

**Barriers to Entry for Young and Beginning
Cattle Producers in Oklahoma**

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Objectives

The overall objective of this research is to determine the barriers to entry by young, aspiring beginning cattle producers in Oklahoma. The specific objectives of this research on beginning cattle operators are:

1. To identify the start-up capital requirements and potential debt obligations using different means of financing.
2. To evaluate the effect of differing herd size and off-farm income scenarios in meeting cash flow obligations.

Background

There has been significant debate regarding the aging farming population in America and the implications of this trend. USDA data from 2011 indicates that 37% of all cattle farms in the U.S. are operated by producers over the age of 65. An additional 29% are operated by producers over the age of 55. Oklahoma statistics for farm numbers by age of operator and sales class are shown in Figure 1. Roughly 6% of all farm operators in Oklahoma are under the age of 35 while 33% of operators are over the age of 65 (USDA/NASS 2007). Further analysis shows that a large portion of these farms have very limited sales and likely reflect small, hobby farms for residential purposes. Although the 65 and over age category account for the highest percentage of total farms, they do not account for majority of the sales as seen in Figure 2. This shows the tendency for older producers to begin to disinvest in the operation and to not engage in as intensive activities as the operator reaches a certain age (Mishra, Williams, Wilson 2009).

The average age of the primary farm operator has risen from 50.3 in 1978 to 57.1 in 2007. This rising age of the farmer has been a trend for a considerable time, so why the sudden concern? Dr. Derrell Peel recently referred to the issue as the “demographic cliff” (Oklahoma

Farm Report). The percent of sales accounted for by operators over the age of 65 has steadily increased over the last 25 years while the sales accounted for by operators under the age of 35 has declined as seen in Figures 3 and 4. What challenges and barriers to entry do young producers face as they try to enter the industry? This research focuses particularly on a beginning cow-calf producer in Oklahoma trying to enter the industry with varying forage bases, herd sizes, financing terms, and off-farm income.

Characteristics of Beginning Farmers

The USDA's definition of a new and beginning farmer/rancher (NBFR) is a principal operator of a farm who has 10 or fewer years of experience in operating a farm. Beginning farmers operate approximately one-fifth of all farms in the U.S. and account for 10 percent of the value of U.S. agricultural production. Beginning farms are on average considerably smaller than established farms, averaging 174 acres and 461 acres respectively. Beginning farms, like established farms, were more likely to specialize in beef cattle operations than any other commodity group (Ahearn and Newton 2009).

Intuitively, beginning farmers are more likely to be younger than established farmers. However, currently 32 percent of beginning farmers are over the age of 55 and only 14% are under the age of 35 (Ahearn and Newton 2009). This indicates possible concern as it is most likely an indication of two trends: 1) The farm transition process is taking longer, as the family farm is passed from one generation to the other 2) A disruption of the start-small while young mentality that has traditionally been the primary mode of entry for beginning farmers.

Beginning farmers are less likely to rent farmland than established farmers (Ahearn and Newton 2009). The most common way that beginning farmers acquire land is to purchase it from nonrelatives rather than inherit it (Ahearn and Newton 2009). This statistic is largely indicative

of the small lifestyle farms that are meant for residential purposes rather than farms started with the intent of developing into a commercial operation. In addition, larger, more productive farms will have a tendency to have intrafamily succession plans (Mishra and El-Osta 2007). This likely indicates the bimodal nature of farm size in the U.S. as larger family farms will have succession plans while there will be a large portion of smaller farms continued to be purchased for residential and hobby purposes.

Beginning farmers, on average, earn less of their income from the farm and more from off farm sources (Aheran and Newton 2009.) The discussion of off-farm income is tied directly to the discussion of young and beginning farmers. According to the most recent Census of Agriculture (2007), in Oklahoma 88% of all farmers under the age of 35 work at least some off the farm. Of those who do work off the farm, the majority of the operators indicated they work at least 200 days away from the farm. In 2009, of the 22% of beginning farms in the U.S. that had positive returns from their operations after depreciation, the household income of the farm-household was \$71,059 (Ahearn 2011).

