

## Ideas for Efficient Production of Container-Grown Plants

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The last 10 years have brought with them a wealth of new technologies, production practices, and types of equipment to enable us to grow our varied crops more efficiently with higher quality. As we begin using these new "high tech" methods of plant production, we may overlook those other techniques that we can develop within ourselves that are vitally important to success in our business. I am speaking of our skills as managers of people, working to meet production schedules, producing a quality product at a competitive cost, resulting in a reasonable profit for our companies.

There are many costs associated with operating a nursery business. Tractors, greenhouses, canning machines, computers, and other production equipment all cost money to operate and maintain. Better efficiencies in these areas will certainly result in a stronger bottom line. There is one major area in our businesses that if properly managed will yield the most at year end. That area is labor.

At Monrovia Nursery Company, labor makes up roughly 33% of the operating budget each year. With such a large percentage of total cost going to this one area, any improvement in efficiency can greatly affect overall profitability. With this in mind, we are constantly looking for new and better ways to do things. We are also looking at our work habits to see if they, too, need improvement.

Today, I am going to be speaking about those "other" things that we may not often think about when we consider how we produce our nursery products for a price-conscious consumer.

First and foremost, as nursery owners or managers, we must challenge ourselves to be creative. We must be able to think farther out than the simple tools available to us to do our jobs each day. Often, the solution to a productivity problem involves much more than the work habits or the speed of the crew in the field. It may involve the overall attitude of the workers toward their jobs. It may also involve the system of supervision being used by the company. As managers, we must be keen to look at all these possibilities to gain greater efficiency in our businesses.

At the Oregon location of Monrovia Nursery Company, we were fortunate to be able to build a nursery operation from the ground up, and, from the very beginning, train the first workers hired in what we feel are proper work habits. I happened to be the very first worker hired and someone then mentioned to me how much easier it is to build a business based on good work habits than it is to try to change the work habits later of many people who were not trained properly. I have never forgotten that message.

We, in the United States, have read much lately about the great success of many Japanese companies due in part to their management philosophy of "Team Building". Teams are very important in the nursery business also. Our employees want to know that they are part of the company, that their work is important, and that their efforts are appreciated. They want to be a part of our "Team". At Monrovia Nursery Company—Oregon, we often call our workers "players". In the

shop and maintenance areas, we have what we call the “Blue Team”. This team is called out when there is a major breakdown and repair is needed. The Blue Team works as hard as they can and stays until the job is done. In the management area, we have the “Eagles”. The Eagles are the problem solvers of the nursery and their primary goal is to find positive solutions to problems that affect successful operation of the business. The Eagles try to come up with ways to inspire our employees to succeed in growing and shipping our crops efficiently. Over the past few years, we find ourselves spending more and more time on these team building activities.

We began setting goals at Monrovia Nursery Company several years ago. We now routinely make goal setting a part of our business in all departments. Setting goals is a cooperative effort within each department as to the priorities for a given time period. Once the goal is set, everyone works to bring the goal to fruition. Last year we took goal-setting a step further. We were concerned that while we do a good job in producing plants for reasonable cost, it takes much too long to load a semitrailer and we felt that we had no control over the outcome. We tried goal-setting. When the truck arrived in the morning, we gathered the crew and looked over the load. We decided together how many hours it should take to load the truck. We then marked the side of the truck with a marker showing where the crew should be each hour in order to finish the truck on time. If the crew stayed on schedule, they knew when they would be going home that afternoon. It worked! We now set goals for every semitrailer that we load and we have just about eliminated overtime on the loading docks. This, as a result of simply giving the loading crew the tools they needed to feel like they had control over their progress.

Employee pride is a very important part of production efficiency in the nursery business. When employees take pride in their work, they also take interest in and are more accepting of new ideas that are aimed at increasing productivity. We, as managers, need to constantly work at building employee pride in our companies, facilities, and products. We can build employee pride by letting employees be a part of the solutions to new problems or challenges around the nursery. Often the best solution comes from those working most closely with the processes involved.

In order to increase production efficiency around the nursery, we must make a regular habit of looking at all activities for possible improvements. We must develop our ability to question first if an activity is really necessary, and second, if there is a better way to carry out the activity in question. In short, we need to be able to question the many activities that occur in our businesses each day and try to either eliminate or improve them.

Planning is perhaps the most basic component of managing production activities for higher efficiency. We all need to start with a plan. The plan should envision the entire activity, beginning to end, and all the other factors that might affect it in some way. Tools, equipment, manpower, and process are all included in the plan. The plan can always be changed, but it is important to have some sort of idea how the work should proceed and what to expect when the work is completed. Unplanned work is seldom efficient.

Our supervisory skills themselves are extremely important. We should try to lead by example. Efficient workers are inspired and lead—not threatened or intimidated. The “gentle but firm” approach is usually the best. We should be very short and clear in our instructions to workers. Examples should be set out ahead

of the crew if possible. At Monrovia Nursery Company, the pruning supervisor walks the roads with the crew leaders and prunes samples and sets them out prior to the arrival at a division of the rest of the pruning crews.

Once the work has begun, it is very important that the supervisor stays with the crew for a time to watch the work in progress and monitor both speed and quality. Any corrective action should be taken at this time. If the crew is working to the satisfaction of the supervisor, they should be told so and then the supervisor may leave for a short time. As the work progresses, the supervisor needs to continue checking back at lengthening time intervals through to completion. If the workers are doing a good job, they should be told so. It can be a humiliating experience for both the supervisor and employees to go back and do a job over again because it wasn't properly explained or checked on.

