

Systems for Success: Mechanization of B&B Production®

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INTRODUCTION

I compare our business to a large wheel with six spokes (Fig. 1). The hub is time management. We have scrutinized every step of our operation to eliminate wasted time and wasted steps. We've also invested in equipment that reduces the labor needed for each task we perform.

The Wheel of Success. The six spokes on the wheel are:

- The first, and most important, spoke is employees. Motivated, interested, trained, skilled people are the energy that propels a company.
- The second spoke represents management's decisions on money and resources.
- The third spoke is quality products. Many Americans still respect, and will pay for, quality. There's almost no substitute for quality in a service-oriented landscape company.
- Machinery and equipment constitute the fourth spoke. If you recruit and train a high-quality work force, and employers give them respectable equipment to work with, expect a synergistic outcome. Our company usually produces twice as much revenue, per person, as the typical company seen in the green industry. We do this by giving good people good equipment. Neither can perform at championship levels without the other.
- The fifth spoke is markets. Niche marketing is a key to success in the green industry, and cultivation of customers is an art. In an industry that sells service, a satisfied customer is your best bridge to new business. Our company treats clients like we would like to be treated, with high standards of honesty and integrity. Our customers financed all our dreams because they believed in our systems.
- The sixth spoke is the fuel that starts our engine every day: A pleasant work environment and a good benefits package. People who feel comfortable, and needed, do better work. Employees require financial security to feel comfortable. Profit sharing, retirement income, and an insurance package are benefits commonly offered by American companies, but sometimes lacking in nursery companies. The wheel that holds all these spokes together is labeled success. It rolls on and on if the hub is secure and the spokes remain strong and unbroken.

NURSERY PRODUCTION: THE CLOSED SYSTEM

If you're in the landscape business, and you're thinking about getting into the plant-growing business, I have one piece of advice for you: don't. Most managers of landscape nurseries can't seem to prioritize or commit to the timely attention a nursery requires. In the height of the spring season, if a major customer calls and

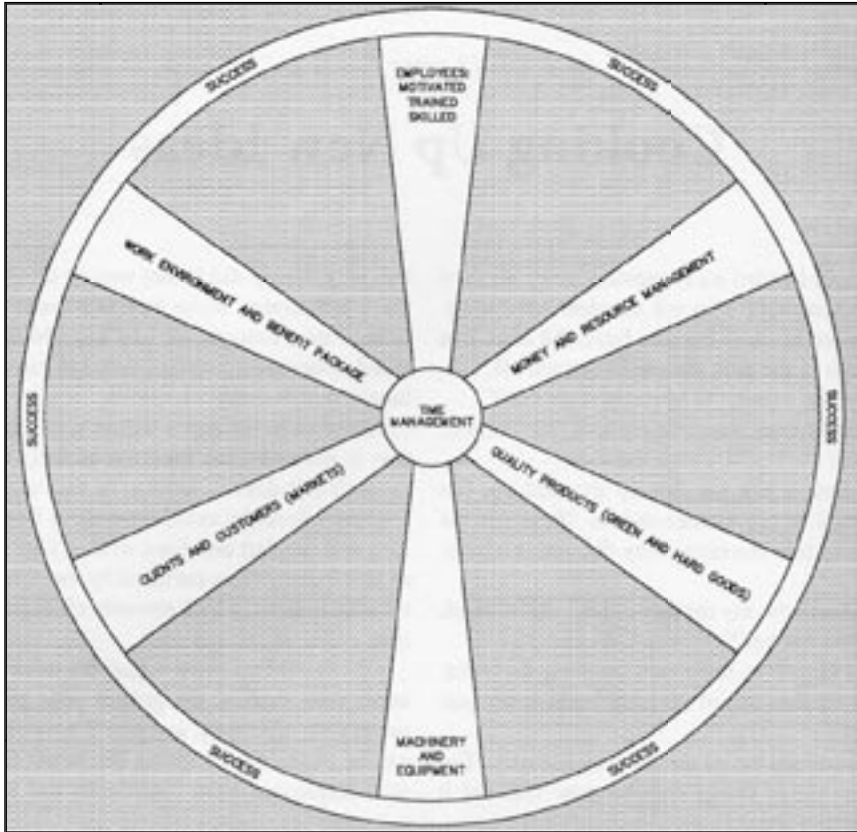


Figure 1. The wheel of success.