The Transition Process: Then and Now

One aspect for consideration is the traditional life cycle of the farm. If beginning farmers are becoming older, the life cycle is likely to not follow its traditional progression. According to Barry (1995), the life cycle of the farm can be closely related to the life time of the farm manager. Three primary stages are apparent in the farm life cycle, particularly those that are operated as family farms or sole proprietorships: 1. Entry or establishment phase 2. Growth and survival stage 3. Exit or disinvestment phase (Olson 2011). During the first phase, wealth and liquidity are typically low and risk is at a very high level. High risk activities are very characteristic of this phase because there is less money involved in the business compared to

later in the farm life cycle and the farm may not survive if risks are not taken to ensure the future success of the farm (Olson 2011). The second stage involves expansion of the farm business after it has been established. The third phase of the farm life cycle is characterized by the farmer planning for retirement and the transition of the farm to the next generation. Farmers in this phase typically fall into two distinct categories: 1. Those who avoid risk because they are looking to exit the industry and disinvest. 2. Those who take on risk to successfully transfer the farming operation to the next generation by balancing needs of exiting farmer and those of the entering farmer (Olson 2011). In analyzing factors affecting the financial performance of beginning farmers, results showed that there was an inverted U relationship between age of operator and financial performance, indicating that financial performance was low for young producers, improved to a point, and then declined as the producer looked to retirement (Mishra, Williams, Wilson 2009). Most farms with less than \$50,000 in sales lose money farming and are completely dependent on off-farm income. The average asset base for farms with sales over \$50,000 was \$1.9 million in 2007 (Ahearn and Newton 2009).

Issues Facing Beginning Farmers

According to Ahearn and Newton (2009), two primary issues face beginning farmers and ranchers: high capital startup costs and lack of farmland that is affordable to purchase or rent. These issues create barriers to entry that make it difficult for beginning farmers and ranchers to operate at a level that takes advantage of economies of scale and provide enough income to support these producers.

Data and Methods

This research focuses on two base forage scenarios that are typical for a cow-calf producer in Oklahoma: 1) Introduced pasture forage base that is a mix of Bermuda and fescue 2) Native Pasture. Assumptions for the alternative forage bases are listed in Table 1.

To project financial outcomes for the beginning cow-calf producer, Integrated Farm Financial Statements (IFFS) is used. IFFS is a software program developed by the Oklahoma State University Cooperative Extension service (Doye et al.) One application of this whole farm planning tool is to evaluate alternative production plans. The software program is based on interdependent Excel-based workbooks used to construct complete financial statements. With the aid of enterprise budgets developed by Oklahoma State University (OSU) agricultural economics department (Sahs and Doye), crop and livestock budgets files are developed for individual enterprises in the farm plan. The additional information files can be utilized to enter off-farm income, living expenses, any expenses not related to a particular enterprise, and any capital expenses or purchases. A debt worksheet records outstanding debts with their specific parameters. Files can easily be added or removed to produce a full set of alternative financial statements for the farm.

For each forage base, three herd sizes (50, 100, 150 head) are evaluated. The off-farm income for the operation is estimated to be \$65,000/year for all scenarios. Projections were initially run assuming an income of \$55,000/year as the projected off-farm income (based on the median family income for Oklahoma of \$52,403, U.S. Census bureau). However, the net cash flow was negative for all scenarios and was increased to \$65,000/year. Family living expenses are equal to \$60,000 for all scenarios, an estimate based on family living expenses collected by the Kansas Farm Management Association.

For the three different herd sizes, two alternative operating loan terms are analyzed. One scenario utilizes a commercial operating note for 5 years at 4% interest. It should be noted that these are very favorable terms (as the results point out, it would be difficult to service this debt if terms were any less favorable). The other scenario utilizes the FSA beginning farmer operating loan. Current rates for this operating note are 1.25% and once again a term of 5 years is assumed. We assume that the producer is renting the indicated forage base and financing the full amount of the purchased cattle. Cows are purchased on average for a price of \$1,250/ head and bulls for \$2,500/head. The yearly debt obligations for the producer can be seen in Tables 4-9. It is assumed that the cow herd is purchased in January and will produce a calf the following spring. Calf forecasting prices are based on expert opinion (Peel) based on current market conditions due to cattle numbers (Table 3). All calves are raised and sold with a marketing endpoint at weaning in October.

