

The MSU Beef Team Presents

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Funded by the Animal Industry Initiative

Cattle Call

December 2003

Happy Holidays

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2003 Income Tax Management for Beef Producers

Roger Betz, SW District Extension Farm Management Agent

With the unusual high beef prices this past fall, many beef producers hopefully will find themselves with higher taxable income than normal. Prudent tax management is important to maximize the net long-term dollars left in your pocket versus lost-to-income tax. The goal in the long run is to maximize true profit in the business and pass as many dollars as possible through the tax system at the lowest cost possible. The farm business using cash accounting for income tax has a great deal of flexibility in reported income within any one year. In addition, huge inventories of product can be produced but is not reported as taxable income until sold, giving a substantial tax delay opportunity. Various tools and strategies should be used.

The basic management guideline is to avoid wide fluctuations in taxable income because a relatively uniform income from year-to-year results in the lowest income tax and largest Homestead and Farmland Preservation Credits over time. With this year being high, you will probably want to reduce the net taxable income.

If your 2003 tax estimates indicate an excessively high year, jumping you into a higher than desired tax bracket, then consider the following strategies:

1. Best Return Investments: The extra income makes possible investing some of that money back into the beef operation to make capital improvements that will bring financial rewards in the future. Beef operators should create a list of items that need improving and updating. This list might include housing improvements or new machinery investments. Regular maintenance of buildings and equipment that went undone while beef prices were depressed can be rectified during this time of added income.

2. Pay Down Debt: Although not deductible, at least a portion of the extra income being received in 2003 ought to be applied to retiring debt. Of particular concern are high interest debts like credit cards or high cost loans. Perhaps the best money spent on debt may be re-financing high interest loans to reduce payments and utilize lower interest rates. A business analysis can determine if this is an area that needs to be addressed. One strategy is to reduce debt by at least the amount as your tax

Continued on page 2

depreciation each year.

3. The Section 179 (first year direct expense fast depreciation) deduction for capital purchases is \$100,000 in 2003, with the phase-out beginning at \$400,000 of qualified property placed in service. Where capital purchases have been made, or can be made, study the depreciation alternatives carefully. For purchases of new (not used) property, you are required to take an additional 30-50% first year depreciation unless you elect out of taking it.

4. Prepay items such as fertilizer, seed, chemicals, farm supplies, small tools, and repairs and pay off any unpaid bills by year end.

5. Pay in 2003 real estate taxes and other annual bills. (Insurance premiums, real estate rental for 2004 and interest cannot be paid in advance to obtain an earlier tax deduction.)

6. Watch the timing of sales of livestock and crops ready for market near year-end.

7. CCC loans can count as borrowed funds or as income if the appropriate forms are filed. Put crops under loan, don't count as income and use the cash to buy needed supplies and pay expenses.

8. Minor repairs and tools: Some expenses are deductible as current year business expenses even though not made every year. These include minor repairs on improvements and machinery, painting of buildings, purchase of small tools and supplies, and within limitations, cost of approved soil and water conservation expenses. Get these jobs done and paid for before year-end if you wish to reduce net income.

9. Pay your children wages for work actually performed for the farm. If the child is under 19 or regularly enrolled in school, they can earn any amount and the parent can still claim an exemption for them if the parents pay over half the child's support

10. Frequently unrecorded and forgotten expenses include:

1. Educational expenses including, magazine subscriptions, books, fees at extension or other agricultural organization meetings,
2. Travel expenses connected with your business.
3. Entertainment expenses when hosting others where the predominant purpose is the furthering of your farm business operation.

11. Give Some Away: Fortunately for charities, communities, and religious groups, we have a tax system that gives taxpayers credit for supporting and helping organizations. This support can be in the form of cash or non-cash gifts that can have a great impact on the organization and its mission of helping people. By giving a commodity rather than cash, the farm can gain an advantage. The commodity is not considered income to the farm and no charitable gift is deducted. However, this strategy saves taxes in the amount of the income tax bracket that the producer is in plus no social security tax is paid on the amount of income the sale of the commodity would have generated. The advantage is that it is more beneficial than to receive the income, pay taxes on the income, and give the gift as cash.

12. The farm income averaging provision (Schedule J) is permanent and negative taxable income and can be used from the three base years. Use the income averaging as a last resort as managing income with income expenses each year is usually more effective.