says, “I have to have this project done right away” — on the day that you should really be putting 3000 liners in the field — you have to have enough courage to say “no” to that customer for the long-term benefit of your operation. It’s tough to make these decisions, but running a successful landscape nursery means you have to think like a wholesaler as well as a landscape manager. I believe any mom-and-pop landscape organization that has no nursery production experience is better off going to a good wholesale nursery and paying for the expertise that goes into its plants. To do it efficiently, you either need a large wholesale growing operation (which pays off in economies of scale) or a landscape nursery that’s customized to dovetail precisely with your market. In our case, that means a closed system. We only grow plants for ourselves, and only in the sizes and range I know I can use to create designs and sell to customers. Our landscape installation system is designed around the 2-inch tree, so that’s all we grow — nothing larger, nothing smaller. All of our evergreens are in the 4- to 6-ft range because that’s what we’re set up to work with. We’re not wholesale growers; we’re a small landscape business growing all of our own B&B plants.

However, we approach our nursery business just like a quality wholesaler would. We do this very successfully with a 30-acre, 10,000-tree nursery — more accurately, a tree-production system.

About 3000 trees per year come out of our nursery and go into residential or commercial landscape jobs. But we buy the vast majority of our container woody plants from other companies because we're just not set up to grow them as profitably as the specialists can.

A Closed Loop Makes Planning Easier. Our company stresses the phrase “think ahead, plan ahead, be ahead.” We selected that motto for a good reason: most nurseries do a very poor job of planning. Too many plants are left in the field to continue maturing after their intended production cycle is over — not because the company wanted to sell big trees, but because their market forecast was wrong.

I've seen wholesale nurseries all over the country, and it strikes me that most field production operations just don't plan very well. Container nurseries seem to do a better job of it. Retail garden centers do a much, much better job. And landscapers fall somewhere in between.

That's why I believe in the closed system. Unlike general wholesale growers, I only have to predict what's likely to happen in my own market, rather than markets all over the region or nation. I don't sell plants to anyone but my own customers — the end users. And when I'm long on 'Patmore' green ash, I can spec that as a preferred deciduous tree in my landscape jobs, so my inventory has a better chance of balancing out.

Our customers have come to recognize us as being reputable, having good-quality material, and good service. I carry an inventory book in my truck all the time, so I know exactly what I have available to sell in the fall and in the spring. If I happen to get onto a job that needs six flowering crabapples, and we have an abundance of 'Snowdrift' in our fields, you can bet that one or two of those six are going to be spec'd as 'Snowdrift'.

Occasionally a job does come up that absolutely requires a plant I don't have, and I'll have it shipped in. That's extremely rare, though. Part of our problem is that I'm 300 miles from the nearest wholesaler or rewholesaler, so freight is expensive, and service can be slow. That's a key reason we started growing our own B&B stock.

Most of the time, if a customer asks for a particular item, and we're out of it, I'll say, “I'm sorry; I'm sold out. We have another crop coming on; they're going to be beautiful. They'll be ready in October.” I basically give the customer a choice: wait until fall, or look for another landscape company. Almost everyone agrees to wait.

Timing Is Everything. This leads to another important aspect of our closed system: We harvest all of our trees in spring (April) and fall (October-November). Though many nurseries summer dig, we're old-fashioned when it comes to digging. Every piece of research I've seen indicates that tree physiology just doesn't jibe with harvesting and planting in summer. Once trees come into bud and leaves begin to emerge, root growth accelerates. By planting in early spring, or waiting till the trees go dormant in fall, we solve a lot of transplant shock problems and dramatically reduce our replacement rates.