2012 budget default production parameters and input prices for the OSU enterprise budgets were used (Sahs and Doye). It should also be noted that the estimates for fertilizer used in these budgets are very conservative at \$90/acre. For all scenarios of improved pasture, fertilizer application is custom hired. Calving percentage was 87% and calf death loss is estimated at 3%. Average weaning weights are 529.3 lbs. for steer calves and 497.7 lbs. for heifer calves. These parameters are based on data gathered for the Cow-Calf Standardized Performance Analysis (SPA) for cow-calf producers in Texas, Oklahoma, and New Mexico (Bever). Other production parameters are listed in Table 2. We assume the producer has initial savings of \$20,000. In addition, the producer has a used $\frac{3}{4}$ ton pickup valued at \$18,000. Equipment to be financed along with the livestock using the alternative operating loans include a

used gooseneck trailer valued at \$5,000 and equipment including a chute, portable corrals, and feeders totaling \$11,300.

After all base scenarios are constructed and analyzed, a five year projection is made for the 100 head base scenario to evaluate the operation over the course of the livestock loan (Table 6). One of the biggest challenges of these projections was formulating a strategy for replacing cull cows and maintaining herd size. Retaining heifers for replacements can be difficult for a herd this size (Troxel 2007). We assume a culling rate of 10% per year to be sold in October to be replaced with bred females purchased in December for the following year. This is likely not a long-term herd management strategy but for cash flow purposes and establishing a cow herd will work for this research. In year 4, a land purchase using three alternative methods for financing the purchase will be evaluated using the 100 head base case scenario (Table 8): 1) A traditional note with a required 20% down payment, 25 year term, and 4% interest rate 2) The FSA down payment program that requires 5% down, 20 year term, and 1.5% interest rate for 45% of the purchase price with the remaining 50% of the purchase price financed using the same terms as the traditional loan 3) The FSA direct farm ownership loan with no down payment, 3.125% interest, and a term up to 40 years (25 years is used in scenario) with a maximum amount to be financed of \$300,000. The FSA farm ownership loans require that the operator meet some specific requirements: 1) Be a beginning farmer (if more than one operator then every operator must be by definition a beginning farmer) 2) meet the requirements for the specific program the producer is applying for 3) substantially participate in the operation 4) does not own a farm greater than 30% of the median farm size in the county 5) For ownership purchases, the applicant must have participated in the business operation for at least three years (fsa.usda.gov).

Results

Table 4 indicates that a beginning cow-calf producer will have a very difficult time having a positive cash flow or net farm income on improved pasture. Even though significantly less land is required and the land is stocked much more heavily, the additional fertilizer expense incurred by maintaining the fescue and Bermuda offset this. As Table 4 indicates, cash flow was negative for all herd sizes but as the herd was expanded to 100 head the producer's cash supply was completely depleted and an outstanding balance transferred to the following year. Even though the beginning producer could sustain small losses from year to year, the introduced forage base appears to be infeasible for a beginning producer and the five year projection was not pursued.

The scenarios with the native pasture forage base showed that it was feasible for the beginning producer to operate (Table 5). Although the native pasture requires more acres and is less intensively stocked, the native pasture had positive returns for the beginning producer given the assumptions used. The decreased farm expenses allowed for the producer to have positive cash flow that will be available for reinvestment.

The terms of the FSA loan helped out considerably for both forage bases. However, the commercial terms used in this research also result in a feasible plan from a cash flow perspective for the native pasture. For instance, if the interest rate is 7%, which is more historically normal, the scheduled debt payment for equipment and 50 head of cattle is \$20,438/year for a five year note compared to the \$18,824/year (Table 4) used for the base case here. If the interest rate, were to increase to 7%, net cash flow would become negative for the 50 head, native pasture scenario. In these circumstances, the FSA beginning farmer operator loan would be beneficial in helping reduce payments. Another factor to consider is the initial purchase price for the cattle. Scenarios were developed based on an initial purchase price of \$1,250/head; however, this is likely low

given the current market conditions. For instance, if the cattle are purchased for \$1,500/head, the beginning operator would need a 7 year term on their operating note to have positive net cash flow holding all other assumptions constant.