The tax management goal should not be to minimize the tax burden in any one year as this may lead to income in higher tax brackets in the future. Always show enough income to use up your "free money". Even in a low income year, plan to have enough income to use personal exemptions and the standard deduction. These

are not carried forward.

One should always try to have positive Schedule F income. A loss is carried forward after combined with other income on the 1040 versus on Schedule F. The result can be a loss one year (negative \$15,000) with a high profit the next (positive \$25,000). The social security tax is paid on the high year with none in the loss year. If income (\$15,000) was moved from the high year to low year (bring up to zero) then the social security tax in the low year would still be zero and the social security tax paid in the resulting lower high year would be paid on a much lower number (positive \$10,000 versus the \$25,000). ($15.3\% \times \$15,000 = \$2,295$ savings) For disability and other reasons, farmers should usually keep their earned income (schedule F) above the minimum for earning quarters (\$3,560/yr in 2003).

If taxable income is over \$58,000 married (\$40,250 single) and deductions include state taxes, accelerated depreciation and others, the Alternative Minimum Tax (AMT) may apply and must be calculated to see if it increases your income taxes.

One feature of the MSU TELFARM system helps producers with income tax management. TELFARM members are offered an individual and confidential tax strategy meeting during November and December. This session provides an opportunity for these producers to strategize on the most beneficial long-term income tax management plan.

Resources available to assist farm owners in managing extra income:

- Your local extension office
- www.irs.gov – web site for the Internal Revenue Service
- IRS Publication #225 Farmer's Tax Guide
- Michigan State Tel Farm at <http://www.canr.msu.edu/microtel/>
Go to Tax Information in the left bar and then select publication #2. **CC**

New MSU Educator will Support Livestock/Beef Producers in Michigan's Northern Counties

Norman Suverly was recently appointed as Alcona County's Extension director and the livestock and beef agent for the 20-



county Michigan State University North Region. As a member of the Michigan State University Extension Livestock Area of Expertise Team, Suverly will provide the region's livestock producers and industry representatives with educational resources, programs and help in developing action plans to improve production, profitability, livestock farm management and encourage environmentally sound operations. "I'm very excited to be here in Michigan working for MSU Extension on the beef team. I can already tell that I'll be working with a quality group of educators and researchers. What I'm looking forward to the most is meeting Michigan beef producers and listening to their thoughts and opinions on how MSU can continue to effectively serve the Michigan Beef industry."

Norman moved to Alcona County from Tonopah, Nevada with his wife Laura, one-year old son John, and another on the way. In

Nevada, he worked for almost three years as a county Extension Educator in the high desert country of Central Nevada. Reflecting back, Suverly noted some of the challenges of raising cattle in Nevada, “This is a 4-5 inch precipitation zone so water is a scarce resource and the cattlemen are highly, if not completely, dependent upon public grazing lands. General herd management has its obstacles when cows graze on year-round desert allotments and when a producer may only touch his cattle a couple of times a year.” Although not raised on a farm, Suverly has always been attracted to agriculture, “I caught the bovine bug by taking on various summer jobs on ranches and farms in Oregon where I was born and raised and became very interested in the science aspect of the industry. I received my Bachelor of Science degree in business management and animal sciences from Oregon State University and then continued my education with a Masters of Science from the same institution. I focused my research and education in grazing management of cool season forages, and optimal management of winter-feeding beef cattle. I also have a background in range management and take an interest in reproductive physiology of the beef cow.” Marketing, animal health, electronic ID, and record keeping are a few of the areas Suverly expects to spending time on in the near future.

Suverly can be reached by phone at his office (989) 724-6478, mobile (989) 464-0011 or email suverly@msu.edu. **CC**

New Livestock Agent in Western UP



Michigan State University (MSU) Extension has recently hired Frank Wardynski as County Extension Director for Ontonagon County and Livestock Agent for the Western UP. Frank will be responsible for the administration of the Ontonagon County Extension office. He will also work with regional Agriculture and Natural Resource agents, Ben Bartlett and Warren Schauer and with Western Upper Peninsula livestock producers. Other focus areas will be Community and Economic Development in Ontonagon County.

