



Master Cattleman Quarterly

Oklahoma State University

A Hidden Tax Issue for 2015

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2014 was a banner year for cattle producers of every kind. Record high prices combined with drought relief payments left a cash surplus for many producers. This issue led to some tax management strategies being put in place that most livestock operators had not had to consider in recent years. Unfortunately, the drought relief payments were taxable. Depending on how we handled our tax situation last year, we may need to pay special attention to what is coming in 2015.

Two situations that may require some 2015 attention.

- 1) If our typical operating practice is to sell calves in the fall of the year and we pushed that set into 2015, then we did not “recognize” that extra income in 2014. We simply adjusted the income stream to benefit immediate taxable income. In 2015, if we return to normal operating practice, selling calves in the fall, we will have higher than typical income to deal with again since two groups of calves were sold in the same tax year.
- 2) Another positive for producers in 2014 was moderate feed prices. If a producer decided to “lock in” a price of feed and prepay expenses for 2015, then we have reduced expenses in 2015, also resulting in higher taxable income.

In either case, our action last year may have dictated an action this year. The first example might encourage you to push sales forward again. The second example could leave a producer needing to take an action to level the 2015 income. A valid business purpose is required for prepaid expenses and doing this again would simply push this issue to 2016. Both of these actions have an impact on farm cash flow. Pushing livestock sales forward will reduce cash available in the short term. Pre-paying feed or expenses will require a cash outflow that may not be available in the coming year. Calf prices have retreated in 2015 from the record fall 2014 highs. Yet, cash returns to cow/calf producers are still well above historic averages.

Keep in mind that paying a little tax is not always a bad thing. Generally speaking a tax burden will only show itself when we have had a good year and should have the ability to cover it. Taking care of it now may ease the future management burdens and allow us to make the best farm management decision later. Two great tax resources for producers are the farm related tax items found on the website www.ruraltax.org and IRS Publication 225 (Farmer’s Tax Guide). It is important to discuss tax management with your tax advisor to make sound tax management decisions.

What’s Happening With Your Farm/Ranch Finances?

Damona Doye, Farm Management Specialist

With changing cattle markets, an economic downturn in the state, and tax time approaching, it may be time to assess your farm/ranch business financial position and performance and think about what is likely to happen this next year. A first step is to look at

cash flow trends for recent years, say the last 5 years. A second step is to look at what is happening to the balance sheet. Finally, a look at family living expenses and off-farm income may be in order.

Vol. 29 Dec. 2015

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What's Happening With Your Farm/Ranch Finances? (cont.)

Cash Flow

Ideally, your recordkeeping system allows you to easily generate cash flow summaries by year. If not, you can lay out your tax returns side by side or transfer the numbers to a worksheet. Has gross income been increasing? If so, is it likely to continue or has the recent history been distorted by high cattle prices and or LFP payments? Have total expenses been increasing? Are there one or two culprit categories that are contributing to the increase and are they expected to continue? Could changes in management practices rein in those expenses? High depreciation expenses typically indicate the purchase of new buildings, machinery, equipment, vehicles, and breeding livestock. This expense can be lowered by replacing these items less frequently. Very low or no depreciation expense may signal that little or no reinvestment in the farm is taking place and that large outlays may be necessary in the future, either in repairs or purchases. If repairs are a large portion of the total expense, consider the purchase of new (or at least different) machinery and equipment or custom hiring work done.

The interest expense ratio (interest expense/gross income) indicates the proportion of total income committed to interest payments. Farm operations are considered more financially vulnerable once the ratio is 15 percent or higher.

To survive, the farm business must show a profit most years unless substantial off-farm equity or income is available to subsidize the operation. Consistent losses suggest that the manager's skills and talents might be better suited to some other enterprise. Losses for tax purposes may or may not be associated with profitability in the long term. If you want to understand whether your farm is profitable, you'll have to go the extra step to develop an accrual-adjusted income statement.

Balance Sheet

Are total debts increasing over time? If so, is this a planned event, for instance, because debt is being used to expand the business? If not, rising debt may signal increasing financial problems, particularly if it is operating debt or lines of credit that are increasing. Addressing problems early on is key to avoiding compounding financial problems. A one-time increase in debt in five years may not be a problem, but multiple years of increases should be a

cause for concern. If the credit line is not being paid off during the year or credit card debt is accumulating, taking steps to correct financial problems is called for. Credit cards are an expensive form of debt and should be used primarily for convenience in payment, not to finance farm or personal assets or family living expenses.

