

FARM MANAGEMENT GUIDE

KSU Beef Backgrounding Budget

2018 Production Year

(as of Dec. 4th, 2017)

Production Efficiency Information

Death Loss	2.0%				CWT Produced
Days in Backgrounding Lot	150.0	Average Daily Gain	1.25		1.875

Gross Return	Price	Unit	Qty	Unit	Total per Year
Feeder Animal Sale	\$ 140.04	per cwt	x 738	lbs	= \$ 1,032.81
Purchase price	\$ 158.00	per cwt	x 550	lbs	= \$ (869.00)
Death Loss					\$ (17.38)
Other					
Total Gross Return					\$ 146.43

Variable Costs	Price	Unit	Qty	Unit	Total per Year
Pasture	\$ 19.00	per acre	x 0.0	total acres	= \$ -
Crop Residue	\$ 15.00	per acre	x 0.0	total acres	= \$ -
Harvested Forage	\$ 92.50	per ton	x 0.53	total tons	= \$ 48.56
Grain/Protein Supplements	\$ 135.18	per ton	x 2100	total lbs	= \$ 141.94
Mineral	\$ 600.00	per ton	x 45.0	total lbs	= \$ 13.50
Other Feed	\$ -	per unit	x 0.0	units	= \$ -
Labor	\$ 20.00	per hour	x 1.5	hours	= \$ 30.00
Vet Medicine/Drugs					\$ 11.00
Marketing costs					\$ 9.00
Utilities,Gas, Fuel, Oil					\$ 4.00
Machinery, Facility/Equip. Repairs					\$ 7.00
Cash Interest Paid					\$ 7.00
Other variable costs					\$ 1.00
Total Variable Costs					\$ 273.00

Fixed Costs	Total per Year
Depreciation	\$ 6.00
Taxes	\$ 1.00
Farm/Livestock Insurance	\$ 1.00
Opportunity Cost of Investment	\$ 21.00
Other fixed costs	\$ -
Total Fixed Costs	\$ 29.00

Total Costs	\$ 302.00
Income Over Variable Costs	\$ (126.57)
Income Over Total Costs	\$ (155.57)

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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.

Rainfall, temperature, 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 feeding a weaned calf from October of the budget year to March of the following year. 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 KFMA 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. While pasture and crop residue grazing are not used in the default scenario, they can be entered as a total acre amount for the feeding period. Harvested forages, grain & supplements, and salt & mineral are on a head per day basis and will be multiplied by the days in the backgrounding lot to determine total feed amounts.

Production Efficiency Measures

Death Loss: Percentage of animals normally lost.

Days in Backgrounding Lot: Will be used to calculate ending weight and be multiplied by feed inputs that are on a per day basis.

Average Daily Gain: Will be multiplied by days in the lot to determine ending weight. ADG is a large driver of returns, so should be adjusted to fit the production setting. If pasture or crop residue is used during the feeding period, overwrite the ending weight value to achieve the correct weight if need be.

Gross Return

Feeder Animal Sale: Default is based upon a March Steer price, adjust if purchasing heifers.

Purchase Price: Default price is based upon a October Steer price, adjust if purchasing heifers.

Death Loss: Death Loss percentage is multiplied by the purchase animal price to determine the deduction.

Variable Costs

Pasture: State average estimate of a 10-year linear trend using NASS surveys for pasture rental rates. Pasture is not used in this example.

Crop Residue: Defaults to \$15/acre, but no crop residue is used in this example.

Harvested Forage: In the *Feed* tab, a daily ration of hay, silage, and alfalfa gets combined and multiplied by days in the backgrounding lot. The price is weighted based on the proportions of each forage.

Grain/Protein Supplements: In the *Feed* tab, a daily ration of corn, soybean meal, and distiller's grains gets combined and multiplied by days in the backgrounding lot. The price is weighted based on the proportions of each feedstuff.

Mineral: In the *Feed* tab, a daily amount is entered which is multiplied by days in the backgrounding lot.

Labor: Researched labor per animal is .30 hours per month. *KFMA Labor Hired + Unpaid Operator Labor* determined a dollar per hour estimate for all cattle budgets.

Vet Medicine/Drugs: KFMA value

Livestock Marketing: KFMA value which includes trucking and sale commissions.

Utilities, Gas, Fuel, Oil: KFMA values which includes fuel & oil for equipment, and the enterprises's share of telephone, electricity, gas, and water expenses.

Machinery, Facility/Equip. Repairs: KFMA value

Cash Interest Paid: KFMA value

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

Depreciation: KFMA value

Taxes: KFMA value

Farm/Livestock Insurance: KFMA value for general farm insurance

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.

**Note, KFMA values used reflect 39 farms with an average of 716 head.*

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Budget Assumption

Backgrounding Feed Requirements		(per animal unit)	
	Qty	Unit	
Pasture	0.0		<i>total acres for feeding period</i>
Crop Residue	0.0		<i>total acres for feeding period</i>
Prairie/Brome Hay	3.50		<i>lbs/day</i>
Silage	0.00		<i>lbs/day</i>
Alfalfa	3.50		<i>lbs/day</i>
Total Harvested Forage	7.00		<i>lbs/day</i>
Corn	7.00		<i>lbs/day</i>
DDG's	7.00		<i>lbs/day</i>
Soybean Meal	0.00		<i>lbs/day</i>
Total Grain/Protein Supplements	14.00		<i>lbs/day</i>
Salt and Mineral	0.300		<i>lbs/day</i>

Default Backgrounding Prices		2017	Five Years Out
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
Other Beef Mineral (\$/ton)	\$	600.00	\$ 660.00
Oct. Steer Calves Price (\$/cwt)*	\$	158.00	\$ 132.16
One-Year-Out March Feeder Steers (\$/cw)	\$	140.00	\$ 122.06

* This a predicted October price for the budget year

*****This is a predicted one-year-out March feeder steer price used in the backgrounding budget

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