Wardynski is a former MSU Extension agent in Ionia County, before becoming a livestock producer in Ontonagon County and has previously served Ontonagon County MSU Extension three different times as temporary Agriculture and Natural Resource Agent. He has a Bachelor of Science Degree from Illinois State University and a Master of Science from Michigan State University. He and his wife Kathy have four children, Julie, R.J., Lori and Holly. Frank is presently on the Ontonagon Conservation District Board, the Western Upper Peninsula Livestock Cooperative Board, the Ontonagon County Fair Board, the Michigan Cattleman's Association Board, Smurfit-Stone Container Citizen's Advisory Council and is a volunteer hockey coach and 4-H leader.

Frank can be contacted at 906-884-4386 or e-mail wardynsf@msue.msu.edu

Getting You and Your Cow Ready For Winter

Ben Bartlett, DVM

AoE Livestock Agent, Upper Peninsula

1: Go look at the condition of your cows: What would be the average condition score of the 2 year olds going on their 2nd calf? Cows continue to grow until they are 7 years of age. Old cows out weight heifers by about 17% and will make it even tougher for those young cow to get to spring in good shape. Old cows, starting about age 11 are also getting smaller and so less competitive. Do your “disadvantaged” cows need some help getting through this winter? What is the average condition score of your “top of the peck order” cows?

2: Do an inventory of you hay/feed supply by pounds. The trouble with going by number of bales is that while it works from a historical perspective, “if I have 500 bales I know I can get to spring” it tells us nothing about how much we are feeding. Do this simple test to see how much hay you are “offering” you cows. Number of bales X weight divided by number of cows. For example: 3 round bales at 1000 pounds each for 35 cows for two days. (3 bales x 1000pounds = 3000 / 2 days = 1500 pound per day /35 cows = 43 pounds of hay offered per cow per day.) In this example either you have very big cows or are wasting hay. If you know the pounds of feed available you can plan out a least cost wintering program.

3: Winterize your cows- Step One: With cattle prices this high you need to know if you cow is pregnant so you can either plan for next year or cash in on this high market. There is no such thing as a “good open cow”.

4: Winterize your cows- Step Two: You need to treat for external parasites, lice and grubs at a minimum. If pasture was short last summer, give internal parasite control serious consideration. Younger animals will benefit more from internal parasite control than older cows.

5: Winterize your cows- Step Three: Booster vaccinate your cows per a vaccination program appropriate for your cow herd. This should probably include the respiratory viruses and Lepto for the cows. Give very serous consideration to giving your cows a scours vaccination so that they can pass on protection to their newborn calves next spring.

6: After you have reduced your cattle herd to just the workers, those pregnant or growing, it's time to put your housing and feeding plan together. The key point is to make a plan and then take action. You are shooting to have your mature cows with a minimum condition score of 5 and young cows a 6 at calving. The condition at calving has a tremendous impact on the ability of the cow to get pregnant again and the livability of the calf.

7: Grouping plan: At a minimum you need a group for the weaned calves, the heifers pregnant with their first calf, and the rest of the cow herd. The coming 2nd calf cows and older thin cows would ideally have their own group but if you are short of space/lots, start them in the cow group and about half way through winter,

Target Marketing

Mark Scott

MSU Extension Beef Specialist



sort them into the first calf heifer lot. The main point is to keep on eye on the condition of these challenged animals and sort them off as needed. If you don't sort them, they will not gain condition. If you try to avoid sorting by increasing the quantity and quality of the ration, only the big cows get bigger.

8: Feeding plan: Here is why the feed inventory is so important. By knowing the pounds of forage you have on hand, you calculate how much you need to feed without wasting feed. If you are short of quantity, you can compare options; buy hay, graze stalks, build fence, feed corn etc to stretch out your forage supply. If you are short of quality and or have some cows that need to gain condition, you can strategically purchase the right kind of feed, extra energy or protein, for the right group of cattle. The goal is to get the cows through winter in the desired condition for calving and then do it at the least cost possible. Let me repeat this, production first, then cut cost.

9: Housing/ Winter lots: Almost 100% of beef cows spend the winter outside with a minimum of shelter. All beef cattle can winter outside if they have protection from the wind and a bedded place to lay on. Wind protection and need for a place to rest besides the wet ground or mud is more important for young growing calves. Another consideration is the need to save a "clean" place for calving. The best idea is to winter in one location, move to a clean spot for calving, then move the newly calved cows and calves to a clean spot. I know it sounds like lots of "clean lots" but with some planning in the fall, it is possible. Clean lots are as important as a good vaccination program and clean lots are more cost effective than any 'better' antibiotic after they get sick.