One assumption of this research that is associated with the herd size is that the cow-calf operation is heavily supported with off-farm income of \$65,000/year. Admittedly, this is likely high for some parts of rural Oklahoma. Once again, this reinforces previous literature (Ahearn; Mishra, Williams, and Wilson) that beginning farms are very reliant on off-farm income. Take for instance, the native pasture 100 head operation utilizing the FSA operating loan. Decreasing the off-farm income to \$55,000/year net cash flow decreased to -\$409 from \$9,716. The line of credit analysis points to similar conclusions about the importance of off-farm income.

There are a few other points to consider for the cash flow of the beginning producer. The first is that at 50 head for the introduced pasture, the operation incurred a cash flow deficit while the native pasture did not. The reason for this is the additional fertilizer expense costs for the improved pasture. No matter the scale or off-farm income, fertilizer is a major cash expense at application during the summer months for summer months and debt payments will be difficult to make in addition to the operating expenses. In all scenarios, even ones where off-farm income was increased, the operation was very reliant on the line of credit to meet cash requirements for fertilizer expenses. The second thing to note is the reliance on the line of credit for the native pasture even at the 100 head herd size despite having a positive net cash flow. In this research, it is assumed that the cattle, all other assets, and new borrowing were acquired in January. There is also another large cash expense early in the year for hay feeding through the winter months. The operation started off the year at a deficit due to the increased costs for hay and it wasn't until the

calves were sold in October that the operation had a positive net cash flow. This is only minor, as the line of credit was paid off along with interest at the end of the year.

Where the favorable terms for the FSA operating loan became very helpful was when saving enough cash to make a down payment for the land purchase. Although the operation had a negative cash flow in the purchased year, the initial loan for the livestock will be paid off at the end of the second year of the land note and cash flow will be sufficient to purchase additional livestock. Purchasing native pasture land for cow-calf producers will be difficult given the large amount of land required to stock native pasture. Table 7 shows the down payment required along with the yearly debt obligations for the loan. The land to be purchased is 250 acres of native pasture to stock 25 moderate sized females. For the FSA farm ownership loans, the farm to be purchased cannot be over 30% of the median farm size in the county. For example, 250 acres would be under the limit for Dewey and Kiowa counties but over the limit for Caddo and Kiowa counties. The FSA ownership loans are helpful in providing an affordable down payment for the beginning producer but do limit the amount of land that can be purchased in many counties. The scheduled debt payments for the FSA farm ownership loans prove to be very close given the assumptions about the joint financing arrangement used in the down payment program (Table 8). Purchasing land and building equity is likely to be a slow process for cow-calf operators on native pasture. If a producer wanted to purchase 500 acres to stock 50 head, a 20% down payment of \$100,000 would be required. The returns from this alone would be difficult to service debt payments and would have to be subsidized with large amounts of leased land with cattle and perhaps off-farm income.

Discussion

According to these preliminary results, it is feasible for a beginning producer to operate a cow-calf operation on leased native pasture given the assumptions used in this research; however, there are some challenges the beginning producer faces. One of the largest issues facing a small or beginning producer is appropriate management practices related to maintaining herd numbers. Whether it is retaining replacement heifers or purchasing replacements, the small producer is going to be limited on cash to replace cull cows at a rate typical for the area. For this research, we assumed that all calves were sold at weaning for all herd sizes. Until the initial note is paid off and the herd is established, the producer may need to sell all heifer calves at weaning to maintain cash flow and meet scheduled debt payments. As indicated in the results, most of the returns were used to service the scheduled debt payments for the beginning producer. Growing the operation beyond a very small scale is most likely going to be a slow process while the herd is being established and the beginning producer will likely have to rely heavily on off-farm income. Table 8 shows the difficulty of purchasing native pasture due to the amount of land required to stock the land.