Ideally, asset and debt figures should come from statements developed at the same time each year, such as January 1. Assets should be valued consistently using either cost or market valuation techniques. Cost-basis valuations will provide more meaningful comparisons for the farm over time. In a profitable business, the value of assets calculated on a cost-basis are expected to increase over time if profits are reinvested in the business and not withdrawn for non-farm use.

The debt to asset ratio indicates the proportion of total assets owed to creditors. The higher the ratio, the greater financial risk the business faces. Beginning operations that are financed through borrowing will have higher debt to asset ratios than established operations.

What is happening to total equity, that is, the owner's claim to assets? In a business where profits are reinvested over time, total equity should increase.

Family Living Expenses and Off-farm Income

During times of high farm income, it is easy for family living expenses to creep up. It is much more difficult to cut back on spending once the family becomes used to having more disposable income. Still, it may be a necessary evil, particularly if off-farm income has been reduced because of job changes or declining royalty income.

Use your financial records to assess whether your business and personal expenses are in line with your income and moving you toward your financial goals. For more information and step-by-step guidance in developing farm financial statements and analysis, see OSU Fact Sheets AGEC-751, AGEC-752, AGEC-753, and AGEC-791 plus AGEC-238, Farm and Ranch Financial Trends Worksheet on <http://pods.dasnr.okstate.edu>. For instructions on using commercial software for farm records, check out our website, "Quicken for Farm/Ranch Financial Records", www.agecon.okstate.edu/quicken. For individual assistance in farm financial planning, contact IFMAPS at 1-800-522-3755.

Oklahoma ARC-Co Payments for 2014/2015 Crop Year

Eric DeVuyst, Brian Whitacre, OSU Ag Economics Specialists and Meagan Rhodes, Graduate Research Assistant

USDA recently released information on the 2014 Agricultural Risk Coverage-County (ARC-Co) payments. The calculation for payments is based on historical county yields and national marketing-year-average (MYA) prices in comparison to 2014 county-level yields and MYA price. The steps for calculating these payments are outlined below.

Step 1: Calculate Olympic-average historical county yield. The five-year yield history (2009-2013) is averaged by discarding the high and low yields and averaging the remaining three years' yields. This average is called the benchmark yield.

Step 2: Calculate the Olympic-average MYA historical price. The five-year MYA price history (2009-2013) is averaged by discarding the high and low prices and averaging the remaining three years' prices. The average is called the benchmark price.

Step 3: Calculate the benchmark revenue for a county by multiplying benchmark yield and benchmark price.

Step 4: Calculate revenue guarantee as benchmark revenue times 0.86.

Step 5: Calculate 2014 actual county-level revenue as 2014 county-level yield times 2014 MYA price.

Step 6: Calculate 2014 formula payment rate as revenue guarantee minus 2014 actual county-level revenue. If negative, then formula payment rate is zero.

Step 7: Calculate 2014 payment rate as the lesser of 0.1 times benchmark revenue and the formula payment rate. In other words, the payment cannot exceed 10% of the benchmark revenue.

USDA Farm Service Agency has provided a spreadsheet with historical data, calculations, and payment levels at http://www.fsa.usda.gov/programs-and-services/arcplc_program/index. If producers have questions about their payments, your local FSA office can provide further information. Note that 2014 payments are subject to budget sequestration cuts. FSA can advise on how these cuts apply to your farm's program payments.

ARC-Co payments for corn are concentrated in the Panhandle and Western Oklahoma. Historical yields in

these counties are typically higher than in other Oklahoma counties. There are two drivers of these payments. The 2014 benchmark price for corn is \$5.29 per bushel, but the 2014 MYA price is \$3.70, or about 69.9% of the benchmark price. So, county-level yields less than 123% of benchmark yields would trigger a payment. In other words, counties could have yields that exceed their Olympic-average yields by less than 23% and have a payment triggered. Custer County, for example, had a benchmark yield of 42 bushels and a 2014 yield of 51 bushels, or 21% over benchmark. The result is a payment of \$2.37. (At a yield of 51.7 bushels or greater, the payment would have been zero.)

Oklahoma grain sorghum 2014 ARC-Co payments are clustered in the Panhandle and Southcentral counties. The benchmark price is \$5.10 and the 2014 MYA price is \$4.03, or about 79% of the benchmark price. As a result, any counties with 2014 yields less than 108% of the benchmark yield receive ARC-Co payments. Marshall County, for example, has a 2014 benchmark yield of 42 bushels for grain sorghum and an actual 2014 yield of 45 bushels, or 107% of the benchmark. So, a small payment is made. (A county yield of 45.4 bushels or greater would have resulted in zero payment for Marshall County.)

