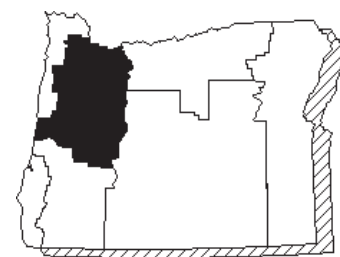




Enterprise Budget

Cauliflower, Willamette Valley Region



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This enterprise budget estimates the typical costs and returns associated with cauliflower production in the Willamette Valley region. It should be used as a guide to estimating actual costs and is not representative of any particular farm. The major assumptions used in constructing this budget are discussed below. Assistance provided by area producers is greatly appreciated.

Mention of trade-name products does not mean any endorsement of these products by Oregon State University Extension Service, and the fact that other products are not mentioned does not mean any discrimination against them. Substitute other manufacturers or formulations, as appropriate, for those included in this budget.

Land

This budget is based on 50 acres of cauliflower planted and harvested annually. The land is rented on an annual cash-rent basis for \$100 per acre. Cultural practices reflect the typical practices engaged in cauliflower production, but do not necessarily reflect the best or only methods of production. Irrigation costs are based upon hand-line systems valued at \$375 per acre including pump and well costs. Pumping costs are based on an electricity charge of \$2.65 per acre inch of water.

Labor

All labor is hired at a rate of \$7 per hour, which includes workman's compensation, unemployment insurance, and other labor overhead expenses. Labor hours for machinery operation are calculated by multiplying 1.21 times machine hours to allow for machinery setup, movement, and adjustment. All repairs are estimated separately from labor hours.

Capital

Opportunity costs of capital are charged at a rate of 6 percent for current, intermediate, and long-term

capital provided by the owner. Opportunity costs are treated as noncash expenses.

Machinery and Equipment

The machinery and equipment used in the budget reflects the typical machinery complement of a 300-500 acre row crop farm in the Willamette Valley. A detailed breakdown of machinery values is shown in table 1. December, 1987 replacement costs are used, assuming the machinery is half depreciated. Estimated machinery costs are shown in table 2. Costs per hour are calculated based upon whole-farm hours of machinery use. Costs per acre are calculated by multiplying costs per hour times the annual hours of use in cauliflower production shown in table 1.

Operations

The cultural operations are listed in the budget in the order they are performed. The pre-plant stage of production is from March to April, while the post-plant stage is from May to September. A 150 hp tractor is used to disc, plow, cultivate, rototill, and subsoil. An 85 hp tractor is used to fertilize, cultivate, plant, and harvest while a 50 hp tractor is used only for spraying. Harvest requires three 85 hp tractors with carts, a loading trailer, and 15 laborers. Custom hauling is used to transport the harvested cauliflower to the processor.

Budget

The cauliflower budget estimates total variable costs of \$847.68 per acre and total fixed costs of \$260.05 per acre, resulting in \$1,107.74 per acre total cost of production. The break-even price to cover variable costs is \$169.53 per ton, and the break-even price to cover all costs is \$221.54 per ton, assuming a 5 ton yield.



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ECONOMIC COSTS and RETURNS WILLAMETTE VALLEY REGION CAULIFLOWER, (\$/acre) 50 acres

<u>GROSS INCOME Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Your Cost</u>
Cauliflower	5.0	tons	335.00	1675.00	_____
Total GROSS Income				1675.00	_____
<u>VARIABLE COST Description</u>	<u>Labor</u>	<u>Machinery</u>	<u>Materials</u>	<u>Total</u>	<u>Your Cost</u>
PRE-PLANT					
Plow	2.82	6.09	0.00	8.92	_____
Disc	1.54	3.50	0.00	5.04	_____
Custom Liming	0.00	0.00	45.00	45.00	_____
Disc	1.54	3.50	0.00	5.04	_____
Harrow	1.21	1.81	0.00	3.02	_____
Fertilize	0.85	0.55	14.12	15.52	_____
Potassium	150.0 lbs x 0.08 = 12.00				
Boron	7.0 lbs x 0.303 = 2.12				
Pre-Plant Incorporate	2.12	5.13	24.08	31.33	_____
Treflan	0.19 gal x 32.00 = 6.08				
Lorsban	0.50 gal x 36.00 = 18.00				
Plant	80.47	12.73	118.25	211.45	_____
Plants	1.0 acre x 50.00 = 50.00				
Phosphorus	175.0 lbs x 0.28 = 49.00				
Nitrogen	55.0 lbs x 0.35 = 19.25				
Total PRE-PLANT				325.31	_____
POST-PLANT					
Irrigation	42.00	0.00	53.65	95.65	_____
Irrig. System	1.0 acre x 11.25 = 11.25				
Electricity	16.0 inch x 2.65 = 42.40				
Insecticide	1.13	0.74	14.50	16.37	_____
Monitor	0.25 gal x 58.00 = 14.50				
Cultivate	2.42	4.15	0.00	6.57	_____
Insecticide	1.13	0.74	13.84	15.70	_____
Pounce	0.031 gal x 155.00 = 4.83				
Meta-Systox R	0.25 gal x 36.00 = 9.00				
Fertilize	1.21	1.64	45.00	47.85	_____
Calcium Nitrate	500 lbs x 0.09 = 45.00				
Harvest	216.01	68.07	0.00	284.09	_____
Custom Hauling				48.00	_____
ATV	0.00	0.24	0.00	0.24	_____
Pickup	0.00	3.59	0.00	3.59	_____
Pickup 4WD	0.00	2.48	0.00	2.86	_____
Total POST-PLANT				512.97	_____
Operating Capital Interest				9.39	_____
Total VARIABLE COST				847.68	_____
GROSS INCOME minus VARIABLE COST				827.32	_____