While previous research shows that beginning farmers are less likely to rent farmland than established farmers (Ahearn and Newton 2009), preliminary results of this research show the difficulty of acquiring land from returns to a cow-calf enterprise. For introduced pasture, the initial down payment and yearly debt obligations were considerably lower but the income generated from the cow-calf enterprise was not enough to cover additional operating expenses along with any sort of debt. Given our assumptions it appeared infeasible to make scheduled payments for the land and livestock in the first year. It is possible that the reason statistics show that most farmland for beginning farmlands is purchased from a nonrelative is largely reflective of purchases for small, hobby farms or farms purchased strictly for residential purposes. It also

may be reflective of the difficulty of transitioning farmland from one generation to the next and how much longer this process is taking; therefore, beginning farmers are required to purchase from a nonrelative rather than inheriting it.

One shortcoming of this research is that it assumes that there will be land for the beginning producer to rent. According to the literature (Ahearn) this is a potential barrier for beginning producers. Although, the literature also suggests that there should be a turnover land as indicated by the aging farmer population. However, will this land be rented or obtained by young and beginning producers or will the land be operated by more established producers with more experience? So goes the same for access to credit, despite the evidence here that it is possible for a beginning farmer to operate a cow-calf operation on native pasture, the manager of the operation lacks experience in the eyes of creditors. FSA has established very helpful programs that aid in the development of beginning farmers by allowing access to credit who may not have otherwise qualified for loans. Another shortcoming of this research is that expenses were assumed to be held constant over the five year projection period. More sensitivity analysis needs to be done to observe how a beginning producer fares with fluctuating input prices. In addition, this research assumes that forage is 100% available and can be stocked at full capacity; however, due to recent drought this is likely not the case, prices are historically high and are reflective of reduced cattle numbers across the U.S.

The next step in this research project will be to develop similar scenarios with cattle to be leased rather than purchased. Also scenarios will be developed for purchasing stocker calves to raise. The final step will be to develop a linear programming model with alternative enterprises to determine the optimal combination of enterprises given constraints faced by beginning producers including land, financial capital, and labor hours.

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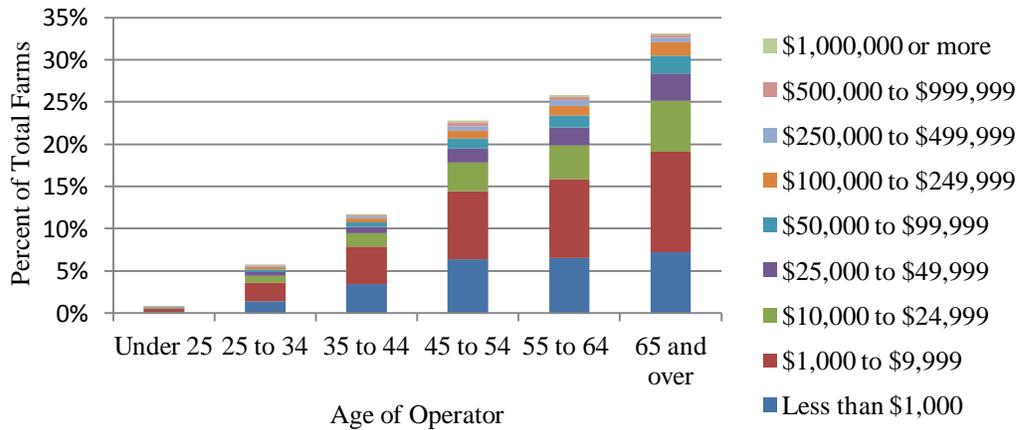


Figure 1. Percent of total farms by age and sales in Oklahoma (Source: USDA/NASS 2007)

