

# KNOW YOUR COSTS

Take this test to see how your greenhouse is performing financially.

## ECONOMICS OF PRODUCING BEDDING PLANTS — 1987-88 SEASON SIX GREAT LAKES REGION WHOLESALE GROWERS\*

Expenses	Average	Per Unit (Flat & Baskets)	Per Sq. Ft.
Labor (Sub Total)	\$ 74,823.07	\$1.10	\$0.86
Operator/Family**	17,420.00	0.26	0.20
Hired	57,403.07	0.84	0.66
Equipment (Sub Total)	\$ 17,177.82	\$0.25	\$0.20
Repair & Supplies	2,407.08	0.04	0.03
Gas, Fuel & Lube	3,835.17	0.06	0.04
Depreciation	5,626.93	0.08	0.06
Interest on Investment***	5,308.65	0.08	0.06
Building & Greenhouse (Sub Total)	\$ 53,881.23	\$0.79	\$0.62
Repairs	10,925.75	0.16	0.12
Insurance	4,918.67	0.07	0.06
Depreciation	19,805.57	0.29	0.23
Interest on Investment***	18,231.24	0.27	0.21
Land Charge (Sub Total)	\$ 11,446.19	\$0.17	\$0.13
Taxes	10,038.50	0.15	0.11
Interest on Investment	1,407.69	0.02	0.02
Crop Expenses (Sub Total)	\$107,440.00	\$1.58	\$1.23
Fertilizer & Chemicals	13,717.84	0.20	0.16
Seeds and Plugs	17,965.33	0.26	0.21
Supplies (Flats, Soils, etc.)	70,679.33	1.04	0.81
Interest (Operating Debt)	5,077.50	0.07	0.06
Marketing (Sub Total)	\$ 2,772.34	\$0.04	\$0.03
Utilities (Sub Total)			
Heating & Electric	\$ 39,922.83	\$0.59	\$0.46
Total	\$307,463.48	\$4.52	\$3.51
Sales	\$335,009.50	\$4.93	\$3.84

\*The Average investment for the six greenhouses was \$332,299.00

\*\*The operator/unpaid family labor is computed by multiplying two times the minimum wage rate \$6.70 by the estimate of hours of unpaid operator and unpaid family labor.

\*\*\*Interest on investment = 9% x Average Investment in Category.

*Editor's Note: This is the second of a four-part series on greenhouse financial management.*

by GALE ARENT and  
W. CONARD SEARCH

**E**ARLY in 1989 we collected and analyzed financial data for the 1987-88 crop year from six wholesale bedding plant operations in the Great Lakes region. The purpose of our study was to:

- Demonstrate a financial analysis process that would be helpful to all greenhouse managers;

- Provide insight into the current profitability of the industry in the region;

- Continue a long-term study that we began in 1976 to develop cost-of-production trends; and

- Present accurate data to growers that could be used to determine appropriate pricing strategies for bedding plants.

The greenhouses in this study reflected the diversity of the growing region. For example, the average business size was 87,509 square feet, the structures ranged from older individual houses to modern gutter-connected facilities, and an average of 68,094 flats and baskets were produced in the six greenhouses.

All income and expenses derived from the delivery of crops were removed from the analysis to limit the study to the economic factors associated with bedding plant production.

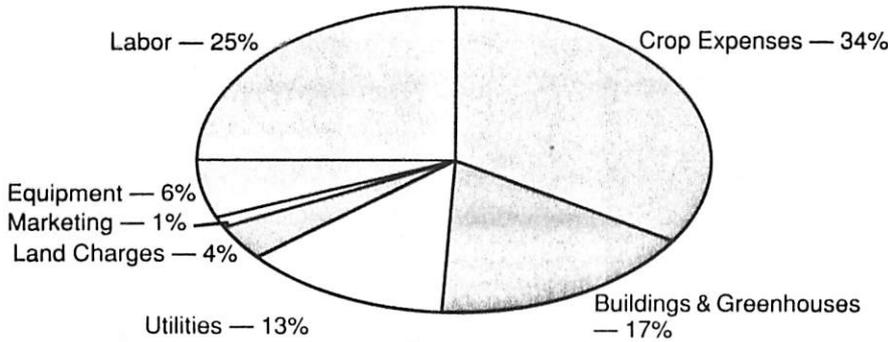
The breakout of the cost of producing bedding plants is summarized in the table at left.

### Increasing Profitability

Our conclusions?

The pie graph (above right) is very revealing. Based on our study, we've determined that profitability can be increased by either generating more income (additional product, less crop

### Cost of Production — 1988



loss, or higher prices) or reducing production costs.

Conversely, the greatest opportunities for cutting costs can be found in

the categories of greatest expense — namely, supplies, buildings and facilities, labor, and utilities.

The ultimate question, though, is:

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How well is the industry doing financially?

The answer for the average greenhouse in this study is determined by applying a key economics test to the financial data collected. These are based on the formulas presented in the first article of this series (GG January 1990) and are based on per production unit measurements (unit being a flat or hanging basket).

Here is the test:

**Return to Management and Risk**

\$ 4.93 (Sales)  
 - 4.52 (Cost of Production)  
 \$ .41

The 41¢ per production unit represents 8.3% of the sales as returned to management and risk.

**Return to Operation Labor and Management**

\$ .41 (Return to Management)  
 + .26 (Non-Cash Charge for Labor)  
 .67 (Labor Income per Unit)  
 x 68,094 (Number of Units)  
 \$45,622.90 (Labor Income)

Remember that the business is also generating additional income to cover depreciation (\$25,431.50) and interest on owned equity (\$15,012.54). Together these represent an additional \$40,444.04 for the average greenhouse in this study.

**Return on Investment**

\$ .41 (Return to Management)  
 + .44 (Interest on Investment)  
 .85  
 / 4.88 (Total Investment per Unit)  
 17%

17% represents a good return on investment. The investment was based on the fair market value of assets.

**Return on Net Worth**

\$ .41 (Return to Management)  
 + .22 (Interest on Owned Assets)  
 .63  
 / 2.44 (Owner Net Worth "Equity" per Unit — 50% of Investment)  
 26%

One of the most positive aspects of this study is the fact that return on net worth (26%) is greater than return on investment (17%).

This is a significant incentive for the greenhouse owner to acquire additional equity in the business, so that as the owner approaches retirement age, the owned business assets can become the basis for a fiscally sound estate plan. **GG**

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