10: Your preparation: You have some homework to do this winter. Most important is to keep an eye on the condition of your cows and feed and sort as needed. The next important thing is to do some pasture planning so you can keep high quality low cost pasture in front of your cattle as long as possible. And last but sure not least, is to get excited with the anticipation of a pasture full of new born, healthy calves that foretell of profitable fall sales. *CC*

In today's marketplace, signals are sent all the time from buyer to seller. These signals, if interpreted correctly, can provide you with a better understanding of what is needed in the marketplace. What signals are the major packers in the Eastern Corn Belt sending to those that produce cattle? Are there any similar signals being sent by the packers? Before we answer those questions, let's begin at a common starting point. There are 3 major packers (4 plants with >1,500 hd/d) in our region that harvest cattle: Tyson-IBP, Joslin, IL; Smithfield-Murco Foods, Plainwell, PA; Smithfield-Moyer Packing, Souderton, PA; Excel-Taylor Packing, Wyalusing, PA

Each packer will send a signal to the marketplace making it known what kind of cattle they want to harvest. These signals may be in the form of a live bid or premium/discount schedule, but they may also be in the form of formalized product specifications. These formalized product specifications are classified by the USDA as certified or process verified beef programs.

To date, there are 37 certified beef programs and four process-verified programs in the U.S. Currently of the 37 programs, there are six certified beef programs and no process-verified programs offered by or through the major packers within the Eastern Corn Belt. Table 1 lists the six certified programs available and their specifications. When you look at each of the six programs, certain specifications are common. These common specifications are:

- Steer or heifer carcasses
- Less than 2 inch neck hump height
- "A" maturity
- Medium or fine marbling texture
- No dark cutting characteristics
- No internal hemorrhages ("blood splash")

Four specifications that differentiate product are the animal's phenotype, genotype, quality grade, and yield grade. Let's take a more in depth look at each of these specifications.

The animal's phenotype was first used by the Certified Angus Beef (CAB) Program in 1978. The live animal specification is for the coat hair to be 51% solid black. What this specification is saying is that at least 51% of the hide has to have solid black hair roots. Hide colors such as blue roan, gray, and the like are not acceptable because of the mixed color pattern. Looking at the base of the hair is important because sun can bleach black hair the packing plant.

The only two programs that do not require a specific phenotype or genotype are IBP's Chairman's Reserve Beef and SYSCO Butcher's Block Reserve Beef. These two programs are open to any breed or hide color.

The next specification that helps to differentiate product is quality grade. Programs such as CAB, IBP's Chairman's Reserve Beef, SYSCO Butcher's Block Reserve Beef, and Mopac's Steakhouse Classic Angus require a minimum grade of Average Choice. Average Choice means that the maturity of the animal (lean and bone)

is less than 30 months of age and contains at least a modest degree of marbling. The remaining programs require a minimum grade of low Choice (SYSCO Butcher's Block Angus Beef and Tyson's Classic Angus Beef).

The last specification that may be different between the certified programs is yield grade. There are three programs that require the yield grade to be 3.9 or lower - CAB, SYSCO Butcher's Block Angus Beef and Reserve Beef. The remaining three programs have no yield grade requirement, which allows room for those carcasses that may grade 4.0 or higher.

Formalized specifications are fine to aim toward, but just because carcasses fall within the specifications doesn't necessarily mean that you are guaranteed a "premium." For example, if you produce a yield grade 4 carcass, you will be discounted if you sell on a grid or a packer may take into consideration the possibility of yield grade 4 carcasses when they bid on a live basis. Also, during certain times of the year, they may be more carcasses that meet these specifications, which will drive down potential premiums.

Our regional packers are sending similar signals among their certified beef programs. They are looking for high quality cattle that are for the most part 51% solid black. As beef producers, we need to take into consideration genetics, nutrition, health, weather, seasonality of the Choice-Select spread, live or base price, and the premium/discount schedule.

