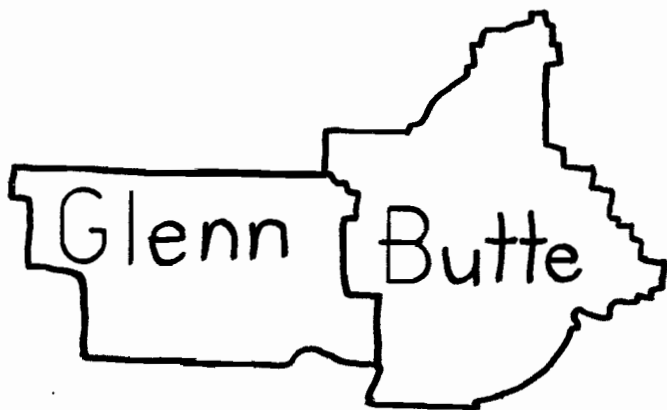


# SAMPLE COSTS of PRODUCTION DRY BEANS

Tenant-Landowner Basis



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## BASIS OF DRY BEAN COST STUDY

1. This study is based on a 1,100 acre field crop operation with 250 acres of dry beans. Other crops grown on the ranch may include one or more of the following: grain, alfalfa hay, grain sorghum, sugar beets, corn, safflower, etc. Much of the equipment is used on the entire acreage sometime during the year.

For reasons of simplicity, we used a landlord-tenant operation with a 75-25 division of the crop. In this study the tenant delivers the crop to the warehouse, but the landlord pays his own warehouse costs.

2. In allocating the equipment cost per acre the following calculations were made: (a) "Original Cost" of equipment is the estimated new cost and includes 6% sales tax. (b) "Cost Per Acre" is the new cost divided by the number of acres the equipment will be used on. (c) "Depreciation" is based on the "Per Acre Cost" divided by the expected life of the equipment. (d) "Interest" on investment is figured on one-half of the new cost per acre multiplied by 8%.
3. Miscellaneous expenses are estimated to be about 6% of the total cultural and harvest costs. They include such costs as preparing roadways, general weed control, office, bookkeeping, interest on operating money, etc.
4. Labor costs are based on a \$5.50 hourly rate for skilled labor and \$3.50 hourly rate for unskilled (irrigator). Included are cash wages, compensation insurance, social security and other benefits that the employer might pay.
5. Equipment operating costs are listed under fuel and repair. Included is the cost of fuel, maintenance, replacement parts, tires, etc. Tractor charges per hour are: 130-150 HP track diesel \$9.85; 120 HP wheel diesel \$4.25 and 100 HP wheel diesel \$3.55. This and other information was partially taken from "Machinery Costs and Performance, 1975" (adjusted) by A.D. Reed, University Extension Economist, U.C. Davis.
6. Management (what the grower's decision making is worth) is figured at 5% of the market value of the crop.
7. Production operations will vary from year to year and some costs will not be the same for all growers. Insecticide, herbicide and fertilizer rates and costs will also be different some years and with some growers.
8. These sample costs may not represent the cost of any one individual grower but should serve as a useful guide in reviewing the typical costs in dry bean production. Growers are encouraged to make use of the column "Grower Costs Per Acre" to permit a comparison of the costs in this study with their own.
9. Growers from Butte and Glenn Counties participated in furnishing information for compiling the basic information in this study. Some information was obtained from agribusiness representatives. Appreciation is expressed to them for their time and help.

Investment	Annual Cost			Total	Grower's Cost/A
	Per Acre	Depreciation	Interest		
Land (Tenant)					
Irrigation system	\$ 1.23	\$ .18	\$ .05		
Buildings	22.73	.76	.91		
Equipment	201.09	17.23	8.84		
<b>TOTAL</b>	<b>\$ 225.05</b>	<b>\$ 18.17</b>	<b>\$ 9.80</b>	<b>\$ 27.97</b>	
<b>TOTAL COST PER ACRE</b>				<b>\$ 452.22</b>	
Cost per cwt @ 20 cwt/A (clean)				<b>\$ 22.61</b>	

### EQUIPMENT AND BUILDING LIST

Item	Original Cost	Annual Use (Acres)	Cost Per Acre	Life (Years)	Depre- ciation	Interest at 8%
Tractor, 130-150 HP Tr. Diesel	\$ 63,000	1100	\$ 57.27	20	\$ 2.86	\$ 2.29
Tractor, 120 HP Wh Diesel	27,000	1100	24.55	15	1.64	.98
Tractor, 100 HP Wh Diesel	22,000	1100	20.00	15	1.33	.80
Plow 4-18 hydraulic 2-way	6,500	880	7.39	15	.49	.30
*(Sp, tooth or field cult., 32')	(4,800)	(1100)	(4.36)	(15)	(.29)	(.24)
*(Chisel, heavy duty, 16')	(5,000)	(880)	(5.68)	(15)	(.38)	(.31)
*(Disc, stubble, 12')	(7,500)	(880)	(8.52)	(15)	(.57)	(.46)
Disc, offset, 21'	10,500	1100	9.55	15	.64	.38
Triplane, 16'	7,500	880	8.52	15	.57	.34
Disc, tandem, 21'	7,500	1100	6.82	10	.68	.27
Bedding tools, 6-row	3,000	880	3.41	15	.23	.14
Ditcher, 5'	2,500	1100	2.27	20	.11	.09
Ditch plow, 3 bottom, used	1,000	1100	.91	10	.09	.04
Rolling cultivator, 6-row	4,500	1100	4.09	10	.41	.16
Planter, 6-row	3,200	880	3.64	10	.36	.15
Saddletanks (2 sets)	2,500	880	2.84	10	.28	.11
Cultivator sled and equipment	4,500	880	5.11	10	.51	.20
Cutter, 6-row	4,000	250	16.00	20	.80	.64
Windrower, 6-row	4,000	250	16.00	10	1.60	.64
Tool carrier, used	4,000	1100	3.64	20	.18	.15
Truck, used, 2-ton	6,000	1100	5.45	10	.55	.22
Pickup	7,500	1100	6.82	5	1.36	.27
Pickups, two (2), used	6,000	1100	5.45	3	1.82	.22
Siphons, 400-2"	1,080	880	1.23	7	.18	.05
Shop tools	10,000	1100	9.09	15	.61	.36
Buildings	25,000	1100	22.73	30	.76	.91
Tank, nurse, w/pump, 1500 gal.	2,000	880	2.27	20	.11	.09
<b>TOTAL</b>	<b>\$ 242,700</b>		<b>\$ 222.05</b>		<b>\$ 18.17</b>	<b>\$ 9.80</b>

