of operation is an important factor in evaluating replacement timing and comparing different equipment options as well.

Two basic types of costs are associated with farm equipment: ownership costs and operating costs. Ownership costs are those costs incurred by simply owning the equipment, regardless of the use of the equipment, and are also commonly called fixed costs. The key factors in calculating ownership costs are purchase price, life of the equipment, salvage value, depreciation, interest expense, taxes and insurance, annual use, and housing (if the equipment is stored inside).

Interest costs should be charged to the cost of operating the equipment, regardless of whether the equipment was purchased with cash or credit. This procedure accounts for the cost of giving up the opportunity of using that capital elsewhere in the farm operation. If the same cash could be used to pay off another debt or as an investment or savings, the interest rate relevant to the opportunity should be used to calculate the annual interest costs for the equipment purchase. Inflation should be deducted from the interest rate to properly account for inflation. The average inflation rate for the past 5 years is 3.25%.

Operating costs are the costs incurred as the equipment is used and include such factors as fuel, lubrication, depreciation, labor, and maintenance and repairs: the variable costs of the equipment. Several tools are available to help farm managers estimate the annual operating costs for farm equipment. The American Society of Agricultural Engineers (ASAE) publishes standards for calculating the operating costs of most standard types of farm equipment. A few universities publish tables annually that summarize costs of equipment. Online and downloadable computer programs are available to help determine equipment operating costs. A partial listing of some of these resources appears later in this article.

Depreciation is the cost of wear and tear, age, and changes in technology. Depreciation is calculated by subtracting the salvage value from the purchase price, and then dividing by the number of years the equipment will be in service (economic life). Several sources provide tables that can help determine estimates for salvage values. Since the salvage value will vary both depending on the annual hours of use and on time factors, it is considered to be both a variable cost and a fixed cost.

Good farm records have a place in estimating the operating cost of a piece of equipment. While tables can be found that provide estimates of cost per acre or per hour, there is no substitute for

the real world experience of an individual farm manager. Each farming operation is different, with different efficiencies and factors in performing tasks. Therefore, a farm recordkeeping system is crucial in both knowing what farm equipment has cost in the past, as well as estimating what it will cost in the future.

Records should be kept on the number of hours spent and land area covered or tons produced while performing various tasks, such as making hay, planting or grinding feed. A daily diary can be used to record this information. When this information is combined with the previous costs, an accurate estimate of equipment costs per acre or per ton can be developed. While fixed costs can generally only be estimated for future costs, the actual variable costs based on good records are always better to use than estimates from tables. Of course, in the case of new equipment, variable costs such as fuel usage and repairs cannot be accurately estimated from experiences with older equipment, and tables should be used in the first year of operation or for purposes of comparing different options.

Once an accurate estimate of the cost of operating machinery has been determined, the farm manager will be well equipped to make several farm management decisions. For example, if a neighbor approaches a farmer to inquire about having his pasture custom-seeded, the farmer can make an informed decision about the proper rate to charge for this service. Armed with the knowledge of the full cost of production, a crop producer knows what the breakeven price for his crop is and will thereby look for selling at a profitable level. Finally, with the ability to compare different equipment options based upon their cost per acre or per unit of production, the farm manager will know which option will provide the best potential economic return to the farm.

Suggested references:
"Estimating Farm Machinery Costs" Iowa State University Extension Publication:
http://www.extension.iastate.edu/Publications/PM710.pdf
"Farm Machinery Cost Estimates for 2005" University of Minnesota Extension Publication:
http://www.extension.umn.edu/distribution/businessmanagement/DF6696.pdf
Machinery Cost Calculator Program: University of Tennessee:
http://economics.ag.utk.edu/mcc.html

Are you Considering a Value-Added Agriculture Enterprise?

By Keith Dickinson (keith.dickinson@vt.edu), Extension Agent, Farm Business Management, Northern District

The term "Value–Added" is getting a lot of use these days. In agriculture, this term refers to the processing or modification of a farm product to add value to it. Examples might include a beef cattle farmer who decides to finish and slaughter her cattle and sell beef, rather than selling the live animal as a feeder calf. Another example might be a tomato grower who decides to use his tomatoes to make salsa, rather than sell them fresh at the farmer's market. It could even be something as simple as a hay producer who decides to produce high-quality hay in square bales for the equine market, rather than lower quality hay in round bales for the cattle market.