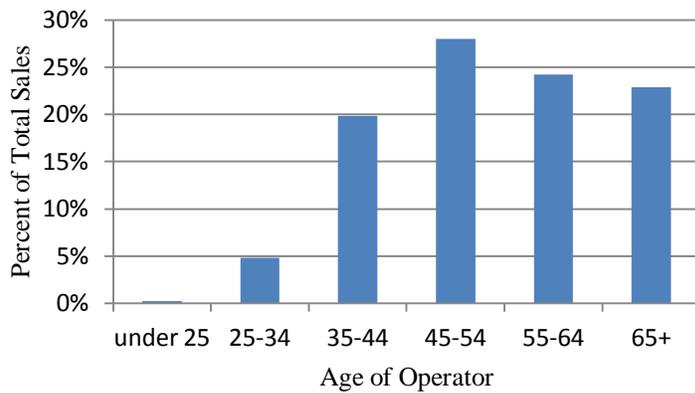


Figure 2. Percent of total agriculture sales in Oklahoma by age of operator (Source: USDA/NASS 2007)

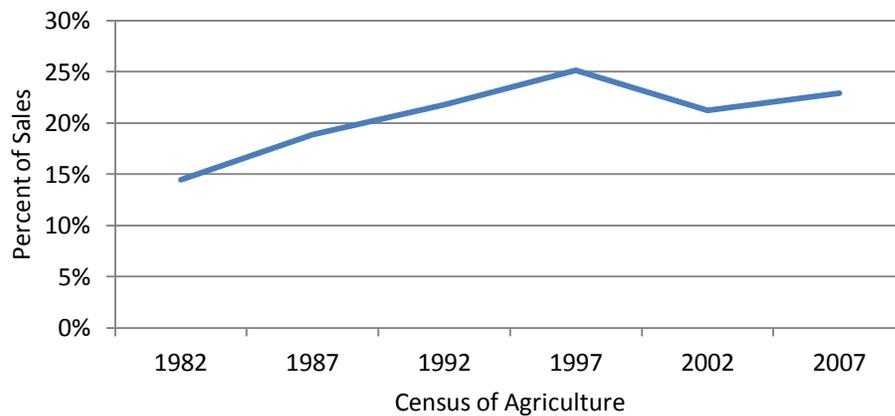


Figure 3. Share of total agriculture sales by operators over age 65 in Oklahoma (Source: USDA/NASS 2007)

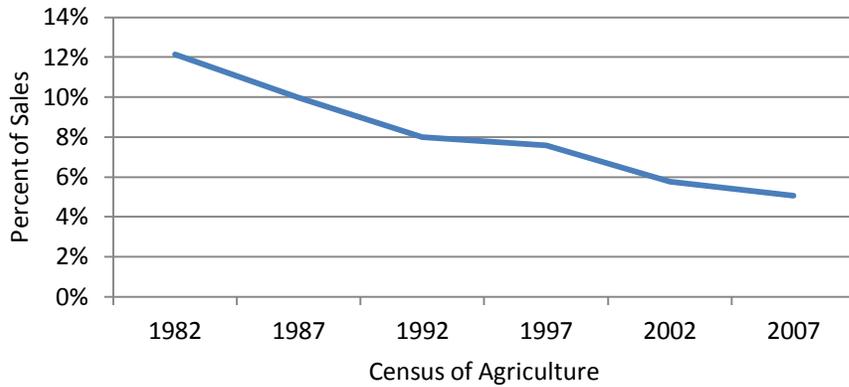


Figure 4. Share of total agriculture sales by operators under age 35 in Oklahoma (Source: USDA/NASS 2007)

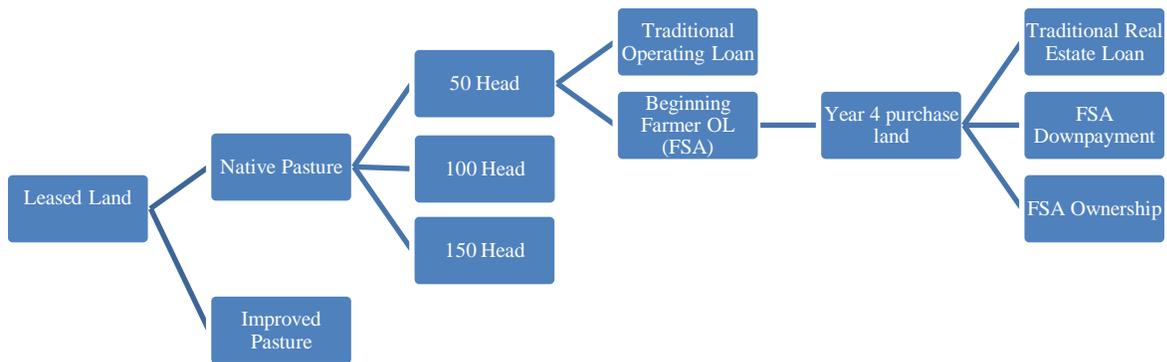


Figure 5. Alternative scenarios proposed for beginning cow-calf producer in Oklahoma

