Virginia Cooperative Extension

Farm Business Management Update
April-May 2010

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 feel free to reproduce any article. However, please cite the title, author(s), date, and this Newsletter.

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Extension Economist, Farm Management and Farm Management Coordinator

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When this Storm Passes: Managing the Farm Family's Living Expenses

By Bill Whittle (wwhittle@vt.edu), Extension Agent, Farm Business Management, Northwest District

In a past article I addressed the reasoning behind accumulating a Cost of Production Cash Reserve when income is positive to assist with managing farm expenses during economic downturns. The same need for a cash reserve exists to manage the 800 pound gorilla that lives with every farm family. That 800 pound gorilla is Family Living Expenses, which all too often sneaks up and lays the family low during times of farm financial distress. The question to be addressed is, "What will you do if farm income declines for several months?"

Farm families have not historically managed family living expenses in the same manner as a wage earner. The farm often is the source of income, a lifestyle, a home, and a part of the family ethos, so the pot of money blends together blurring farm operating expenses and family living expenses. However, just like there is a great need in agriculture to institute enterprise accounting, i.e. keeping records of each enterprise on the farm (milking cows, heifers, corn, hay, beef herd, etc.) so you can actually determine the profitable enterprise and the money loser, family living expenses need to be tracked so they can be managed. Financial distress creates havoc with the management of the farm and it can also create stress and havoc within the family. The family becomes so focused in trying to keep the farm afloat they may not manage the financial stress that wears down even the strongest families. Separating farm and family accounts and savings allows the money manager time to make decisions rather than just reacting to the situation.

The first step is to determine your necessary family living expenses. Some Mid-West surveys show that Family Living Expense for a farm family of four is well over $50,000 per year. Tracking family living expenses and developing a budget requires effort to get it right rather than a close-enough guess. Start with determining exactly what comprises your family living expenses and the amount of money you spend on each category: food, medical, charity, education, recreation, etc. What do you spend for food? This includes not only the grocery store but restaurants and even milk from the bulk tank or a slaughtered beef because it has a value to you. It may not be the same as the grocery store price but the cost of raising and processing the foodstuff needs to be counted since without the benefit of the farm you would have to pay for it. Your home may be part of the farm but it has a value, whether it is fair-market rental or the value of taxes, insurance, upkeep, utilities, etc.

The next step is to determine how much money you need in a reserve. It is important to note that consumption, i.e. what you have been spending, may not be necessary living expenses. But if you have developed an accurate budget you can then pare the amount down to the essentials necessary to keep the family functioning at a level of your choosing. Then you decide how large of a cushion to accumulate. In the non-farm community past recommendations have been that that families accumulate a reserve equal to 3-6 months of living expenses. With the length of this downturn it may be wise to move that to a 6-12 month reserve.

The last steps are where to park the money and when to use the money in the Family Reserve Account. This is not a bank account to fund the farm during hard times because you addressed

that issue with the COP Cash Reserve and it is not a vacation account. It has a specific purpose of sitting in a safe and reasonably accessible account until the farm can no longer pay a living wage for some period of time.

Of course in reality, it is impossible to start squirreling money away for the farm or family until profitability returns. But it is not too early to plan for future profitability. Without a plan it is amazing how money tends to "slip" away whether for new equipment, expansion, paying off debts or living expenses. All may be valid and needed but an orderly, thought out process is required to insure your goals are met. During the planning stage you will want to decide the trigger for using these funds just like you should determine what triggers the use of the farm cash reserve. A last point is to realize that accumulating cash reserves is a methodical process that requires time.

Another Look at Current Ratio: A Measure of Your Effective Cash Reserves

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

The "current ratio" is one measure of a farm business's *Liquidity;* "the ability of the farm to meet financial obligations as they come due in the ordinary course of business, without disrupting the normal operations of the business" (http://ffsc.org). Specifically, the current ratio measures cash reserves and the farm business's ability to handle unexpected changes in expenses or income. Farm business managers can calculate their current ratio by dividing current liabilities (those liabilities payable in the next 12 months (accounts payable, operating loans, the principal portion of scheduled loan payments, and accrued expenses) by current assets (cash assets and assets that can be readily converted into cash within the next 12 months). A current ratio of 1.8, for example, means that for every $1 a farm expects to be required to pay within the next 12 months, there is $1.80 in assets that can be readily turned into cash to meet those obligations.