At Monrovia Nursery Company—Oregon, we have a concept that we call "Working In Circles". Working In Circles describes a smooth work flow, where a crew knows what work there is to do, how the work is to be done, and what additional work there is to do when the job at hand is completed. In the planting or canning department, there should be tractors bringing in liners to be planted, tractors hauling newly planted #1 pots to the field, people unloading from trailers these newly planted pots, and tractors hauling empty trailers back to the canning machines for more product. This all happens in a "circular" motion—hence "Working In Circles".

Employees can be rewarded in many ways. Money is at times a strong motivator and many companies have adopted piece work programs as an incentive to higher production. At Monrovia Nursery Company, we have been reluctant to pay on piece work for several reasons, but mainly because we have a hard time defining where and where not to use it. We have a concern that some employees may feel that they are not being treated fairly because their department is not paid on a piece work basis while other departments are.

We have had success at motivating employees in other ways. Several years ago, we were concerned at what we felt was low production of our cutting crews in the Propagation Department. We were looking for ways to increase the daily production of the department. Piece work was discussed, but we decided to try something different. We first explained to the workers in the cutting department what the daily standard was to be. We then prepared a chart showing all the names of the employees in the department followed by the days of the week. On the same chart we posted the daily standard required. Each day, we posted each individual's production on the chart. Those employees who made the standard were acknowledged and those who did not were worked with. Daily production did increase with this new system. People began to show interest in how they were doing in relation to the others in the department. One day the crew leader had a new idea. He went down to the stationery store and bought a small packet of those gold stick-on stars that our teachers used on our papers in elementary school. That evening, he placed that star behind the name of the employee with the highest production. This simple recognition of the efforts of an individual results in additional production increases. Rewards do not have to be monetary to be effective.

Managers and supervisors need to look at their supply of tools and how that supply can greatly affect worker efficiency. Tools should be available in ample quantity and be in good repair. Shovels need to be the proper type. Pruners need

to be sharp. A good pair of shears is expensive, but the cost of those shears pales in comparison to the cost of lost time and reduced productivity that results when they are dull and do not cut well. At our nursery, we encourage employees to take proper care of their pruners, but we gladly issue them another when they become even slightly dulled. A good tying machine also is such a labor saver that it should be replaced when the workers begin having trouble with it. It is not worth the down time to keep struggling to repair it.

Support personnel play a key role at times in the efficiency of the work of a large crew. At Monrovia Nursery Company—Oregon, mechanics start work in the early morning hours to fuel tractors, repair or maintain canning machines, or prepare equipment for the crews who arrive hours later. If crews had to temporarily stop work as the shop performed these activities, much work time would be lost and efficiency would be very low indeed. Maintenance and other functions need to be scheduled around the production activities, not the other way around.

Whenever possible, jobs should be combined or unnecessary ones eliminated. Many times at the nursery, I have seen the spacing crews space a large block of can tight plants only to be picked back up and sent to canning the very same week. If the supervisors had done a good job of communicating, those plants would have been sent directly to canning and the cost of “double handling” the plants saved. Plants that need to be pruned should be pruned before spacing or canning where the pruning debris can be cleaned up for less cost. Fast growing cultivars should be spaced right off the canning machine rather than 2 weeks later after they have been set can tight. There are many opportunities to cut out or combine jobs. This greatly increases efficiency and lowers production costs.

Uniformity is a very important part of the production process that can affect both sales success and the costs of production for a wholesale nursery. Most companies appreciate that uniformity is an important part of quality, but many may not be aware of how it can affect efficiency also. Plants can be canned, staked, or pruned in a uniform manner for the same cost as for an irregular, crooked, or random one. Poor production practices produce irregular, uneven plants of poor quality that take a tremendous amount of time to assemble and groom in the field by crews trying to select quality plants of even sizes. Crews spend unnecessary time combing an entire bed of plants for a few of the same size to fill an order. As these crews struggle to assemble the order, the truck sits unloaded and may not finish being loaded until late in the evening. For a large scale nursery, this has the effect of creating a tremendous backlog of unfinished trucks during the shipping season. Overtime hours are increased and mistakes are made by tired workers. Production costs are increased when the plants in the field are endlessly consolidated as they are not all saleable. When the plants are uniform, they can be assembled “row run” much more quickly with little or no consolidation required. Mowers, pruning machines, direct sticking, vacuum seeders, and other mechanization can all contribute to a more uniform product, but ultimately, uniformity comes through excellent supervision.

Agriculture is changing. The nursery business is now competing for workers with restaurants, manufacturing, and construction interests. We cannot afford to keep turning over employees and retraining others. Skilled, efficient workers are valuable workers and we need to recognize that when we think of wage and benefit programs. The labor pool is growing smaller and we as owners and operators need

to plan for this.

Lastly, we must be extremely vigilant in our approach to managing our businesses for greater efficiency. Crews need constant supervision and we ourselves need to ask the question each day, "am I doing all that I can do to control costs by operating efficiently?"

**BRUCE BRIGGS:** In studying "the best of ideas", you mentioned you like to see your workers question everything everyday. How can you do that and maintain motivation, and also keep respect for the person criticizing and the person giving advice?

**MARK BUCHHOLZ:** What I mean is to challenge ourselves to really see if those things we are doing are necessary, to see if the solution we are offering to the problem is the right one. We think of it in terms of the training of a team—to never feel that we have "arrived"—that we are always learning.