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Background & Assumptions

The cost and return estimate shown here is typical for growing leaf lettuce on a small scale in southwestern Idaho. Because each farm has a unique set of resources, production challenges, and level of productivity, costs will vary from farm to farm.¹ Users of this budget are encouraged to think about their individual operation, especially when calculating costs to be included in overhead.

The Farm

This budget is based on a farm with a total of five acres in production, with one acre planted in leaf lettuce. The farm uses a drip irrigation system that must be replaced every three years. Because the farm is small and diverse, very little machine labor is used.

Production Practices

Although the farm is not certified organic, it follows general organic production practices. In the spring the land is disked. Then compost is spread and the drip irrigation tape is installed. The leaf lettuce is planted in beds measuring 48" x 60", and planting is staggered over several weeks. Weeds are controlled with hand hoeing as needed.

The yield listed is the estimate of the national average for leaf lettuce in 2011, as published by USDA. It is also assumed that 75% of the leaf lettuce is sold in bulk, with the other 25% being sold in 5 ounce cartons to grocery stores. Pesticide costs have been multiplied by 0.25 because, on average, the field must be treated for pests one in four years.

Machinery, Land, and Labor

Custom hiring is used for land preparation and chemical applications. It is assumed that the farm owns a drum washer and water extractor, and their annual ownership costs are accounted for in the overhead category.

Labor to operate machinery is valued at \$16.25 per hour and general farm labor is valued at \$9.55 per hour. Labor rates include a base wage plus a percentage for Social Security, Medicare, unemployment insurance, and other labor overhead expenses. The land charge of \$150.00 is based on the 2011 NASS cash rent for irrigated cropland in southwestern Idaho. The interest rate for annual operating expenses is assumed to be 6.75%.

¹ Input prices, labor values, and interest rates were taken from the University of Idaho's Idaho Crop Input Price Summary for 2011 where applicable.

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Sample Leaf Lettuce Budget South Western Idaho Production

Items	Quantity per Acre	Unit	Price per Unit	Total Value/Cost per Acre
Gross Returns				
Leaf Lettuce - Sold in retail cartons	5,040	lb	\$ 4.00	\$ 20,160.00
Leaf Lettuce - Sold in bulk	20,160	lb	\$ 1.00	\$ 20,160.00
Total Gross Returns for Leaf Lettuce				
Variable Costs				
Seeds	4.0	lbs	\$ 166.30	\$ 665.20
Soil Amendments				
Compost	2	cubic yards	\$ 42.99	\$ 85.98
Approved Organic Chemicals	1	acre	\$ 37.50	\$ 37.50
Land Preparation				
Drip Irrigation Tape (Tape & Labor)	1	acre	\$ 1,169.85	\$ 1,169.85
Labor				
Custom Applications				
Primary Tillage	1	time	\$ 29.63	\$ 29.63
Bed Markout & Spread Compost	1	time	\$ 40.00	\$ 40.00
Spray Chemicals	4	times	\$ 2.21	\$ 8.83
Pest Scouting	8	hours	\$ 11.55	\$ 92.40
Planting	12	hours	\$ 16.25	\$ 195.00
Hand Hoeing	100	hours	\$ 9.55	\$ 955.00
Hand Harvest	1000	hours	\$ 9.55	\$ 9,550.00
Cleaning/Packing	777	hours	\$ 9.55	\$ 7,420.35
Misc.				
Clamshells (5 oz)	17,000	clamshells	\$ 0.20	\$ 3,400.00
Fuel	26	gallons	\$ 3.63	\$ 94.38
Interest on Operating Capital			6.75%	\$ 801.36
Total Variable Costs				
Fixed Costs				
Overhead	1	acre	\$ 40.00	\$ 40.00
Irrigation	1	acre	\$ 125.85	\$ 125.85
Land	1	acre	\$ 150.00	\$ 150.00
Total Fixed Costs				
Total Costs per Acre				
Net Enterprise Income				

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Sample Leaf Lettuce Budget South Western Idaho Production

Sensitivity Analysis					
Net returns for five different yields and prices					
Prices	Yields				
	19,000	22,000	25,000	28,000	31,000
\$ 3.50	\$41,638.67	\$ 52,138.67	\$ 62,638.67	\$ 73,138.67	\$ 83,638.67
\$ 3.75	\$46,388.67	\$ 57,638.67	\$ 68,888.67	\$ 80,138.67	\$ 91,388.67
\$ 4.00	\$51,138.67	\$ 63,138.67	\$ 75,138.67	\$ 87,138.67	\$ 99,138.67
\$ 4.25	\$55,888.67	\$ 68,638.67	\$ 81,388.67	\$ 94,138.67	\$106,888.67
\$ 4.50	\$60,638.67	\$ 74,138.67	\$ 87,638.67	\$101,138.67	\$114,638.67