The 2014 benchmark price for soybeans is \$12.27 and the 2014 MYA price is \$10.10, or about 82.3% of the benchmark price. So, any 2014 county-level yield of equal to or less than 104.5% of its benchmark yield receives a payment. Alfalfa County, for example, has a 2014 benchmark yield of 20 bushels and an actual 2014 yield of 20 bushels, resulting in a payment of \$9.04 per acre. (A 2014 county yield of 20.8 bushels or greater would have resulted in a payment of zero dollars.)

The 2014 benchmark price for wheat is \$6.60 and the 2014 MYA price is \$5.99, or about 90.8% of the benchmark price. So, any 2014 county-level yield equal to or less than 95% of its benchmark yield receives a payment. Pawnee County, for example, has a 2014 benchmark yield of 23 bushels and an actual 2014 yield of 21 bushels, resulting in a payment of \$4.76 per acre. (A 2014 county yield of 22 bushels or greater would have resulted in a payment of zero dollars.)

No Bull: Castrating Calves Can Improve Your Bottom Line

Kellie Curry Raper, Associate Professor, Amy Boline, Graduate Research Assistant & Derrell Peel, Breedlove Chair & Professor

Castration of bull calves prior to marketing has long been encouraged by extension educators. In fact, it was part of a discussion in this newsletter earlier this year. Why do we keep talking about it? For one, too many male calves still come to market as bulls. A quick look at numbers collected by OSU Extension specialists indicate that, in 2014, 7.1% of the lots coming through the livestock auction at selected weaned and feeder calf sales were lots containing bulls. That number was 10.3% in 2013. The state average is likely much higher, as these numbers represent sale dates where there are typically greater numbers of value-added cattle going through the ring. Results from the 2010 Oklahoma Beef Management and Marketing survey reflect that 28% of producers who responded to the survey do not castrate bull calves prior to marketing. Data from the 2008

National Animal Health Monitoring System report that 95% of operations with more than 200 head castrate bull calves prior to weaning, while only 50% of operations with less than 50 head do so. Regionally, the South Central U.S. has the lowest rate of operations that castrate prior to weaning at 44%.

Why does it matter? From a health perspective, calves that are castrated at less than three months old experience lower stress levels, less sickness, and lower rates of death loss (Campbell). From an animal welfare perspective, older calves experience more stress at castration and show more aggressive behavior while uncastrated, implying greater risks of injury for other animals and for humans. From a beef quality perspective, calves that weigh more than 500

Adopter Identified Incentives for Castration of Bull Calves Prior to Marketing
Oklahoma Beef Management and Marketing Survey 2010