What a farm's current ratio should be depends on a number of factors including the type of enterprise(s) in which a farm is engaged, the market volatility a farm is likely to face within the next 5 years, the level of indebtedness the farm carries, and the annual cash flow pattern for the farm. Traditionally, current ratios of 1.5 up to 2.5 were considered sound.

The dramatic changes in agricultural markets that marked the period from 2007 through 2009 have many agricultural businesses re-thinking what level of cash reserve is appropriate. Many agricultural enterprises, especially Virginia dairy farms, have depleted cash reserves over the past 12 to 18 months and anemic markets are making it difficult to rebuild cash reserves.

How does a farm go about building cash reserves and how does a farm justify holding cash when faced with outstanding debt? The answer may be simple but not easy. The solution relies on good old-fashioned self-discipline. Here are some guidelines farm operators may find helpful in moving toward a stronger current ratio.

1) Pay-off operating lines of credit. An operating line of credit should function as a cash reserve (e.g. operating lines of credit should not but used to purchase significant capital

assets like tractors!) and there is no sense in paying interest on principal if the operating line of credit is to remain open and function as cash reserve.

2) Pay-down high interest rate loans. In the past 12 to 18 months some farm businesses have had to use credit cards and other high cost financing strategies in order to keep the farm solvent. Any liabilities that have a high interest rate (higher than what is available through more conventional financing) should be paid off as quickly as possible.
3) As soon as an operating-line-of -credit is paid off and a plan is in place to address high interest accounts payable, the farm business should begin building cash reserves. The past 12 months have provided historic re-financing opportunities with exceptionally low interest rates available for many farmers. A loan that carries an interest rate that is below the historic average (under 8%) is a good buy and farm operators can take advantage of this interest rate by paying only what is due until cash reserves have been built.
4) Finally, the farm operator must make a determined effort to set-aside some cash every month until the current ratio approaches a level the farm operator and the primary lender to the farm business deem appropriate.

Are current ratios ranging from 1.5 to 2.5 adequate? As indicated at the beginning of this article, it depends on a number of factors. Many market analysts are suggesting the volatility we observed from 2007 through 2009 represents a "new market reality." Add to this the aftermath of the financial crisis that has prompted virtually all lending institutions to tighten their credit standards which makes it harder to borrow operating capital. The previous two years have provided ample evidence to suggest individual farms should work toward a higher current ratio than what they have traditionally maintained.

Maximizing Your Fertilizer Dollars

By Peter Callan (peter.callan@vt.edu), Extension Agent, Farm Business Management, Northern District

In the past two years, many producers reduced the pounds of fertilizer applied to their crops because fertilizer prices were at all time highs. Consequently, their crops mined nutrients from their soils' bank of nutrients. This year producers are asking the question, "With the decline in fertilizer prices and limited funds for purchased fertilizer, how do I get the most bang for my buck?" Dr. Mark Alley, Virginia Tech soil fertility specialist, stated that yields for corn, wheat, and legumes (soybeans and alfalfa) start to decline when soil pH drops below 6.0. There are significant losses in yields for these crops when soil pH levels drop below 5.5.

A current soil test provides fertilizer recommendations for crops that a producer grows on his farm. As a former dairy farmer, I suggest soil testing all fields once every two years or preferably once a year for several reasons. First, crop yields are reduced in drought years and do not remove the expected levels of phosphorous (P) and potassium (K) which would have been removed in a "normal" crop year. If animal manures (poultry litter, cattle manure, etc.) have been applied to the soils, an updated soil test will provide P and K levels in the soil. Soil testing takes out the guesswork and prevents the producer from under or over-applying lime and fertilizer, either of which will decrease your efficiency and profitability. Soil test laboratory recommendations are based on research conducted for Virginia soils and climate. There is no

charge for in-state commercial farm soils samples analyzed at the Virginia Tech Soil Testing Laboratory. What a deal!

Dr. Mark Alley recommends that producers keep soil pH levels between 6.0 – 6.5 for optimal crop production. Producers may wish to consider more frequent applications of lime as a way to lower cash outlays and maintain pH levels greater than 6.0. Brian Jones, crop extension agent, advises that once the desired pH has been achieved; the producers should allocate their fertilizer dollars to the nutrients in least supply to balance a crop's requirements. By following the soil test recommendations, producers will maximize crop yields from purchased fertilizer inputs.

