

# BULLETIN

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## Growers' Increasing Use of Online Benchmarking System

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**F**inancial benchmark analysis is a common and longstanding method involving the use of key indicators or metrics to evaluate a company's operational and financial performance over time and in comparison to industry averages or benchmark values. Ideally, comparisons should be made with the leading or most profitable firms that are presumably following best business practices. Think of this as a checkup with your "financial" doctor to determine the health of your business.

Comparison of a company to industry benchmark values can assist in identifying a company's strengths and weaknesses to capitalize on its competitive advantages. This comparison can also serve as a guide for important decisions such as business expansion, financing, marketing strategies, operations planning, and product selection.

**Continued on page 10**



## Inside this Edition...

Selling Landscape: What Successful Growers Know	1	How Clean Is Your Water? Choosing a Water Treatment System	4	Best Practices for Retail Display of Fresh Cut Roses and Lilies	25
Growers' Increasing Use of Online Benchmarking System	1	What Sprung at Spring Trials	13	Floriculture Programs at North Carolina State University	27
Words From Washington	2	Controlling Your Costs	22	Water Quality & Its Effects on Nursery Crops	29
		The Benefits of Plants and Landscaping	23	OFA News	30

## Growers' Increasing Use of Online Benchmarking System

Continued from page 1

Benchmark analysis can assist in identifying common business problems such as low pricing, excessive costs, disproportionate waste or shrinkage, poor cash flow, undercapitalization, and imbalanced debt structure. When used effectively, this information can help increase profitability, control costs, reduce the risk of business failure, enhance efficiency, and boost productivity.

Traditionally, financial benchmark information is compiled through industry surveys. With the power of the Internet, this process can be made more efficient and significantly accelerated to provide more timely information to users. An Internet-based financial benchmark system for the greenhouse and nursery industry was developed through a partnership between the University of Florida and the Florida Nursery Growers and Landscape Association (FNGLA). The system was originally developed in 2004 but has recently been modified to incorporate new features. This free system is available at <https://hortbusiness.ifas.ufl.edu/analysis>.

The Internet-based system consists of data entry forms, a historical database of business records, a report generator, and a security-encrypted Web site user interface. Users of the system can choose from a series of menus to create reports that summarize benchmark information in the database for selected nursery commodities or production systems, operation sizes, profitability levels, locations, and years.

Commodities or production systems represented in the database include greenhouse tropical foliage, shade house tropical foliage, container- and field-grown woody ornamentals, potted flowering plants, and cut foliage. Categories have also been set up for plugs/liners, bedding plants, and herbaceous perennials; other nursery commodities or production systems may be added as requested by users.

Within each plant category, information is also available for subgroups of large, small, and highly profitable companies. Large firms are defined as those having annual sales of \$2 million dollars or more, while small firms had sales of less than \$250,000. Highly profitable firms had a rate of return on assets of 15 percent or greater. Users can also view time series information for any group in three separate periods (years).

The system requires a minimum of five valid records in the database to view averages for a selected combination of attributes (commodity/production system, firm size, profitability, location, and year), to protect user confidentiality. If the user does not specify any of these selection conditions, the system automatically defaults to all records available.

### Entering Data into the System

The real power of this system is that users can enter their own financial data for customized analysis of their company in

comparison to industry benchmarks. Users of this feature must create an account with their general company information (name, address, telephone, email, etc.) and select a username and password to enable access. Security encryption prevents unauthorized access to confidential information. Clients can view reports for up to three years of their own company or any combination of industry average benchmarks.

### Reports Generated

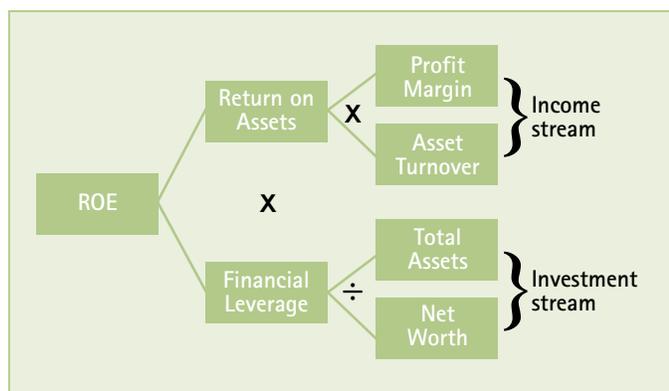
Reports generated consist of a series of tables and charts that present information for comparison of up to three industry groups or individual firm records. Graphical bar charts are also available for key indicators to help visualize critical differences. Information provided includes:

- **Scope of business operations:** annual plant sales, value of production; gross nursery area and net usable production area; number of fulltime equivalent employees; and value of owned and leased capital.
- **Income statement:** nursery sales, miscellaneous income, total income; expenses for labor, supplies, equipment/facilities, overhead, capital, management, and 32 detailed items; gross income; and net income.
- **Monthly sales:** as a percentage of total annual sales. Statement of financial position: current and long-term assets; current and long-term liabilities; net worth.
- **Productivity and efficiency indicators:** sales and value produced per-square-foot and per-acre of growing space; sales and value produced per fulltime equivalent employee; and capital managed per acre and per employee.
- **Financial ratios:** profitability, turnover, liquidity, and solvency.
- **Cost analysis:** costs per-square-foot, costs per-unit sales, and cost per-unit value produced in major expense categories (labor, supplies, facility and equipment, overhead, capital, and management).