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ECONOMIC COSTS and RETURNS
WILLAMETTE VALLEY REGION
CAULIFLOWER, (\$/acre) 50 acres (continued)

<u>FIXED COST Description</u>	<u>Unit</u>	<u>Total</u>	<u>Your Cost</u>
Land Lease	acre	100.00	_____
Machinery and Equipment Insurance	acre	10.25	_____
Total CASH Cost		110.25	_____
NON-CASH Cost			
Irrigation System-Depreciation & Interest	acre	34.88	_____
Machinery & Equipment-Depreciation & Interest	acre	114.92	_____
Total NON-CASH Cost		149.80	_____
Total FIXED Cost		260.05	_____
Total of ALL Cost		1107.74	_____
NET PROJECTED RETURNS		567.26	_____
Break-Even Price, Total Variable Cost	\$	169.53 per ton	_____
Break-Even Price, Total Cost	\$	221.54 per ton	_____

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Table 1. Machinery Cost Assumptions

Machine	Size	List Price	Current Market Value	Salvage Value	Useful Life	Remaining Life	Annual Use
Tractor	120 hp	\$51,207	\$28,164	\$5,121	8,000 hr	4,000 hr	22 hr
Tractor	150 hp	66,150	36,383	6,615	8,000 hr	4,000 hr	54 hr
Tractor	50 hp	16,726	9,199	1,673	6,000 hr	3,000 hr	20 hr
Tractor	85 hp	30,853	16,969	3,085	8,000 hr	4,000 hr	363 hr
Broadcaster		1,000	550	100	550 hr	275 hr	15 hr
Cultivator	10 ft	3,500	1,925	350	1,200 hr	600 hr	21 hr
Harrow		4,178	2,298	418	1,500 hr	750 hr	7 hr
Loading Trailer		2,500	2,000	375	3,750 hr	1,875 hr	300 hr
Offset Disc		7,878	4,333	788	2,400 hr	1,200 hr	18 hr
Plow	4-18	7,249	3,987	725	2,025 hr	1,013 hr	17 hr
Rototiller		11,996	6,598	1,200	1,280 hr	640 hr	13 hr
Sprayer		2,350	1,293	235	720 hr	360 hr	20 hr
Transplanter		5,000	2,750	500	1,400 hr	700 hr	50 hr
ATV	200 cc	1,750	1,750	350	10,000 hr	5,000 hr	250 hr
Pickup		8,252	4,538	825	60,000 mi	30,000 mi	1,364 mi
Pickup 4wd		11,381	9,000	1,707	45,000 mi	22,500 mi	1,023 mi
Truck		24,000	15,000	3,600	60,000 mi	30,000 mi	2,500 mi

Table 2. Machinery and Equipment Cost Calculations

Machine	Size	Costs per Hour				Costs per Acre			Hours or Miles per acre	Variable	Fixed	Total
		Fuel & Lube	Repair & Maint.	Depr. & Interest	Insurance	Total Cost	Variable	Fixed				
Tractor	120 hp	\$6.49	\$4.57	\$ 9.00	\$0.70	\$20.75	0.43 hr	\$ 4.78	\$ 4.19	\$ 8.97		
Tractor	150 hp	8.11	5.86	15.50	1.21	30.68	1.08 hr	15.10	18.06	33.16		
Tractor	50 hp	3.22	1.29	3.92	0.31	8.74	0.40 hr	1.82	1.70	3.53		
Tractor	85 hp	4.59	2.79	3.44	0.27	11.09	7.26 hr	53.58	26.93	80.52		
Broadcaster		0.00	0.81	1.61	0.10	2.52	0.30 hr	0.24	0.51	0.76		
Cultivator	10 ft	0.00	1.45	2.86	0.21	4.53	0.43 hr	0.62	1.32	1.94		
Harrow		0.00	1.85	3.08	0.23	5.16	0.14 hr	0.26	0.47	0.74		
Loading Trailer		0.00	0.50	0.75	0.05	1.30	6.00 hr	3.00	4.79	7.79		
Offset Disc		0.00	4.01	3.87	0.29	8.17	0.36 hr	1.46	1.51	2.97		
Plow	4-18	0.00	3.52	3.83	0.27	7.62	0.33 hr	1.17	1.37	2.54		
Rototiller		0.00	5.08	9.52	0.66	15.25	0.25 hr	1.27	2.54	3.81		
Sprayer		0.00	0.85	2.12	0.10	3.07	0.40 hr	0.34	0.89	1.23		
Transplanter		0.00	4.78	9.14	0.55	14.47	1.00 hr	4.78	9.69	14.47		
ATV	200 cc	0.02	0.03	0.41	0.00	0.46	5.00 hr	0.26	2.06	2.31		
Pickup		0.05	0.09	0.17	0.04	0.34	27.27 mi	3.63	5.51	9.14		
Pickup 4wd		0.06	0.09	0.33	0.04	0.51	20.45 mi	2.88	7.44	10.33		
Truck		0.42	0.17	0.65	0.07	1.31	50.00 mi	29.10	36.20	65.30		
TOTAL								\$124.30	\$125.19	\$184.19		



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