Table 1. Forage and Hay Assumptions by Forage Type

	Improved Pasture	Native Pasture
Forage per 50 head	160 acres	500 acres
Stocking Rate	3.2 acre/head	10 acre/head
Land Rent	\$17/acre for Bermuda \$22/acre for fescue	\$12/acre
Fertilizer	\$90/acre	N/A
Hay	\$120/ ton Bermuda hay	\$110/ton prairie hay
Land Price	\$1,500/acre	\$1,000
Line of Credit	Rate: 4% Minimum cash balance:\$1,000	Same

Table 2. Production Parameters

Cow Weight	1150 lbs	
Weaned Heifer Weight	497.7 lbs	
Weaned Steer Weight	529.3 lbs	
	Native Pasture	Introduced Pasture
Protein	1.5 #, 150 d, 38% cubes	2 #, 75 d, 20% cubes
Hay	Prairie Hay	Bermuda Hay
Cows kept full-year	24 #, 30 d	24#, 75 d
Bred Heifers	19 #, 30 d	19#, 75 d
Minerals	.12 lb/head/day	.12 lb/head/day

Table 3. Assumptions for Prices

	2012	2013	2014	2015	2016
Average Calf Prices (\$/cwt)	\$162.50	\$166	\$180	\$179	\$175
Average Cull Cow Prices (\$/cwt)	\$83.04	\$97.00	\$102.00	\$96.00	\$90.00

Note: Prices adjusted for seasonality in budgets

Table 4. Financial Projections for 2012, Introduced Pasture

	<u>50 Head</u>		<u>100 Head</u>		<u>150 Head</u>	
	Comm.	FSA	Comm.	FSA	Comm.	FSA
Livestock Sales	\$33,563	\$33,563	\$67,571	\$67,571	\$101,357	\$101,357
Off-Farm Income	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
Cash Inflow	\$98,563	\$98,563	\$132,571	\$132,571	\$166,357	\$166,357
Cash Farm Exp.	\$32,611	\$32,611	\$63,568	\$63,568	\$92,739	\$92,739
Living Exp.	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Cash Outflow	\$92,611	\$92,611	\$123,568	\$123,568	\$152,739	\$152,739
Debt Payments	\$18,824	\$17,394	\$33,425	\$30,885	\$48,587	\$44,896
Net Cash Flow	-\$12,943	-\$11,513	-\$24,900	-\$22,361	-\$35,940	-\$32,249
Interest Paid as a % of cash farm receipts	10.20%	3.33%	9.52%	3.46%	9.49%	3.63%
Current Ratio	0.42	0.51	0.03	0.03	0.02	0.02
Debt/Asset	63.29%	61.32%	76.44%	73.57%	82.82%	79.84%
Net Farm Income	-\$3,041	-\$342	-\$3,462	\$1,347	-\$2,564	\$4,425

Table 5. Financial Projections for 2012, Native Pasture

	<u>50 Head</u>		<u>100 Head</u>		<u>150 Head</u>	
	Comm.	FSA	Comm.	FSA	Comm.	FSA
Livestock Sales	\$33,563	\$33,563	\$67,571	\$67,571	\$101,357	\$101,357
Off-Farm Income	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
Total Income	\$98,563	\$98,563	\$132,571	\$132,571	\$166,357	\$166,357
Cash Farm Exp.	\$19,220	\$19,220	\$34,151	\$34,151	\$48,648	\$48,648
Living Exp.	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Total Expenses	\$79,220	\$79,220	\$94,151	\$94,151	\$108,648	\$108,648
Debt Payments	\$18,824	\$17,394	\$33,425	\$30,885	\$48,857	\$44,896
Net Cash Flow	\$519	\$1,949	\$4,844	\$7,383	\$8,594	\$12,285
Interest Paid as a % of cash farm receipts	9.99%	3.12%	9.03%	2.98%	9.06%	3.19%
Current Ratio	1.23	1.31	0.84	0.92	0.66	0.75
Debt/Asset	56.33%	54.65%	63.84%	61.84%	67.65%	65.48%
Net Farm Income	\$10,421	\$13,120	\$26,305	\$33,429	\$42,059	\$49,024