On many farms there are variations in soil types. Yields may vary within the field due to different soil types. Yield monitors on combines enable producers to measure the variation of yields throughout a field. The yield monitors help the producer answer the following question: "Is it economical to apply different rates of fertilizer and lime to specific areas in a field?" From my experience, a producer may wish to consider adjusting the lime and fertilizer rates if the particular area is greater than two acres in the field. On the practical side, I would suggest having a maximum of two or three different fertilizer and lime rates per field. In my opinion, the owner or key employees who operate the planting and harvesting equipment are the ones that should be taking the soil test because they understand the soil types and yields harvested in a field.

A crop budget will help a producer determine the number of dollars that can be spent on fertilizer and lime in order for the producer to breakeven and generate a profit. Fertilizer prices will impact the pounds of fertilizer which will be applied to a field. Producers need to calculate the cost of nitrogen, phosphorus and potash on a per pound basis from commercial fertilizer and broiler litter, sludge and cattle manure to determine the least cost way to apply nutrients to the soil. Likewise, producers must remember that there will be volatilization of ammonia from broiler litter, cattle manure and urea if rain is not received to wash the nitrogen into the soil. In times of high fertilizer prices, there will be reductions in purchased fertilizer. Using updated soil tests, producers can work together with their local extension agents to determine fertilizer application rates that will enable producers to generate profits and maintain or increase soil fertility in an era of volatile crop and fertilizer prices.

Spring Nitrogen Fertilization of Hayfields in 2010: Will it Pay?

By Greg Halich (Greg.Halich@uky.edu), Farm Management Specialist, Department of Agricultural Economics, University of Kentucky

(Reprinted from the *Economic and Policy Update*, Vol. 10. No. 3, March 2010)

We are at the point where farmers would normally start to apply nitrogen to hayfields to boost spring and early summer production levels. However, with a fair amount of hay leftover from 2009 and urea selling at over $400 per ton, many producers are questioning the profitability of this practice in 2010. While the price of nitrogen is known with a high degree of certainty right now, the price that hay will ultimately sell for this fall and winter is not. Thus, the question ultimately comes down to at what hay prices will nitrogen applications prove profitable this year?

To help answer this question, the major factors that impact spring-applied nitrogen profitability were analyzed. These include the price of nitrogen, price of hay, response rate of the nitrogen, nitrogen application rate, increased production costs from additional forage, improved quality of nitrogen fertilized hay, and additional P and K removal.

The price of nitrogen was evaluated on an elemental (unit) basis between $.40-.50 per pound ($370-460 per ton urea). Two application rates were evaluated: 40 unit applications (87 lbs urea) and 80 unit applications (174 lbs urea). The response rate of nitrogen declined as application rate increased. The application cost for spreading the nitrogen was set at $5/acre. Machinery and labor costs of producing the extra hay were estimated at $12.90 per 1200 pound bale (including moving to storage) and $1.36 per 45 lb small square bale (including moving to storage), both sold on the farm. These costs include improved efficiency factors resulting from increased forage density and include mowing, raking, baling, and moving bales to storage for the additional forage produced.

Improved forage quality of nitrogen fertilized hay was accounted for by assuming a 1.0 ton yield without nitrogen, and valuing this hay at $5 and $10 per ton less than the nitrogen fertilized hay for round and square bales respectively. Two scenarios were evaluated for P and K removal: 1) 100% replacement and, 2) 50% replacement. Approximately 18 lbs of P_2O_5 and 50 lbs of K_2O are removed for each ton of hay. It was assumed that the cost of replacing P_2O_5 was $.35/unit ($485/ton of 18-46-0) and the cost of replacing K_2O was $.45/unit ($540/ton of 0-0-60). Keep in mind that even if a soil test does not recommend P and K applications for the current year, nutrients are still being taken from the soil and that they will have to be replaced at some point.

