Use benchmarking to improve employee performance

Companies can use operational benchmarks to improve employee productivity and operational efficiency.

Labor is essential to output. A company can plan production goals, but if the rate of production or the quality of production decreases, the company’s business plan and even its existence can be jeopardized. Using the basic concepts underlying benchmark analysis can provide the information necessary to make more educated decisions on setting production goals, ascertaining costs associated with labor, performing accurate employee evaluations and keeping up with net income predictions.

In order for any labor assessment plan to be effective, line managers and employees must be involved in the process. There must be written objectives, a clear evaluation process, a set of expected outcomes and a set of benchmarks and metrics. More importantly, managers need to set realistic, achievable performance goals. This can be difficult unless the owner/manager knows how well people, equipment and facilities work together.

Setting, measuring and re-evaluating performance benchmarks are effective ways to manage expectations and outcomes.

Performance metrics

There are few sources for greenhouse operational metrics and almost none for employee performance metrics. Given the business and production diversity among greenhouse operations, “competitive” or “cross-sectional” metrics are not likely going to be as applicable as a company’s own historical or internal metrics.

The metrics have to be developed in order to use them. This takes time and management resources. Most greenhouse owners don’t have the time to observe and capture the small activities. Successful benchmarking requires delegation. Every manager and employee should be responsible for providing metrics that pertain to their areas of responsibility. The job of the owner/manager is then to summarize and evaluate the metrics.

Successful companies have strategy meetings, employee goal-setting sessions and performance-based incentive/reward programs. These companies also solicit employee feedback after performance results are measured. Determining and evaluating operational metrics enhances profitability.

Setting goals

The most common way to approach employee performance is on an individual basis. Given the versatility and variability of greenhouse tasks, it is not always possible to generate generic output measures. However, certain performance aspects, including attendance, being on time, disciplinary issues and chronic failure to reach a task goal on time, apply to most activities.

A metric measure could be designated as a simple ratio:

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\text{Number of goals not met/month} / \text{Company average goals not met/month}
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Performance goals should be measured daily by managers to determine company-wide performance and/or on-goal status. If measured, these can provide data on how individuals are doing their
part in achieving specific goals. These goals are fairly simple to measure by a line manager or a project-dedicated punch clock, which can acquire the necessary data.

Using the same ratio noted earlier, a comparison can be made for an employee’s unexcused absences, late arrivals, improper/extended breaks or any other parameter that affects a line manager from accomplishing the daily goals. Production-related activities are easy areas to establish goals and benchmarks by month, week or season. The difficult part is establishing the goals and sticking to the evaluation process. This can be achieved by holding monthly meetings to discuss how well the company is accomplishing its goals. Displaying summary charts in prominent places in employee gathering spots is another way to disseminate benchmarking information in an unobtrusive way.

One area that has potential for generating significant savings is determining how efficiently shipping teams are performing. Areas of improvement could include order picking, driving precision and driver time to unload and stage deliveries. Employees who perform these tasks are often not in the visual range of a supervisor. Other ways must be found to document efficiency. Having a driver document the unloading/staging time can increase route efficiency and may even allow the addition of delivery stops. Implementing planned routes and assessing how often a driver deviates from a route is possible using

**An internet-based horticulture benchmarking system**

An internet-based financial benchmarking system (Horticulture Business Analysis System), was developed for the greenhouse and nursery industry through a partnership between the University of Florida and the Florida Nursery Growers and Landscape Association. The system, available at https://hortbusiness.fas.ufl.edu/analysis, is free of charge to all greenhouse and nursery growers.

This 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 (state, county) and years.

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global positioning systems/geographic information systems and can result in a reduction in fuel usage. Even determining how efficiently orders are pulled and the average time between units pulled is important.

If a line manager sets up a benchmark metric (i.e., units loaded per hour or per day) and makes comparisons for similar crops, same-week or same-month time frames, efficiency can be determined and improved. Whether a manager or individual employees, or both, are evaluated is up to the business owner.

Financial employee metrics

How many employees does a greenhouse need to operate successfully? Specific greenhouse data is scarce. An example of this data is the “New York Greenhouse Business Summary and Financial Analysis” (Pub. EB-2003-12, Cornell University; http://hortmg.tet.cornell.edu/programs/hortbusiness.htm). This study provides information on the staffing of New York greenhouses, including how many workers are employed based on company size.