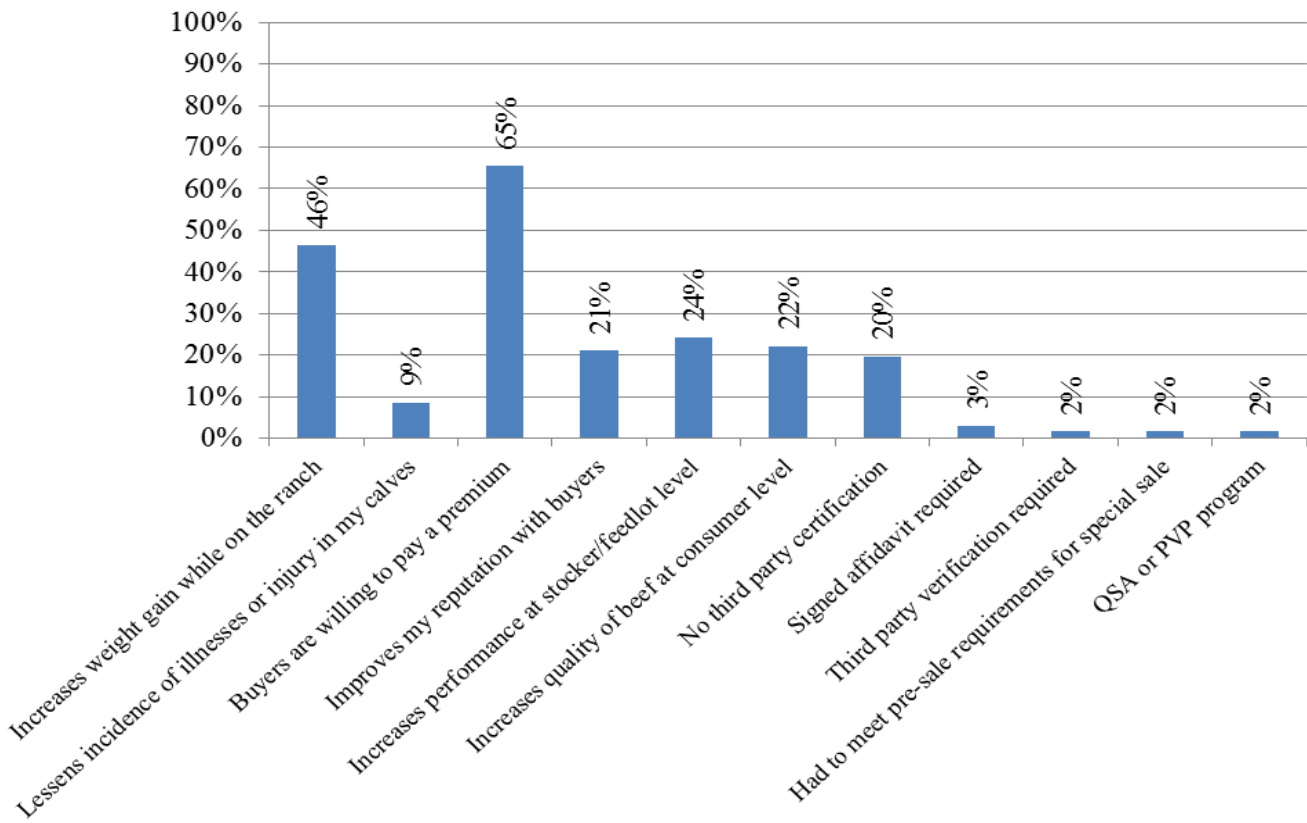


Figure 1. Adopter Identified Incentives for Castration Adoption

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pounds at castration will have less marbling and lower tenderness ratings. From an economic perspective, bull calves castrated past 3 months of age will weigh 20 pounds less, on average, at slaughter and will be in the feedlot for 12 additional days relative to a calf castrated at less than 3 months of age. That results in a higher cost of gain at the feedlot. And finally, from a cow-calf operator's perspective, bull calves are discounted at the sale barn, impacting your bottom line. Williams, et al. (2012) found that bull

calves were discounted at \$5.77/cwt at feeder cattle auctions in Oklahoma in 2010. That is a revenue difference of \$28.88 between a 500 pound bull calf and a 500 pound steer calf, conservatively speaking. Many other studies find similar discounts, typically in the \$5/cwt to \$10/cwt range.

The Oklahoma Beef Management and Marketing Survey (2010) asked producers who castrate bull calves before marketing why they do so. Producers were asked to select

Non-Adopter Identified Constraints to Castration of Bull Calves Prior to Marketing
 2010 Oklahoma Beef Management and Marketing Survey