A range of hay prices were evaluated to determine which prices, if any, would result in profitable nitrogen applications this year. With small square bales, nitrogen applications were consistently profitable at the 40 lb rate for hay prices of $2.50/bale and greater. However, for large round bales, profitability of nitrogen applications occurred in fewer cases. In general, round bales needed to sell for at least $70/ton with 100% replacement of P and K, and $60/ton with 50% replacement of P and K. Moreover, 40 lb application rates were always more profitable than 80 lb application rates for round bale production. For more detailed results, consult the publication "Profitability of Spring Hayfield Nitrogen Applications – 2010 Guide" (AEC 2010-02) available at:
http://www.ca.uky.edu/cmspubsclass/files/extensionpubs/departmentseries/aec2010-02.pdf

The Management Calendar

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

As you start the new crop season make a special effort to keep production records on crops, livestock, forages, and pastures. The combination of production and financial records opens up a new level of management control; for example, cost per ton of forage, breakeven prices and yields, and average monthly cost per cwt of milk. This information can be used to help direct profitable use of fertilizers or feed to more profitable fields or animals. The first step is to make

a wish list of items you know would be useful if you just had the data or information. Next ask extension agents, neighbors, lenders, and leaders in your industry what software they use and why, and make sure to ask what's good and bad about using the program to get basic data. Then narrow down the list to ones that look promising. Select one to test and make sure that the company honors the 30-day trial period. Make sure you enter data, test out how data is downloaded from monitors (yours and custom operators), test out the pre-program analysis features, see if you can design custom analysis, and make sure that the software has trend analysis for multiple year comparisons. Test drive the software and if it meets your needs put it to use along side your financial record keeping system.

Listed below are the items that need to be included on the farm business managers' calendar for spring of 2009.

- Make sure your Virginia state income taxes are postmarked by May 1.
- Review first quarter livestock records and compare them to last year's; look for problems and successes.
- Livestock producers should develop a detailed feed budget for all of 2010 and winter 2011. Include current feed costs, estimate this year's production under average and drought conditions, and estimate demand until 2011. Deficits should be addressed now. First, look locally for alternatives. For example, can you contract with a neighbor to buy their forages or grains, can you rent additional lands, can you work with a grain farmer to harvest his grains as silage, can you buy grain at harvest at a discount, consider high moisture grain storage, and so on? Second, if you cannot find local solutions then look to reputable brokers for forages and try to line up part of your supply needs this spring. As the season progresses, keep the budget up-to-date to make sure you have covered your feed demand one year out.
- Follow up with your lender to review and update your line-of-credit needs.
- Prepare a crop record keeping system for a new year.
- 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 viewed by going to Agency Reports on the USDA newsroom page or visit www.usda.gov/news/releases/rptcal/calindex.htm.

2008 Organic Agriculture Survey – Exploring the Results for Virginia's Producers & Consumers [1]

By Matthew C. Benson (mcbenson@vt.edu), Extension Specialist, Community Viability, Northern District

On February 3, 2010, the 2008 Organic Production Survey was released by the U.S. Department of Agriculture (USDA) National Agricultural Statistics Service. According to Agriculture

[1] The complete 2008 organic survey is available online at: http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Organics.

Deputy Secretary Kathleen Merrigan, "This was USDA's first wide-scale survey of organic producers, and it was undertaken in direct response to the growing interest in organics among consumers, farmers, businesses, policymakers and others."

Results from the survey show that nationally, there are 14,540 U.S. farms that were either USDA certified organic or were exempt from certification because their sales totaled less than $5,000. These operations comprised 4.1 million acres of land, of which 1.6 million acres were harvested cropland and 1.8 million acres were pasture or rangeland. While there are organic farms or ranches in all fifty states, nearly 20% of the operations were in California. California also led the nation in organic sales, with $1.15 billion, or 36% of all U.S. sales. Nationwide, 2008 organic production sales totaled $3.16 billion, including $1.94 billion in crops sales and $1.22 billion in sales of livestock, poultry and their products. For more information, both nationally and in Virginia, Virginia Farm Bureau's article published on March 4, 2010, available here, provides a good summary.

Taking a closer look at Virginia, according to the Survey, Virginia has 180 certified or exempt organic farms on 12,308 organic acres. Out of this total, 158 certified or exempt organic farms in Virginia maintain cropland (88%). In Virginia, 144 organic farms maintain and have organic harvested cropland, totaling 5,884 acres. In Virginia, there are 67 farms with organic pasture land on 5,164 acres. Currently, there are 25 farms transitioning cropland to organic production. Taking a closer look at organic production sales, Virginia had 156 farms with organic sales totaling $19.2 million. There were 138 Virginia farms selling organic crops, including nursery and greenhouse and 36 organic livestock and poultry farms.