Hitting these target markets is not always easy. As a cattle feeder, you need to develop relationships with cow-calf producers that are targeting similar markets that are in line with the signals the packers are sending. Formalized specifications are not the only signals that packers send, but they do give us a blueprint for the type of cattle they want. **CC**

Table1: USDA's Certified Beef Programs*

Characteristic	Certified Angus Beef [†]	Tyson's Classic Angus Beef [†]	IBP [†] Chairman's Reserve Beef [†]	Mopac's Steakhouse Classic Angus [†]	SYSCO Butcher's Block Angus Beef [†]	SYSCO Butcher's Block Reserve Beef [†]
Packer Information						
Filling schedule as of 8/1/03	Tyson-IBP	Tyson-IBP	Tyson-IBP	Smithfield-Moyer	Smithfield-Moyer	Smithfield-Moyer
	Smithfield-Moyer					
	Excel-Taylor					
Live Requirements						
GLA-phenotype (51% black)	X	X		X	X	
GLA-genotype		Red Angus			Red Angus	
Quality Factors						
U.S. Prime	X		X	X	X	X
U.S. Choice	X	X	X	X	X	X
Marbling requirements	Modest ⁰⁰ or higher	Small ⁵⁰ to Moderate ⁹⁹	Modest ⁰⁰ or higher	Modest ⁰⁰ or higher	Small ⁰⁰ or higher	Modest ⁰⁰ or higher
Quality requirements	Average Choice or higher	Mid-Low Choice to High Choice	Average Choice or higher	Average Choice or higher	Low Choice or higher	Average Choice or higher
Yield Factors						
Yield grade	3.9 ^d or lower	3.9 or lower	3.9 or lower		3.9 or lower	3.9 or lower
USDA Information						
Schedule number	G1	G32	G35	G47	G7	G8
Initial release date	1978	Apr-99	Sep-99	Jun-01	Aug-00	Aug-00
USDA Certified	X	X	X	X	X	X

*Adapted from USDA's Comparison of Certified Beef Programs (<http://www.ams.usda.gov/lsg/certprog/speccomp.pdf>)

†-Characteristics that are common among all six programs are steer and heifer carcasses, "A" maturity, moderately thick or thicker muscling, no internal hemorrhages, no dark cutters, and a hump height or 2 inches or less.

a-Yield grade of 3.9 or lower, except carcasses evaluated after removal of all or part of the kidney, pelvic, and heart fat may not have a yield grader higher than 3.5

X-Indicates program requirement

Utilizing Heterosis¹

Harlan Ritchie

Distinguished Professor of Animal Science
Michigan State University

Crossbreeding provides us with two avenues for achieving genetic improvement. One is “breed complementarity” whereby the strong points of one or more breeds can be used to compensate for the weak points of another breed or breeds. Another avenue is “heterosis” (hybrid vigor), defined as the percent of superiority in a trait expressed in the progeny over the average of the parent breeds in the cross. The percent of heterosis tends to be inversely proportional to heritability. In highly heritable traits, like most carcass characteristics, heterosis is low (0-5%). In moderately heritable traits, like growth traits, it is medium (5-10%), and in lowly heritable traits like reproductive and survival traits it is high (10-15%). As animals or breeds in a cross become genetically more divergent or unlike, heterosis is usually higher. Contrary to popular belief, when bloodlines within a breed are crossed, very little if any, heterosis is expressed.

Heterosis is classified as either “individual” or “maternal.” Individual is that expressed by the crossbred calf; maternal is that expressed by the crossbred cow. USDA researchers measured individual heterosis by comparing crossbred calves against straightbred calves, both of which were raised by straightbred cows. The percent increase in lb calf weaned/cow exposed (a good measure of cow herd efficiency) due to individual heterosis was 8.5%. Effects of maternal heterosis were measured by comparing crossbred cows against straightbred cows, both of which were raising crossbred calves. The increase in lb calf weaned/cow exposed was 14.8%. The combined effects of individual and maternal heterosis (crossbred cows raising crossbred calves) was a dramatic 23.3% increase in lb calf weaned/cow exposed compared to straightbred cows raising straightbred calves. We can see, therefore, that about two-thirds of total heterosis was due to maternal and one-third to individual heterosis.