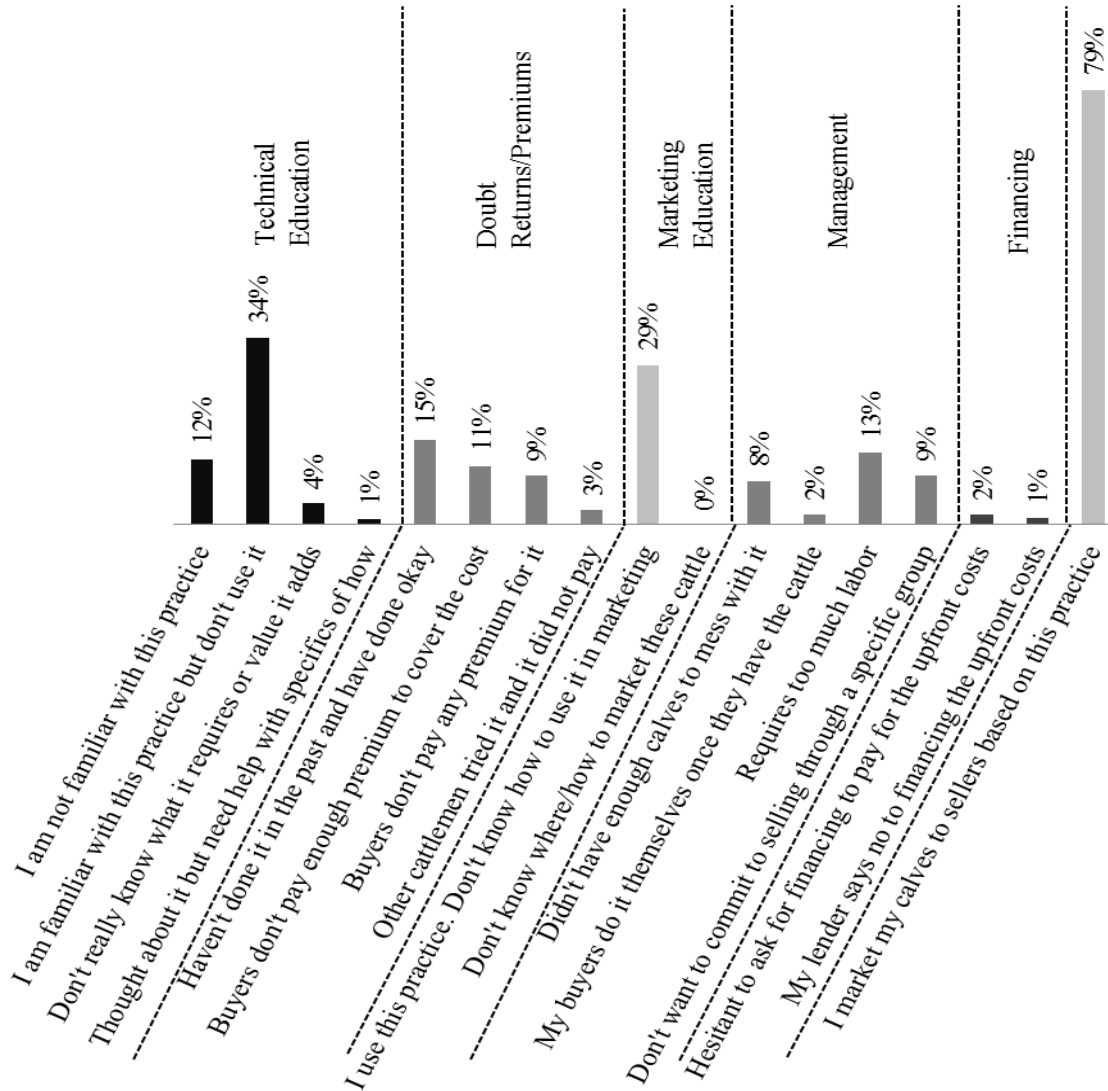


Figure 2. Constraints to Castration as Identified by Non-Adopters

No Bull: Castrating Calves Can Improve Your Bottom Line (cont.)

all responses that were appropriate for their operation. Figure 1 reports that the top incentive, at 65%, is the belief that buyers pay a premium for castrated calves. At a close second, 46% believe it increases weight gain while calves are on the ranch. Other primary incentives for castration identified by producers include reputation with buyers (21%), increased performance at the stocker or feedlot level (24%), and increased beef quality at the consumer level (22%). Twenty percent choose to castrate as a way to capture value without third party certification.

Figure 2 reports the responses of non-adopting producers when asked to identify reasons for not castrating bull calves prior to marketing in their operations. Again, producers could choose to respond with more than one reason. Constraints listed most often fall into the categories of (1) a lack of technical education, (2) doubt of returns and/or premiums and (3) a lack of marketing education. In layman's terms, producers citing a lack of technical education do not know how to castrate bull calves or are not comfortable

with their skill level, while those citing a lack of marketing education are uncertain about where to market calves to take advantage of premiums.

If you fall into the non-adopter category regarding castration of bull calves prior to marketing because of similar constraints, contact your county Extension educator for resources. It can increase your bottom line – no bull.

Campbell, Stacy. "When to Castrate Calves Could Affect Weight Later On." <http://beef2live.com/story-castrate-calves-affect-weight-later-0-112823>. Published November 10, 2015.

Williams, Galen S., Kellie Curry Raper, Eric A. DeVuyst, Derrell Peel, and Doug McKinney. "Determinants of Price Differentials in Oklahoma Value-Added Feeder Cattle Auctions." *Journal of Agricultural and Resource Economics*, Volume 37-1 (April 2012):115-128.

