

# FARM MANAGEMENT GUIDE

KSU Beef Cow-Calf Budget

2018 Production Year

(as of Dec. 4th, 2017)

## Production Efficiency Information

Weaning Percentage	91.0%
Cow Replacement Percentage	16.0%

Revenue	Price	Unit	Qty	Unit	Total per Year per Cow
Weaned Calf Sale	\$ 153.00	per cwt	x 550	lbs	x 0.91 = \$ 765.77
Cull Cows	\$ 54.10	per cwt	x 1250	lbs	x 0.16 = \$ 108.20
Other Income					
<b>Gross Income</b>					<b>\$ 873.97</b>

## Variable Costs

Pasture	\$ 19.00	per acre	x 9.5	total acres	= \$ 180.50
Crop Residue	\$ 15.00	per acre	x 2.0	total acres	= \$ 30.00
Harvested Forage	\$ 70.00	per ton	x 2.25	total tons	= \$ 157.50
Grain/Protein Supplements	\$ 148.55	per ton	x 833.0	total lbs	= \$ 61.87
Mineral	\$ 850.00	per ton	x 100.0	total lbs	= \$ 42.50
Other Feed	\$ -	per unit	x 0.0	units	= \$ -
Labor	\$ 20.00	per hour	x 8.0	total hours	= \$ 160.00
Vet Medicine/Drugs					\$ 30.00
Replacement Females	\$ 814.00	per head	x 0.16	hd	= \$ 130.24
Annual Bull Charge or A.I.					\$ 43.00
Other Livestock Breeding/Marketing					\$ 22.00
Utilities,Gas, Fuel, Oil					\$ 28.00
Machinery, Facility/Equip. Repairs					\$ 40.00
Cash Interest Paid					\$ 27.00
Other variable costs					\$ 15.00
<b>Total Variable Costs</b>					<b>\$ 967.61</b>

## Fixed Costs

Depreciation					\$ 48.00
Taxes					\$ 9.00
Farm/Livestock Insurance					\$ 12.00
Opportunity Cost of Investment					\$ 135.00
Other fixed costs					\$ -
<b>Total Fixed Costs</b>					<b>\$ 204.00</b>

## Total Costs

<b>Total Costs</b>					<b>\$ 1,171.61</b>
Income Over Variable Costs					\$ (93.65)
<b>Income Over Total Costs</b>					<b>\$ (297.65)</b>

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## KSU Beef Cow-Calf Budget

K-State's Agricultural Economics Department annually publishes *Farm Management Guides* to estimate the current profitability of different agricultural enterprises. A new format for livestock enterprises allows the user to change certain key inputs to cater the budget to their production situation. Climate, genetics, local cash prices, and a variety of other factors makes budgeting to the entire state of Kansas difficult. While defaults in the spreadsheet are research-based estimates for the state, users should enter their own prices and costs using the cells in [blue](#). Base prices reflect one production year with weaned calf sales occurring in October. Users are encouraged to update prices to best reflect their specific situation.

The Kansas Farm Management Association (KFMA) is frequently cited as an informational source for production and cost estimates. Trained K-State economists work with these farms to keep consistent records, do performance analysis, and state benchmarking. Default costs in the tool are based on 10-year trends, rounded to the nearest dollar.

Two different sets of price forecasts are available in the spreadsheet. By clicking the dropdown menu at the top of the budget, a user can select "2018 Production Year" or "Five Year Out Prices". All price assumptions can be viewed in the *Prices* tab.

Feed assumptions can be viewed in the *Feed* tab. The default Cow/Calf budget assumes a spring calving herd that develops their own replacements; therefore costs include 16% of the cost of raising a replacement heifer (default is a 16% replacement percentage) and 4% of the cost of maintaining a bull (assuming 1 bull per 20 cows). If purchasing replacements or A.I. breeding, costs should be adjusted accordingly.

### Production Efficiency Measures

**Weaning Percentage:** Calves weaned per cow exposed. Default is KFMA state average.

**Cow Replacement Percentage:** Percent of heifer calves retained for replacements as well as cull cows sold.

*\*Note, KFMA values used reflect 95 farms with an average herd size of 133 cows.*

### Revenue

**Weaned Calf Sale:** Price is weighted between steer and heifer calves based on the Cow Replacement Percentage.

**Cull Cows:** Cow Replacement Percentage will determine the amount of cull cow sales to attribute to revenue per cow. Cull cow weight can be adjusted.