Montana researchers recently put a dollar value on maternal heterosis. They reported that crossbred cows return \$50 to \$70 more per year than purebred cows. If the average cow stays in the herd for 6 years, the advantage for a crossbred cow would range from \$300 to \$420 over her lifetime. However, research has shown that crossbred cows stay in the herd longer than straightbreds, indicating that lifetime returns could be even greater.

Over the years, well-executed rotational crossbreeding systems have been effective, but cumbersome to manage, especially in smaller herds and in intensive rotational grazing systems. Recently, there has been a trend for more commercial producers to purchase rather than raise replacement females. If one can economically purchase F₁ crossbred females and mate them to a terminal breed of sire, the expected increase in lb calf weaned/cow exposed can be as much as 25-28% over that of straightbreeding. Based on current calf prices, the increase in annual return per cow would be \$100 or more.

Another means of capturing a significant amount of heterosis is to simply rotate unrelated F₁ hybrid bulls composed of the same two

breeds (A·B « A·B). This can result in a 12% increase in lb calf/cow exposed, worth about \$50 per cow on a \$95 calf market with a \$7/cwt price slide. Rotating F₁ bulls that have one breed in common (A·B « A·C) can result in a 16% increase in lb calf/cow exposed, worth an additional \$65 return/cow. Rotating F₁ bulls that have no breeds in common can increase lb calf/cow exposed by 86 lb, worth an additional \$76 return/cow.

Long-term data from U.S. MARC has shown that, for economically important traits controlled by numerous genes (quantitative traits), the amount of variation in progeny is similar for hybrids/composites and for the contributing pure breeds. For qualitative traits that are controlled by only one or two genes (e.g., color, horns, scurs, etc.), hybrids/composites may vary considerably more in such traits than purebreds, unless these traits are fixed in the contributing parent breeds (e.g., polled, black, non-spotted, etc.).

In summary, Dave Daley, California seedstock breeder, said it well when he stated, “The case for crossbreeding is irrefutable given the economic advantage of hybrid vigor and the ability to precisely meet market targets through breed complementarity.” Also, a well-known commercial producer recently wrote, “I’m occasionally lulled into thinking about abandoning crossbreeding, but the overwhelming evidence favoring use of the crossbred cow to harvest the considerable economic benefits of maternal heterosis quickly dispels the notion.”

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Research Round-up

Differences in Milk EPD Were Reflective of Differences In Weaning Weight EPD

A large five-state, five-year study was conducted to validate the hypothesis that milk EPD truly reflects differences in weaning weight due to milk. Cows were maintained at six different locations representing relatively diverse environments throughout the southeastern quadrant of the U.S. Twenty-four Angus sires were selected for either low or high milk EPD, but with similar growth EPDs, and mated to Angus cows. The average spread in milk EPD between the low and high lines was 39 lb (-13 to +26). Lactation records for 192 daughters were used to evaluate 12-hour milk yield and weaning weight of progeny. The correlation between sires milk EPD and 12-hour milk yield was moderate to high (0.56). The difference between lines for 12 hour milk yield was 1.45 lb. The difference between low and high lines in calf weaning weight was 34 lb, which compared favorably with the spread between lines in milk EPD (39 lb). There was no statistical interaction between genetic line and location, which means that sires tended to rank similarly within each location. When milk EPDs was first published in the 1980s, there was considerable skepticism among beef producers. However, this study, along with previous studies, indicates that differences in milk EPD are reflective of differences in weaning weight between progeny (Baker et al. 2003. J. Anim. Sci. 81:1406).

Finishing Cull Beef Cows on a High-Grain Diet

Previous research has shown that feeding cull cows a high-energy diet for 60 to 100 days can be profitable depending upon the cost of grain in relationship to the price of cows at the end of the feeding period. In this Montana study, cull beef cows were allotted to a control group (no implant) and a group that was implanted with Synovex-Plus.® The objective was to determine the effects of implant, initial body weight (BW), and initial body condition score (BCS) on feedlot performance and carcass characteristics. Cows were fed 90 days on a high-energy, 80-85% concentrate diet.

- Increased initial BW was associated with increases in final BW, hot carcass weight, ribeye area, and numerical yield grade. Average daily gain (ADG) and backfat were not affected by initial BW.

- Initial BCS had no effect on any feedlot or carcass trait except for an increase in backfat.