To better understand the landscape of organic production in Virginia, a breakdown and analysis of farms by gross sales needs to be completed. Table 1 outlines organic production by USDA sales classifications and identifies the number and percentage of organic farms by sales category. So what do these statistics mean for Virginia's organic farm producers and growers, as well as for Virginia's consumers who are buying, or interested in buying, Virginia organic farm products?

Results show that over half of Virginia's organic production farms gross less than $5,000. This means that although there are a fairly large number of organic farms in Virginia, the majority of them are not contributing much economic activity. In addition, approximately 80% of Virginia's organic farms gross than $50,000. This is further evidence to substantiate this conclusion. Only 13 Virginia organic production farms (8%) gross between $50,000 and $250,000. This result shows that there are a small percentage of organic production farms in Virginia that are considered "mid-level" farms. These mid-level farms are often also considered 'family farms' with people's income and prosperity directly dependent on farm sales. Growing the agricultural base to develop more organic farms in Virginia in these sales categories could allow for increased availability of Virginia organic farm products, while further diversifying the industry and sector, and increasing rural incomes.

In further examining the 2008 survey results, over 90% of sales from Virginia's organic production farms come from just 19 certified organic farms (12%) which all gross over $250,000. This result shows that a relatively small number of large Virginia organic farms are

contributing a relatively large amount of the economic activity around organic agriculture. Finally, organic production farms in Virginia that gross less than $50,000 account for almost 80% of the total number of farms certified organic, but account for less than 2.5% of total organic farm production sales. Together, this result once again confirms Virginia's unequal distribution of Virginia organic farms and economic impact.

The USDA states that organic production is a system that is managed in accordance with the Organic Foods Production Act (OFPA) of 1990 (PDF) and regulations in Title 7, Part 205 of the Code of Federal Regulations to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. The National Organic Program develops, implements, and administers national production, handling, and labeling standards. The USDA Agricultural Marketing Service administers two organic certification cost-share programs. Each program provides cost-share assistance, through participating States, to organic producers and/or organic handlers. Virginia is not currently involved with the Agricultural Management Assistance Program, but is included in the National Organic Certification Cost-Share Program. More information about these cost-share programs is available online here.

To help grow the Virginia organic agriculture sector, a variety of additional methods and programs could be employed. These methods could range from hiring more expertise to assist in the field with organic farm transition to designing educational programs that teach the pros and cons of organic farm production. Virginia non-governmental groups such as Virginia Tech or Virginia State University could also submit a grant as part of the Organic Agriculture Research and Extension Initiative (www.csrees.usda.gov) or the Sustainable Agriculture Research and Education Program (www.sare.org). Although various cost-share programs are available, additional programs could be created specifically geared towards growing the mid-level organic farm. In all cases, if organic production agriculture is going to grow in Virginia, these methods, plus additional methods will need to be pursued and developed to fully diversify and integrate this type of farming.

Table 1. 2008 Organic Farm Production in Virginia

Sales Bracket	**Number of farms**	**Percentage of total** (%)	**Cumulative number of farms**	**Cumulative Percentage** (%)	**Sales** ($1,000)	**Percentage of total** (%)	**Cumulative Sales** ($1,000)	**Cumulative Percentage** (%)
Less than $1,000	30	19.2	30	19.2	17	0	17	0
$1,000 to $2,499	30	19.2	60	38.5	45	0	62	0
$2,500 to $4,999	22	14.1	82	52.6	77	0	139	0.7
$5,000 to $9,999	21	13.5	103	66.0	141	0.7	280	1.5
$10,000 to $19,999	12	7.7	115	73.7	-	-	280	1.5
$20,000 to $24,999	7	4.5	122	78.2	155	0.8	435	2.3
$25,000 to $39,999	2	1.3	124	79.5	-	-	435	2.3
$40,000 to $49,999	-	-	124	79.5	-	-	435	2.3
$50,000 to $99,999	9	5.8	133	85.3	642	3.4	1,077	5.7
$100,000 to $249,999	4	2.6	137	87.8	718	3.8	1,795	9.5
$250,000 to $499,999	11	7.1	148	94.9	4,029	21.3	5,824	30.7
$500,000 or more	8	5.1	156	100	13,127	69.3	18,951	100
Total	**156**				**18,951**			

When Do I Cull a Cow From My Cow-Calf Herd?