Some of our competitors do offer summer-dug trees. I've watched those plants in the landscape. When they're installed in 90 or 100 °F heat after sitting in a heeled-in yard for several months, they go into suspended animation for 2 or 3 years. Summer-dug trees just seem to lose all their momentum. I don't want our customers to have those problems.

Of course, this takes some explaining — just as the 2-inch standardization does. My method for maintaining tree health while keeping our crew deployed efficiently is to design phased programs for our customers.

If the customer calls in winter, we explain that we'll come in April to plant all the large deciduous trees and B&B ornamentals. We want those trees in the ground before the first of May. Then, during late spring or summer, we come back to do the small foundation plants, berm plantings, mulches, borders, and so on. We may visit a site three times over the course of a planting season before the job is done. Conversely, if the customer calls us after May 1 (and, of course, a lot of them do), I start the phased program with the container plants, mulches and borders. When the leaves drop on the trees at our nursery in fall, we come back with those plants and finish the jobs. I know it sounds crazy, but it works for us. And once we explain that we're trying to preserve tree health, our customers really appreciate the idea.

Customer Trust Increases Flexibility. This philosophy defies the notion that customers really require an infinite selection of plants as well as instant gratification. Because we've developed a strong reputation for quality, every new customer who calls us is already inclined to take our professional advice. So when I explain why we plant only 2-inch trees, why we offer only proven selection for our area, and why we do it only at certain times of the year, customers rarely question our system.

We're a small business, and we have the luxury of saying we can't be all things to all people. Most of the time, that's an advantage, not a handicap. We control our production, we control our installations, and we make sure the two operations work together for peak efficiency and profitability.

Running Lean. I'm not suggesting that every landscape operation in the country should start growing plants for themselves in a closed system. Again, I believe most landscapers would be much better off concentrating on making a profit with their landscape operations and leaving nursery production to the pros. Nevertheless, some landscapers feel they simply must grow plants. I have to admit that some wholesalers are getting so efficient that it's probably foolish for my company to keep growing B&B trees, too. But I love it, and we'll keep doing it as long as we can make money.

As in the landscape operation, we emphasize productivity per person: doing quality work efficiently with the fewest people possible. The same four full-time employees who work on our landscape crew run the nursery operation. They do all the cultural work: trimming, watering, harvesting.

Any good field-production operation starts with the soil. Our topsoil is 3 ft deep. And our nursery is quite flat, so we don't have an erosion problem. For the most part, our trees are on a 3- or 4-year production system. Ash, locust, birch, flowering crabapples, and pear are primarily a 3-year crop; maples, lindens and oaks usually take 4 years. We harvest all of our B&B trees during fall and in April. In late spring, after the harvest is finished, we begin the soil-management program on previously planted ground.

Subsoiling and Leveling. We run a subsoiler through the fields at an 18-inch depth, which rips out the root systems left behind after the harvest. The deep subsoiling operation has many benefits. It loosens hard-packed soil, gets rid of the previous harvesting pathways, and increases water percolation by improving the soil aeration.

After the subsoiling is finished, we use a spring-tooth harrow to level the field.

Green Manure Crop. In May, we drill in a green manure crop of sorghum Sudan. At the same time, we apply 20-10-10 fertilizer with a Dutch-made Vicon spreader to provide plenty of nutrition — particularly nitrogen.

Dr. Carl Whitcomb recommended the Sudan grass program; we like it for a couple of reasons. First, it returns a great deal of organic matter to the soil, which may be depleted after having been in production for 3 or 4 years. Second, the Sudan grass's root systems really break up the soil and give it a nice texture. The grass germinates in early June. By mid-July, it's 4 to 5 ft tall and ready to mow. Our part-time farmer uses a sickle-bar mower and lets the debris lie where it falls; we generally mow three times during the summer. As a result, the root system stools out and becomes absolutely massive.

Preparing for Winter. We usually get a killing frost sometime in mid-September. We then take a bush hog rotary mower and completely chop the grass. We set the mower as low to the ground as possible to thoroughly mulch the grass particles. The next step is a pass with a Howard Rotovator, which incorporates the organic matter into the top 8 inches of the soil. Finally, sometime before the ground freezes hard, we drive over the field with a chisel plow. This leaves it in rough condition so it will be subjected to freeze-thaw cycles during the next few months. Usually our freeze line is 24 to 36 inches deep. The field now lies fallow until the following spring.