- Implant significantly affected all feedlot and carcass characteristics except for backfat. Implanted cows had 0.48 lb/d greater ADG, 40 lb greater final BW, 40 lb greater carcass weight, 1.3 sq. in. larger ribeye area, 0.27 increase in marbling score, and 0.24 numerically lower yield grade.

The authors concluded that feeding cull cows for a period of time before marketing can enhance carcass quality and may improve profitability. However, the cost of gain may often be greater than ultimate sale price of the cows. They added that it is important to consider seasonality of cull cow prices and the price differential between cull cow slaughter grades. In this study, implanting clearly improved feedlot performance and carcass characteristics (Funston et al. 2003. Prof. Anim. Sci. 19:233).

Stockpiled Forage or Limit-Fed Corn Were Cost-Effective Alternatives to Hay for Gestating and Lactating Beef Cows

Previous research has indicated that grain can be successfully used as a partial substitute for hay for wintering beef cows when the relative costs of the two feedstuffs are favorable. Ohio State Univ. workers con-

ducted two experiments to compare the efficacy of three different wintering strategies: 1) stockpiled orchardgrass pasture set aside in late August; 2) limit-feeding approximately 12.8 lb whole corn, 2.4 lb pelleted supplement, and 2.6 lb hay daily; 3) ad libitum feeding of round-baled orchardgrass hay. When weather conditions were extreme, cows grazing stockpiled orchardgrass were limit-fed a grain-based diet. In Exp. 1, cows were wintered for 112 days during mid- to late-gestation (Nov. to Feb.). Cows in Exp. 2 were fed for 98 days during late gestation and early lactation (Jan. to Apr.). There were some differences among treatments in both experiments for postcalving cow weights and body condition scores, but there were no significant differences in calving date, calf birth weight, calf weaning weight, or conception rate. Feed costs were calculated using the following prices: corn, \$2.00/bu; hay, \$80/ton; pasture costs based on cow weight, average price/ton and pasture quality factor. In Exp. 1, feed costs per cow for the three treatments were \$94, \$94, and \$180 for pasture, limit-fed corn and hay, respectively. In Exp. 2, feed costs were \$90, \$87, and \$97, respectively. These results suggested that selection among these energy sources can be made based on economics and that feed costs to winter beef cows can be reduced by as much as 50% when corn is used as an alternative for hay. Furthermore, putting cows on stockpiled forage can reduce feed costs 10 to 50% compared to ad libitum hay. The authors concluded that corn-based diets can potentially be used as an emergency winter feed or as a supplemental energy source if stockpiled forage does not meet cow's requirements, or if a producer's hay supplies are depleted (Schoonmaker et al. 2003. J. Anim. Sci. 81:1099).

Impact of Milk Production Potential on Forage Dry Matter Intake During Late Gestation, and Early and Late Lactation

Researchers at Oklahoma State Univ. investigated the influence of milk production potential on forage dry matter intake (DMI) of Brangus cows during late gestation (avg. 48 days prepartum), early lactation (avg. 60 days postpartum), and late lactation (avg. 162 days postpartum). One-half of the cows were sired by high-milk EPD bulls and one-half by low-milk EPD bulls. Average EPDs for milk were approximately +10.2 for the high bulls and -12.2 for the low bulls. The diet consisted of ad libitum access to low-quality hay (5.3% CP) plus supplemental cottonseed meal to

ensure adequate degradable intake protein. Actual milk production was estimated during each of the two lactation periods.

- During late gestation, forage DMI was not influenced by milk EPD.
- During early lactation, high-milk EPD cows produced significantly more milk and consumed 8% more forage DM than low-milk EPD cows.
- During late lactation, high-milk EPD cows produced more milk than low-milk EPD cows, but the difference was not statistically significant. The same was true for forage DMI.
- Each pound increase in milk was associated with a 0.33- and 0.37-lb increase in forage DMI during early and late lactation, respectively.

The authors concluded that under the conditions of this study, selecting cows for increased milk production within a breed did not affect forage DMI during late gestation. However, such selection did increase forage DMI during lactation, primarily in early lactation (Johnson et al. 2003. J. Anim. Sci. 81:1837).

Meeting Announcement

The Michigan Cattlemen's Association

Annual Meeting

Comfort Inn
Mt. Pleasant, MI
January 23 and 24, 2004

For more information;
contact MCA
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