\* Listed on inventory and may be used by some operators but not included in totals.

SAMPLE COSTS TO PRODUCE COMMON DRY BEANS  
Butte and Glenn Counties, March 1977

Cultural Operation	Hours Per Acre	Costs Per Acre			Total	Grower's Cost/A
		Labor	Fuel and Repairs	Materials Kind and Quantity Cost		
Plow (or chisel) 1x	.33	\$ 1.85	\$ 4.64		\$ 6.49	
Disc 1x	.14	.77	1.84		2.61	
Triplane 2x	.28	1.54	3.26		4.80	
Landplane 3x (4th year)	.19	1.05	2.35		3.40	
Fertilize	.14	.77	1.48	125 N/A @ .16/lb \$20.00 Rent applicator \$ 1.00	\$ 21.00	23.25
Incorporate herbicide; disc 2x	.32	1.76	1.81	Herbicide @ \$5.16	5.16	8.73
List beds	.13	.72	.71			1.43
Ditch prep. 4x	.32	.72	3.73			4.45
Irrigate (pre + 5x)	8.40	29.40		3½ acre feet/acre @ \$4.80	16.80	46.20
Incorporate layby herb. rolling cultivator 2x	.33	1.82	1.61	Herbicide @ \$9.23	9.23	12.66
Plant & starter fert.	.50	2.75	3.61	Seed 70 lb./A @ \$ 0.28/lb. Starter NPK Fertilizer	19.60 21.00	46.96
Pest control, air 2x	Custom			Insecticide- Miticide Airplane @ \$3.50/A	22.98 7.00	29.98
sc., downtime, etc.	1.50	8.25	1.00			9.25
<b>TOTAL CULTURAL COSTS</b>		<b>\$51.40</b>	<b>\$26.04</b>		<b>\$122.77</b>	<b>\$200.21</b>
<b>Harvest-Warehouse Operation</b>						
Cut beans	.20	\$ 1.10	.29			\$ 1.39
Windrow	.20	1.10	1.17			2.27
Hand turn row ends	.10	.35				.35
Thresh, custom				\$ 1.05/cwt	23.33	23.33
Pull thresher	.25	1.38	1.06			2.44
Hauling, custom				\$ 0.15/cwt	3.33	3.33
Warehousing						
Tenant's share - 75%						
Cleaning				16.7 cwt @ .90	15.03	15.03
Sacks (clean beans)				15.0 cwt @ .35	5.25	5.25
Storage (clean beans)				15.0 cwt @ .35	5.25	5.25
<b>TOTAL HARVEST COSTS</b>		<b>\$ 3.93</b>	<b>\$ 2.52</b>		<b>\$52.19</b>	<b>\$58.64</b>
<b>Cash Overhead</b>						
Misc. (office, bookkeeping, phone, etc.; 6% of Cultural and Harvest costs)						\$15.53
Taxes and insurance (2.5% of investment/A)						5.55
Rent (25% of uncleaned crop, delivered) 5.56 cwt @ \$22.00						\$122.32
<b>TOTAL CASH OVERHEAD</b>						<b>\$143.40</b>
<b>TOTAL CASH COST</b>						<b>\$402.25</b>
Management - 5% of gross income (5% x 20 cwt x \$22.00/cwt)						\$ 22.00

NET INCOME @ 20 CWT(CLEAN)/A AND VARYING PRICES

Price/cwt	\$18.00	\$20.00	\$22.00	\$24.00	\$26.00
Income/A	-\$88.00	-\$50.00	-\$12.00	\$26.00	\$64.00

NET INCOME @ \$22.00/CWT AND VARYING YIELD IN CWT/A

cwt/A	16	18	20	22	24
Income/A	-\$60.21	-\$36.16	-\$12.22	\$11.97	\$35.97

RELATIONSHIP BETWEEN YIELD CWT/A, TOTAL COSTS, AND COSTS/CWT  
AT \$22.00/CWT SELLING PRICE

cwt/A	16	18	20	22	24
Total Costs	\$412.21	\$432.16	\$452.22	\$472.03	\$492.03
Cost/cwt	\$18.74	\$19.64	\$20.56	\$21.46	\$22.37

MANAGEMENT INCOME FROM VARYING YIELDS  
@ \$22.00/CWT SELLING PRICE (rounded off)

Yield cwt/A	16	18	20	22	24
Cash Costs, Dep., Ints	\$395	\$412	\$430	\$448	\$466
Gross Income	\$352	\$396	\$440	\$484	\$528
Mgt. Income/A	-\$ 43	-\$ 16	+\$ 10	+\$ 36	+\$ 62

Consult your farm advisor if you have questions regarding this production cost study or dry bean production.

Farm Advisors Office  
Butte County

March 1977  
400c

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