The good news for agricultural producers considering starting a value-added agricultural enterprise is that federal grants are now available to help with the starting of such a business. Authorized in the 2002 Farm Bill, the Value Added Producer Grant (VAPG) Program makes grants to eligible producers and producer groups through the U.S. Department of Agriculture (USDA) division of Rural Development. The primary objective of the VAPG is "to encourage producers of agricultural commodities and products of agricultural commodities to further refine these products increasing their value to end users."
http://www.rurdev.usda.gov/rbs/coops/vadg.htm

Grants through the VAPG program may be used for planning a value added enterprise through doing feasibility or marketing studies or for working capital for the start up of such an enterprise. A feasibility study or business plan is needed for working capital grants; therefore, if a feasibility study has not yet been performed, a planning grant should be applied for. Both independent producers and producer groups, such as cooperatives, are eligible. However, independent producers must produce at least 50% of the ingredients of the value added product and producer groups must identify the independent producers for whom the study is being performed.

The deadline for applying for the VAPG is May 6, 2005. The complete award notice and application instructions are available from the VAPG website. Anyone interested in applying for a grant should begin soon to draft a well prepared application and to obtain necessary documentation for the project.

Produce Auction Shows Promise

By Tom Stanley (stanleyt@vt.edu), Extension Agent, Farm Business Management, Northwest District

Since February 2004, a group of farmers in Rockingham County, Virginia have been exploring the feasibility of starting a produce auction in their area. Extension Agents Eric Bendfeldt and Tom Stanley have worked closely with these farmers to determine what was involved in conducting regular "out-cry" auctions for wholesale quantities of high-value products such as hand-picked vegetables and bedding plants.

The farmers elected a steering committee to investigate various aspects of the business and present the group with recommendations. The steering committee made several trips to Pennsylvania produce auctions and interviewed the managers of more than six produce auctions.

Successful produce auctions have certain characteristics. In virtually all cases, they have been established where the majority of growers were members of "plain" communities (Amish, Mennonite, and other Anabaptist denominations). They start with between 20 and 75 growers representing 50 to 100 acres of produce. The auctions do not co-mingle product. Growers are identified with a number and their products are identified as they are auctioned. Sale lots vary widely in size and quantity and often consist of more than one product. Virtually all produce auctions welcome, and even rely-on, product from out-of-state to provide the variety buyers need. Buyers are most often roadside produce stands, independent grocery stores (IGA, Red Front, Natural Food Stores) and other local retail markets. Typically, the auction facilities do not

refrigerate any product. The product is picked and boxed at the farm the night before or early on the morning of the sale. The sales are held in the morning and last three to four hours. By noon the buyers have loaded their purchases and are gone.

Buyers & Growers follow the sale, Cumberland Valley Produce Auction, Shippensburg PA, May 2004

All the produce auction managers interviewed stress that the growers must be committed to the auction through market lows as well as the highs. Across all the successful produce auctions examined, a strong sense of community and a belief that commitment to the auction will in the end "create a market" where none before existed.

Hanging Basket ready for auction. Cumberland Valley Produce Auction, Shippensburg PA, May 2004

We have had the opportunity to interview numerous farmers in Pennsylvania and Maryland who are growing for their local produce auctions. Several had successfully phased-out their small dairy herds completely and were now relying on produce as their primary source of income. Virtually all the farm operators interviewed shared the following characteristics. They had extended families and neighbors who were helping on the farm and the farm operators' in-turn helped them on theirs. They all were cultivating less than 20 acres, and all had at least one greenhouse unit. They all viewed the auction as their primary outlet for product, but many sold product retail at their own roadside stand or at a local farmers' market.

At this point, the Shenandoah Valley Produce Auction has formed a Limited Liability Corporation, adopted a set of bylaws, collected start-up capital, and intends to hold its first auction in May. The Mennonite communities in the Shenandoah Valley appear to be well-suited for establishing this type of produce auction that has been successful in similar communities elsewhere in the country. Commitment by a united community of farmers to a lifestyle

conducive to labor-intensive agriculture will be essential for the success of the Shenandoah Valley Produce Auction, LLC.

Calendar of Events

May

16 Farm Transition Workshop; Wakefield, Virginia. Contact: Jesse Richardson at (540) 231-7508 or E-mail: jessej@vt.edu

17 Farm Transition Workshop; Hickory, Virginia. Contact: Jesse Richardson at (540) 231-7508 or E-mail: jessej@vt.edu