### Strategic Profitability Model

The online benchmarking system uses the Strategic Profit Model (SPM) as the base model for analyzing growers' financial records. The Strategic Profit Model, also known as the DuPont Model, gives a visual view of a firm's finances and provides the ability to understand and analyze financial performance and return on investment (Figure 1).

Performance measures such as operating profit margin, asset turnover ratio, return on assets, and return on equity are extremely valuable to a greenhouse manager, particularly in times of economic stress. These measures can be used to see how profitability is impacted by marketing, production, investment, and financing decisions. Operating profit margin shows the



**Figure 1.** The income and investment stream of the strategic profit model.

amount each dollar of sales yields to net income. Asset turnover measures the revenues generated per dollar of assets and indicates how efficiently the business uses its assets. Return on assets (ROA) is a measure that managers can use to determine if capital is generating an acceptable rate of return. Lastly, return on equity helps managers assess whether or not the debt of the greenhouse business is working for or against them. Together, these measures help to show how well the business is performing financially. These four measures, succinctly organized in the strategic profit model, are available from the reports generated by the online benchmarking system.

### How to Use the Reports Generated

For example, assume that a grower has an accrual adjusted income statement to obtain net income and a cost-basis balance sheet to obtain owner equity, then return on equity (ROE) is an easy metric to calculate using the simple formula of net income divided by owner equity. However, viewing the ratio separately, rather than in combination with other metrics, does little to inform management on how to improve performance.

If ROE is found to be less than desirable, or has declined recently, the SPM suggests two basic approaches to improve performance. Analysis can be done to determine whether the ROE can be improved through the income stream or the investment stream, as shown in Figure 1.

Initially, most growers may be concerned more with the income stream than the investment stream because production decisions made in the greenhouse business will usually have a more direct effect on the variables in the income stream. These income stream variables include such things as selling price, production-related expenses, net sales, profit margin, and the use of assets. If the grower discovers a major weakness in their ROE, backtracking through the income stream and determining where changes can be made will easily identify a set of potential reasons for the weakness.

For example, if the grower discovers ROA is unsatisfactory, this weakness can be traced back to asset turnover and net operating profit margin since these are the major components of ROA. The analysis can be further tracked to net sales and total costs if the operating profit margin is determined to be the main reason for the low ROA. Net sales could be improved by either increasing the price received (better marketing and

differentiation strategies) or by increasing the volume of product sold (increasing yields or productivity; selling to larger buyers; finding new markets, etc.). Likewise, operating profit margin can also be enhanced by reducing costs of production (through the use of technology, automation, lean flow techniques, etc.). An astute grower will most likely consider all of these actions (Figure 2, page 12), but the Strategic Profit Model offers an opportunity to do some comparisons and determine what options will most benefit the producer.

The second approach to improving ROE, through the investment stream, culminates in the financial leverage multiplier (assets divided by equity/net worth). Increasing financial leverage means that the firm uses more debt financing relative to equity financing. Interest payments to creditors are tax deductible, but dividend payments to any shareholders are not. Thus, a higher proportion of debt in the firm's capital structure can lead (mathematically) to a higher ROE. Financial leverage benefits diminish, however, as the risk of defaulting on interest payments increases. So if a greenhouse business takes on too much debt, the cost of debt rises as creditors demand a higher risk premium, and therefore, ROE decreases. Increased debt will make a positive contribution to a firm's ROE only if the firm's ROA exceeds the interest rate on the debt.

Most of the backtracking through the investment stream will follow total assets. From basic accounting, we know that total assets are equal to total liabilities plus net worth (otherwise known as owner equity). This simply means all assets are either claimed by creditors or owners – allowing the investment stream to be broken into two additional sections, total debt and owner equity. It is important for a grower to understand what changes occur in ROE when liabilities, equity, and assets are restructured.

For example, a grower might hypothesize that by decreasing the business' debt load, profitability will increase because the interest expense of the business will decrease. However, by analyzing the investment stream of the Strategic Profit Model, the grower will realize that if this reduced debt load requires an increase in owner equity to maintain the asset base of the business, the financial leverage multiplier will decline, and the ROE may also decline. Again, by performing simple comparisons, the grower will see the consequences of different financing decisions.