By Peter Callan (peter.callan@vt.edu), Extension Agent, Farm Business Management, Northern District

Culling decisions can significantly impact the bottom line for cow-calf producers. Many producers are not sure when they should cull a cow from their herds. Disposition, reproductive rate, feed costs, poor performance, lameness and undesirable udder traits are the important factors in making the decision to cull a cow from the herd.

As a former dairy farmer, I feel that animals with undesirable dispositions (high strung, easily excitable) are dangerous and should be immediately culled. These animals can easily cause injury to people and animals. Is it worth it for the owner and/or employees to risk getting injured by keeping this animal in the herd? Disposition is a heritable trait! Animals who do not respect electric and/or permanent fences can be a "major head ache" because they are constantly breaking out of pastures. These animals consume significant amounts of unproductive time repairing fences and chasing the animals to get them back into the pasture. The bottom line is that these animals should be culled ASAP from the herd.

One of the most important factors that impact the profitability in a cow calf operation is reproductive rate. A productive cow is expected to produce a calf at least once a year. Open (not pregnant) cows are a drain on resources. They consume feed, forage, and other resources without producing a marketable calf to contribute to expense payments. Cows that calve outside of a controlled calving season are also potential culls, particularly when feed and forage supplies are running short. Late calving cows should be examined closely as well, because they have less opportunity to breed back to stay within a controlled breeding season.

Farm management economists have estimated that feed costs are approximately $400/cow/year. Cows that are open at the end of the breeding season should be at the top of the cull list. Many producers have taken the position that "Well, if a cow does not get bred this year, I will keep her for another year and then see if we can get her bred. If I can not get her bred next year, then I will sell her." Can a producer afford to spend $400 to feed an open cow for a year in hopes that the cow will get pregnant the following year?

Cows exhibiting poor calf performance (bottom one-third of the herd for calf 205-day adjusted weaning weights) over the first and second calving seasons generally do not significantly improve performance in future calving seasons (third and subsequent calving seasons). Poor calf performance is usually the result of inferior genetics, poor dam milk production, calf sickness or a combination of these factors. Cows transmitting inferior genetics to their calves should be at the top of the list of animals to be culled. However, if poor calf performance is due in large part to calf sickness and not associated with the dam, then the dam may still have a productive future in the herd.

Herd records help provide the owner with production data that the owner may use to make informed culling decisions. Without production records, culling decisions are based on the owner's memory of the dam and conformation of the calf. As a result, owners may be selling offspring from their most productive animals due to the lack of records.

Undesirable conformation characteristics can lead to culling an animal. Poor feet and legs (broken down pasterns and lack of foot angle) cause lameness and reduced mobility which leads to reduced grazing. This results in decreased performance, decreased reproductive efficiency (less likely to show signs of estrus), weight loss and increased veterinary costs (foot rot). An udder that has a level floor with normal sized teats makes it easy for the calf to nurse. Cows with abnormal teat size (long balloon shaped teats) and/or a sloping udder floor tend to have pendulous udders. This makes it harder for the calf to nurse which may result in lower milk consumption and lower weaning weights.

The timing of selling a cull cow is a marketing decision. Cull cow price levels and seasonal trends should be taken into consideration when deciding when to sell cull cows. When cull cow prices are trending upward, it is often advantageous to wait to market cows if the increasing values can cover added feed expenses from holding over cull cows. If a producer has a thin cull cow and an abundant supply of grass, he may consider keeping the cow in order that the cow will gain weight and sell for a higher price. Conversely, if a producer is short of feed, the cull cow should be marked immediately once the cow has been determined open. When cull cow prices are trending downward, it is advisable to market cull cows in a timely manner before more money is spent on cow maintenance.

Cow culling strategies impact calf quality and quantity and profitability of the cow-calf operation. By making informed culling decisions, producers will be able to maintain and enhance herd performance and increase herd profitability.