Table 6. Five Year Financial Projection, 100 head Native Pasture

	<u>2012</u>		<u>2013</u>		<u>2014</u>		<u>2015</u>		<u>2016</u>	
	Comm.	FSA								
Calf Sales	\$67,571	\$67,571	\$69,025	\$69,025	\$74,848	\$74,848	\$74,430	\$74,430	\$72,768	\$72,768
Off-Farm Income	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
Total Income	\$132,57	\$132,57	\$134,02	\$134,02	\$139,84	\$139,84	\$139,43	\$139,43	\$137,76	\$137,76
	1	1	5	5	8	8	0	0	8	8
Cash Farm Exp.	\$34,151	\$34,151	\$34,151	\$34,151	\$34,151	\$34,151	\$34,151	\$34,151	\$34,151	\$34,151
Living Exp.	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Total Expenses	\$94,151	\$94,151	\$94,151	\$94,151	\$94,151	\$94,151	\$94,151	\$94,151	\$94,151	\$94,151
Debt Payments	\$33,425	\$30,885	\$33,425	\$30,885	\$33,425	\$30,885	\$33,425	\$30,885	\$33,425	\$30,885
Net Cash Flow	\$4,844	\$7,383	\$4,421	\$6,960	\$8,284	\$13,062	\$7,218	\$12,373	\$7,408	\$9,947
Interest Paid as a % of cash farm receipts	9.03%	2.98%	7.03%	2.17%	4.96%	1.36%	3.39%	0.92%	1.77%	0.43%
Current Ratio	0.84	0.92	1.11	1.3	1.41	2.01	1.66	2.53	-	-
Debt/Asset	63.84%	61.84%	46.61%	44.05%	30.10%	24.49%	14.68%	11.55%	-	-
Net Farm Income	\$26,305	\$33,429	\$28,230	\$31,424	\$33,246	\$35,783	\$33,378	\$35,045	\$34,817	\$35,530

Table 7. Debt Obligations for 250 acre Pasture Purchase in 2015

	Commercial	FSA Down Payment	FSA Ownership
Down Payment	\$50,000	\$12,500	None
Scheduled Payments	\$12,802	\$14,554	\$14,558

Table 8. Land Purchase in Year 4, 100 Head Native Pasture Commercial Operating Loan

	<u>2015</u>			<u>2016</u>		
	Comm.	FSA Down payment	FSA Ownership	Comm.	FSA Down payment	FSA Ownership
Livestock Sales	\$74,430	\$74,430	\$74,430	\$72,768	\$72,768	\$72,768
Off-Farm Income	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
Total Income	\$139,430	\$139,430	\$139,430	\$137,768	\$137,768	\$137,768
Cash Farm Exp.	\$31,551	\$31,551	\$31,551	\$31,551	\$31,551	\$31,551
Living Exp.	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Total Expenses	\$91,551	\$91,551	\$91,551	\$91,551	\$91,551	\$91,551
Debt Payments	\$46,227	\$47,979	\$47,982	\$46,227	\$47,979	\$47,982
Net Cash Flow	-\$54,196	-\$17,323	-\$4,740	-\$2,795	-\$4,547	-\$4,550
Interest Paid as a % of cash farm receipts	15.76%	12.49%	13.90%	12.50%	10.69%	10.81%
Current Ratio	0.02	0.71	1.03	0.13	2.9	3
Debt/Asset	56.82%	58.98%	60.39%	45.92%	50.12%	53.17%
Net Farm Income	\$25,097	\$27,851	\$26,567	\$37,768	\$30,961	\$33,887