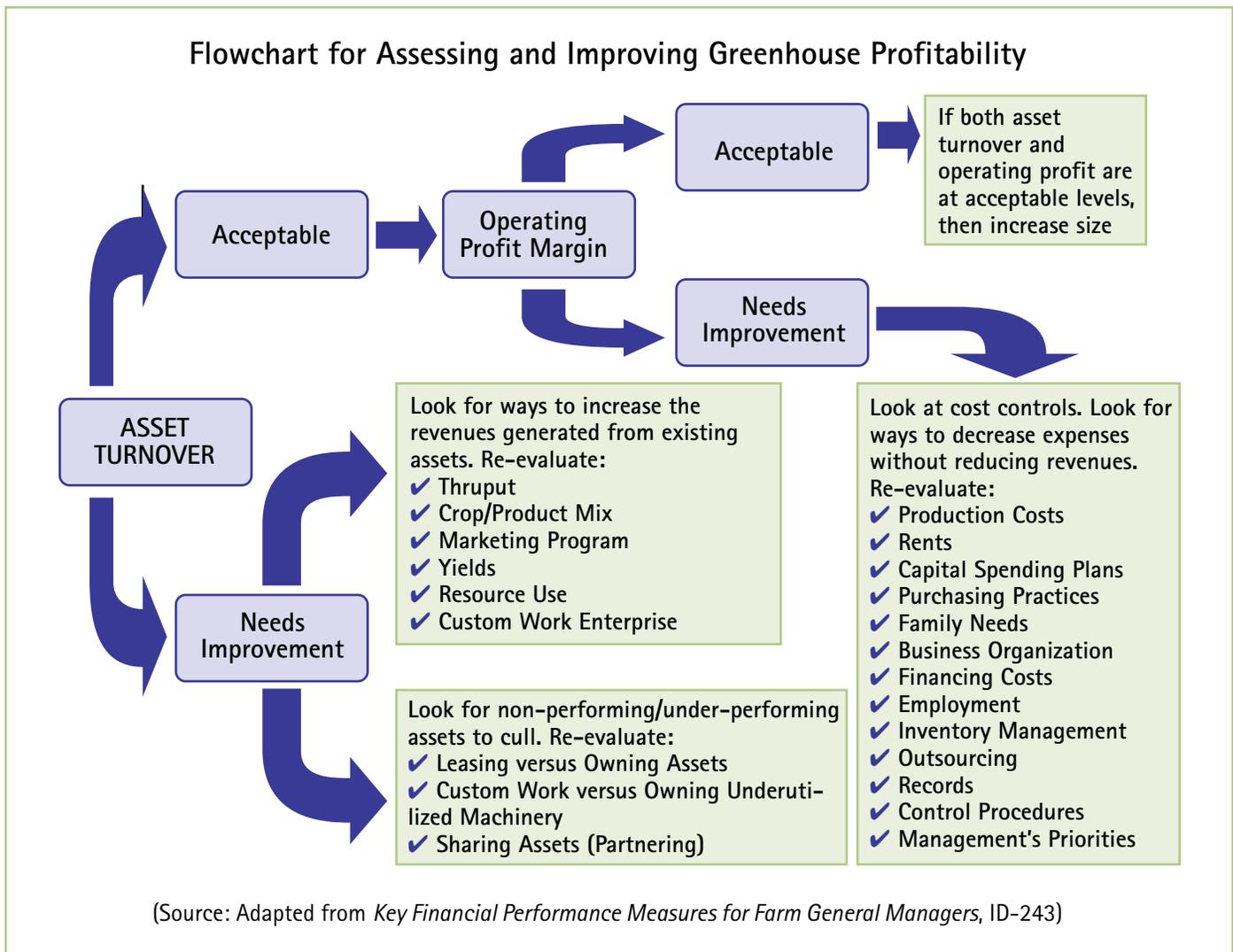
### Summary

Profitability (or the lack thereof!) has three parts: operating efficiency (profit margin), asset use efficiency (asset turnover), and financial leverage (equity multiplier). The successful greenhouse manager must be able to make effective decisions influencing all three elements. To survive at all, the firm must be effective in its use of revenues to generate profits (operating efficiency – profit margin). To generate profitability, the firm must utilize its investment in assets wisely to convert revenues to profit (asset turnover efficiency). Lastly, if a firm can generate a return on assets greater than its net borrowing costs, it can return profits to investors more effectively by financial leverage – using borrowed money to generate profits rather than tying up owners' funds (equity multiplier). Needless to say, this must be analyzed very carefully.

**Continued on page 12**

# Growers' Increasing Use of Online Benchmarking System

Continued from page 11



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