The authors set up a data collection process that accommodates the variable nature of greenhouse income and production by recording sales, income, etc., by providing all metrics on a per-square-foot-per-week basis. Just as a greenhouse owner would assign overhead costs on a per-square-foot-week basis to a greenhouse bench, a similar measurement could also be used to evaluate the level of staffing.

In the New York study, measurements were made of net income per square foot of production space times the number of weeks the greenhouse was in production. The end result is a fraction of a dollar per square foot per week. New York growers averaged $0.034 dollars (3.4 cents) net income per square foot of used production space per week in a given year. Since the square foot production space and number of employees are known, an owner can begin to set up some ratios to help determine the necessary staffing levels.

Most greenhouse companies have both part-time and full-time workers. In order to compare the data from different greenhouse operations, the data has to be “normalized” or brought to a common basis. This can be done by establishing a unit called a Full Time Equivalent (FTE) or Worker Equivalent (WE). Full Time Equivalent accounts for each worker by the number of hours worked and evaluates staffing and efficiency parameters based on employee hours or equivalent eight-hour employee hours worked.

The greenhouse operator must first determine the total hours paid for labor by the company in a given year. Assum-
Employees need to be a part of the task assessment process for the performance process to work.

Once performance benchmarks are established on paper, data needs to be presented in such a way that all employees understand the status of performance and production goals.

**Real world example**

For example, assume a 56,000-square-foot greenhouse employs eight full-time and 19 part-time workers.

Total labor hours paid per year divided by 2,760 hours (assuming a 55 hour work week) = the number of worker equivalents per year.

Full-time labor hours: 8 workers x 50 weeks of operation x 11 hours per day x 5 days = 22,000 labor hours.

Part-time labor hours: 19 workers x 36 weeks x 20 hours per week = 13,680 labor hours.

Total labor hours paid: 22,000 labor hours + 13,680 labor hours = 35,680 total hours paid.

Full Time Equivalent: 35,680 total hours paid ÷ 2,760 hours = 12.9 workers.

The next step is to compare the Full Time Equivalent workers with greenhouse production space (e.g., 56,000 square feet), which would be 12.9 workers/56,000 square feet. The Cornell study found that New York greenhouses averaged 8.9 Full Time Equivalent for a 40,000 square foot greenhouse.

To adjust for the difference in production space, 40,000 square feet ÷ 56,000 square feet = 0.714.

Full Time Equivalent: 12.9 x 0.714 = 9.2 Full Time Equivalent workers. This number is very similar to the staffing levels found in New York greenhouses (8.9 Full Time Equivalent workers).

For a growing operation with a larger Full Time Equivalent, the company may be overstaffed, unless it has a higher net income. For a company with a lower Full Time Equivalent, the business could be either very efficient or understaffed depending on net income.

To compare the 56,000 square foot greenhouse company's net income with the New York greenhouse operations in the Cornell study, divide the net income from the example greenhouse by the Full Time Equivalent.

For example, $80,000 net income per year ÷ 12.9 Full Time Equivalent workers = $6,201 per Full Time Equivalent worker.

In 2003 the average for a New York greenhouse was $8,056 per Full Time Equivalent worker. It is possible that the example greenhouse is not as efficient at producing cash as the average New...
Management

Managers must set realistic and clear goals and objectives when establishing performance benchmarks.

York greenhouse, given its larger size and number of employees. This comparison allows management to determine whether costs may be higher, sales efforts are lacking or worker efficiency is lower.

A company can also set benchmarks for internal financial components, including:

- Labor as a percent of sales = Total labor cost / Total revenue (New York greenhouse average is 22 percent)
- Operating expense ratio = Total variable costs / Total revenue (New York data suggests 71 percent of the average sales price is needed to cover direct crop costs)
- Sales per square foot = Total sales / Square feet of production space (New York data suggests $14 per square foot)
- Net income per Worker Equivalent = Net income / Number of Full Time Equivalent workers (New York data reports just over $8,000 per Full Time Equivalent worker per year for a 40,000 square foot greenhouse)

This example established a first-year benchmark for several of the company's labor costs. By continuing to track employee-based metrics, the company will be better positioned to make managerial decisions regarding efficiency. Lean Flow implementation and other production-related decisions.

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