Bull Investment Cost Calculator

Roger Sahs, OSU Extension Specialist

In most cases, the decision to purchase a herd bull relates to a capital investment that is expected to pay out over a productive life of 3 to 5 years. While the purchase price for a bull may seem expensive, the investment in a higher priced bull can contribute to improved production of market-preferred calves and higher weaning weights. Thus the investment may be justified, particularly when viewed in relation to the number of calves the bull can sire over his useful life. And in many cases, the salvage value (the net sales value when the bull is culled) helps offset a substantial portion of bull purchase cost, which reduces the total depreciation cost of a bull.


The Bull Investment Cost Calculator helps producers estimate the cost of owning a bull with respect to both cost and production. Annual bull cost is calculated and prorated on a: 1) per cow basis, 2) per calf weaned basis and 3) on a hundredweight (cwt.) per calf weaned basis. The decision tool also assesses bull cost per cow as the number of cows serviced changes. The change in weaning weight required to pay for a higher priced bull is also estimated. This pro-

vides insight into what the market would have to pay to justify paying more for a herd bull. Keep in mind that this analysis does not address any genetic improvements of replacement heifers retained in the herd which might also add value.

The example shown here illustrates a recent calculation showing weaned calf prices at \$2 per pound during the bull's useful life. The estimated total cost of keeping a \$4,000 breeding bull is over \$1,100 per year. The results show that the annual bull cost is \$46 per exposed cow or \$10 per cwt. of calf weaned. These are useful comparisons if the producer is considering leasing bulls or artificial insemination as an alternative to bull ownership. Of course, calf prices may not remain as high as projected in the illustration and the user should also allow for other risk realities like a lower weaned calf crop percentage or replacing feed equipment damaged by the bull.


The Bull Investment Cost Calculator and additional OSU software tools may be accessed online at: <http://beefextension.com>

Bull Investment Cost Calculator (cont.)



Bull Investment Cost Calculator

Texas Agrilife Extension and Oklahoma State University



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Update by
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Purchase Price of Bull	\$4,000		
Useful Life (Years)	4		
	Wt. Lb./Hd.	\$/cwt	\$/Head
Bull Salvage Value	2,000	\$95.00	\$1,900
Interest Rate Used for Opportunity Cost	3.0	%	
Average Investment for Bull			\$2,950

Cows Exposed to Bull Annually	25		
Weaned Calf Crop %	88.0	%	
Average Weaning Weight	525	Lb.	
Weaned Calf Price	\$200	\$/cwt	
Calves Weaned Per Year	22		
Calves Weaned During Useful Life of Bull	88		
Pounds Weaned per Exposed Female	462 Lb.		\$1,050.00

Operating Cost Item	Annual Bull Cost	Annual Bull Cost per Cow Exposed	Annual Bull Cost per Calf Weaned	Annual Bull Cost per Cwt. Weaned	Percent of Total Cost
Grazing and Supplemental Feed	\$450.00	\$18.00	\$20.45	\$3.90	
Veterinary Medicine	\$35.00	\$1.40	\$1.59	\$0.30	
Other Cost	\$0.00	\$0.00	\$0.00	\$0.00	
Annual Interest on 1/2 of Operating Cost	\$7.28	\$0.29	\$0.33	\$0.06	
Annual Operating Cost	\$492.28	\$19.69	\$22.37	\$4.26	43%
Ownership Cost					
Depreciation	\$525.00	\$21.00	\$23.86	\$4.54	
Average Annual Interest Cost*	\$88.50	\$3.54	\$4.02	\$0.77	
Death Loss (% of Purchase Cost)	1.0	\$40.00	\$1.60	\$1.82	\$0.35
Annual Ownership Cost	\$653.50	\$26.14	\$29.70	\$5.66	57%
Annual Total Cost	\$1,145.78	\$45.83	\$52.07	\$9.92	



Beef Cattle Manual, 7th edition is now available!

It's here... a new Beef Cattle Manual! The new edition contains 45 chapters addressing beef nutrition, breeding, herd health, forage, environment and economics. A chapter on fire plus additional chapters on beef cattle breeding, including one on genomics, are new to this volume. Cost of the manual is \$25. Order through your local OSU Extension Office or online at <http://agecon.okstate.edu/cattleman/order.asp> (shipping cost will be added).

The Beef Cattle Manual is a key information resource for not only beef cattle producers, but also agriculture stu-

dents, educators, veterinarians and many others associated with the beef cattle industry. Participants in the OSU Master Cattleman Program use the manual as their educational curriculum and for the producer certification process (see agecon.okstate.edu/cattleman for more information).

Note that OSU will be closed December 24– January 3 so any orders received after December 22 may not be shipped until January 4.



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