### Variable Costs

**Pasture:** State average estimate of a 10-year linear trend using NASS surveys for pasture rental rates.

**Crop Residue:** Defaults to \$15 per acre, assuming \$0.50/head/day, over 2 acres for 60 days.

**Harvested Forage:** In the *Feed* tab, a yearly ration of hay, silage, and alfalfa gets combined and the price weighted based on the proportions of each.

**Grain/Protein Supplements:** In the *Feed* tab, a yearly ration of corn, soybean meal, and distiller's grains gets combined and the price weighted based on the proportions of each.

**Mineral:** In the *Feed* tab, total pounds/year is entered.

**Labor:** KFMA *Labor Hired + Unpaid Operator Labor* determined a dollar per hour estimate for all cattle budgets. Labor hours are determined accordingly.

**Vet Medicine/Drugs:** KFMA value

**Replacement Females:** Assumes the value of a weaned heifer calf and applies to the per cow budget using the replacement percentage. If purchasing replacements, change this to purchase cost and reduce expenses accordingly.

**Bull Charge or A.I.:** Default assumes straight-line depreciation on a \$6,000 bull with a \$1,700 salvage value and 4 year useful life. 4% is applied per cow.

**Other Livestock Breeding/Marketing:** KFMA value which includes trucking, sale commissions, and other expenses.

**Utilities, Gas, Fuel, Oil:** KFMA values for the beef cow enterprises's share.

**Machinery, Facility/Equip. Repairs:** KFMA values

**Cash Interest Paid:** KFMA value

**Other Variable Costs:** Rough sum of all other KFMA variable costs, includes fees/publications/travel, conservation, building rental, and auto expense.

**Depreciation:** KFMA value

**Real Estate Tax:** KFMA value

**Farm/Livestock Insurance:** KFMA value

**Opportunity Cost of Investment:** KFMA Interest charge-does not represent cash interest paid, rather a measure to reflect the interest that could have been earned had the investment been made elsewhere.

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### Budget Assumptions

**Cow-Calf Feed Requirements:** (per cow unit + 16% of developing heifer + 4% of bu

	<u>Qty</u>	<u>Unit</u>
Pasture	9.5	<i>total acres per year</i>
Crop Residue Grazing	2.00	<i>total acres per year</i>
Prairie/Brome Hay	2.25	<i>total tons per year</i>
Silage	0.00	<i>total tons per year</i>
Alfalfa	0.00	<i>total tons per year</i>
Total Harvested Forage	2.25	<i>total tons per year</i>
Corn	95.0	<i>total lbs per year</i>
DDG's	738.0	<i>total lbs per year</i>
Soybean Meal	0.0	<i>total lbs per year</i>
Total Grain/Protein Supplements	833.0	<i>total lbs per year</i>
Salt and Mineral	100.0	<i>total lbs per year</i>

### Default Cow-Calf Price

	<u>2017</u>	<u>Five Years Out</u>
Corn (\$/bu)	\$ 3.30	\$ 3.40
Soybean Meal (\$/ton)	\$ 314.00	\$ 339.00
DDGS (\$/ton)	\$ 152.50	\$ 157.12
Silage (\$/ton)	\$ 26.40	\$ 27.20
Prairie Hay (\$/ton)	\$ 70.00	\$ 72.12
Alfalfa (\$/ton)	\$ 115.00	\$ 118.48
Pasture Rental (\$/acre)	\$ 19.00	\$ 20.90
Crop Residue (\$/acre)	\$ 15.00	\$ 16.50
Beef Cow Mineral (\$/ton)	\$ 850.00	\$ 935.00
Oct. Heifer Calf Price (\$/cwt)*	\$ 148.00	\$ 123.80
Oct. Steer Calves Price (\$/cwt)*	\$ 158.00	\$ 132.16
Beef Cull cow (\$/cwt)*****	\$ 54.10	\$ 48.24

\* This a predicted October price for the budget year

\*\*\*\*\*This a current cull cow price for the date of the latest price update when using current prices

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