

CROP ENTERPRISE

B U D G E T



CONVENTIONAL DRYLAND WINTER WHEAT/FALLOW ROTATION, GOSHEN COUNTY, WYOMING

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This crop budget models a representative dryland wheat/fallow operation in southeast Wyoming. A two-year wheat/fallow rotation is a typical practice for dryland farming in southeast Wyoming. The budget shows the costs associated with 2 acres (wheat production and fallowed land). The operations described are typical for a southeast Wyoming operation. Operations and values are best estimates, taken from multiple sources in southeast Wyoming and the Nebraska Panhandle, including University of Nebraska state crop budgets (Klein et al., 2017a; Klein et al., 2017b). University of Minnesota machinery cost estimates were used to establish use-related costs (Lazarus, 2015).

Many different winter wheat varieties are planted on dryland acres in Wyoming. The Buckskin variety has historically been the most popular wheat variety seeded in the state, although recently acreage has dropped and other varieties, including Pronghorn and Goodstreak, have increased. An average yield over the varieties is included in this budget. Another wheat variety, Cowboy, has seen an increase in acreage, but it still fairly new (USDA-NASS, 2017b).

Land

This budget assumes the land base is owned by the producer. Real estate opportunity cost is assumed at a rate of 4 percent per acre. Real estate taxes are assumed to be 1 percent per acre. The per-acre land value is estimated as the average value of irrigated cropland in the state of Wyoming, according to the most current Wyoming Agricultural Statistics Service survey (USDA-NASS, 2017a).

Labor

This budget assumes labor is provided by the landowner at a rate of \$25 per hour for all field operations except the custom application of fertilizer, assumed at \$6.50 per acre by a chemical supply company or \$3.96 per acre if done by landowner.

Capital

Interest on operating capital is included at 5.5 percent. This percentage represents interest paid to a lending institution on loaned capital. Interest is charged on operating capital for cash expenses for a 6-month time period. This percentage should be adjusted based on the individual producer's situation.

Field Operations

The enterprise budget is based on an assumed yield of 45 bushels per acre. The budget is also based on a one-crop-in-two-years assumption. No crop insurance is assumed for this budget, but there are various options available. Planting occurs in September, using a 20-foot, no-till disk. Two fertilizer applications are used in the wheat acre enterprise budget—one application of 10-34-0 applied in the fall at planting and 46-0-0 (dry urea) applied in the spring. Harvest typically occurs in July using a combine with a 20-foot wheat head. The



Conventional Dryland Winter Wheat/Fallow, Southeast Wyoming, 2017

Conventional Wheat/Fallow Rotation, 45 bushel/acre goal

(1 year wheat, 1 year fallow)

CONVENTIONAL WHEAT

Field Operations	Use-Related Cost/Acre	Total Cost/Acre
Drill	\$11.00	\$13.95
Spray	\$3.03	\$3.96
Liquid Fertilizer Application		
Dry Fertilizer Application		
Combine Dryland	\$29.16	\$34.07
Truck		
Total Conventional Wheat Field Operations	\$43.19	\$51.98

Materials and Services	Type	Rate	Unit	Per Unit Price	Total
Fertilizer	11-52-0	25	lbs	\$0.25	\$6.25
Custom	Spread Dry Fertilizer	1	acre	\$6.00	\$6.00
Seed	Wheat	60	lbs	\$0.15	\$9.00
Fertilizer	28-0-0-5	8	gallon	\$1.38	\$11.04
Custom	Liquid Fertilizer Application	1	acre	\$6.00	\$6.00
	Dicamba	0.6	ounce	\$12.10	\$7.26
Herbicide	Barrage 2,4-D	6.8	ounce	\$0.16	\$1.09
	Hel-Fire adjuvant	64	ounce	\$0.16	\$1.02
Custom	Hauling Grain	45	bushel	\$0.12	\$5.40
Total Materials and Services					\$53.06
Total Operations, Materials and Services					\$105.04

FALLOW

Field Operations	Use-Related Cost/Acre	Total Cost/Acre
Disc	\$8.92	\$11.33
Land Finisher	\$4.87	\$6.24
Land Finisher	\$4.87	\$6.24
Land Finisher	\$4.87	\$6.24
Disc Edges 10%	10%	\$0.89
Fallow Field Operations	\$24.42	\$31.18

Materials and Services	Type	Rate	Applied Price	Total
Fallow Production Cost/Acre				\$31.18
Total Field Operations				\$83.16
Listed Operations, Materials, and Services				\$188.21
Total Interest on Operation Capital	5.50% for 6 months	5.50%	\$120.67	\$6.64
Total Operations, Materials, and Services				\$142.86

Overhead Field	Insurance, Vehicles, Office			\$20.00	
Real Estate Opportunity Cost	Dryland	\$770.00	acre	4.00%	\$30.80
Real Estate Taxes		\$770.00	acre	1.00%	\$7.70
Overhead Fallow	Insurance, Vehicles, Office			\$20.00	
Real Estate Opportunity Cost	Dryland	\$770.00	acre	4.00%	\$30.80
Real Estate Taxes		\$770.00	acre	1.00%	\$7.70
Total Overhead				\$117.00	
Total Cost Including Overhead				\$259.86	

Cost per Bushel	\$5.77
Cash Cost per Bushel	\$2.85

fallow land is cultivated three times from May to June. Per-acre use-related and total cost for implements, with associated power units, are averaged over all sizes by implement type in the operation portion of the budget. Using this approach encapsulates all possible tractor types and horsepower sizes.

Sources:

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Lazarus, William F. 2015. "Machinery Cost Estimates." University of Minnesota Extension, St. Paul, MN. <http://www3.extension.umn.edu/sites/default/files/download/Machinery%20Cost%20Estimates%20June%202015.pdf>

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