The Right Liner. High quality liners can go a long way toward assuring a good crop. We buy in all of our bare-root liners, primarily from nurseries in Minnesota, Wisconsin, and Oregon.

The plants typically arrive in the first week of March, when it's still quite cold. Often, we have snow on the ground. We want to put our employees back to work as soon as possible, and though it's too cold to work outdoors at this time, we can get our trees in and do the necessary pruning, bundling, and labeling so we're well-prepared when planting time rolls around.

As I've mentioned before, our plant mix is intentionally limited. We grow birch, ash, honeylocust, maple, linden, oak, flowering crabapples, and a range of small ornamental shrubs. Trees that require 3 years in the field — ash, locust, and birch — are usually planted as 5- to 6-ft whips or 18-inch liners. Maples, lindens, and oaks are purchased as 6- to 7-ft light-branched trees. Flowering crabs start as 6-ft light-branched trees. And all the deciduous shrubs are 3-ft bare-root stock.

We've built a 4000-ft³ walk-in cooler that allows us to hold and handle the stock until planting time. If you can't control the temperature and humidity, you're doomed to lose plant quality. Basically, a nursery cooler is simply a cube that must be cooled. I wanted to make sure the floor stayed cool, too, so before pouring the concrete floor, we put down 3-inch Styrofoam insulation and extended it out 2 ft beyond the cooler walls on all sides. A fan to promote good air circulation and inhibit fungus growth is a requirement.

We keep the space at 38 °F and use a mist nozzle to maintain a relative humidity of 98% or 99%. We root prune and top prune as necessary, then tie the plants in bundles of 25 and label them, which 25 trees per row.

We like bare-root stock for deciduous trees, but our philosophy is completely different for evergreens. We only plant 1000 evergreens a year, and we want top quality and minimal loss. Several years ago, we switched from bare-root to container liners.

Here's another instance where it has benefited our company to question the status quo. We only plant 1000 evergreens a year; if we lose five, I just go into orbit. When we receive the container liners, they've already been culled two or three times at the production nursery. With this kind of stock, we achieve the closest thing to absolute uniformity. Our digging operation is virtually row-run. We don't waste any time, and we don't have any culls. Out in the landscape, these plants really perform — and again, we have very, very few losses. Once we started comparing the cost of an “inexpensive” bare root liner to an “expensive” container liner, including all the steps that go into the process, we decided the container liners were cheaper in the long run.

Efficient Planting. In our area, nurseries start planting in April. We try to get all of our dormant bare rootstock planted on the first Saturday in April when the soil conditions will allow it.

We're fanatic about rows and spacing: 10 ft between the rows, 8 ft between the trees in each 200-ft-long row. Generally, Debby and I go down the afternoon before the planting day, and we put a row of stakes 10 ft out from the grass edge at the field border to mark the first row, and a row of stakes up the end of the field to mark the ends of the 200-ft-long rows. On planting day, several people go out with a 300-foot tape measure and mark out the rows.

Our planter was built by Tree Equipment Design. It's attached to a 4600 Ford tractor, and we have three different shoes for it. This equipment allows us to plant 1800 to 2000 liners in one 10-h day: the entire inventory of deciduous bare-root plants we're lining out.

The procedure is only slightly different for the container evergreen liners. We use a utility knife to score the root systems before putting the plants in the planting machine.

Post-Planting Operations. The next step, especially with the shade tree liners, is hand packing after planting. Now, we drive down the newly planted rows with a tractor, equipped with a three-point blade. This pass creates a furrow of soil along both sides of each row of trees.

One of the high school crew members hired to work on planting day quickly walks around each tree, and because there's already a furrow down both sides of the row, he can create a basin in a matter of seconds with a round-point shovel.

The basin forms an excellent holder for water, which we apply manually with a water wagon after planting.

Fertilization. The basin also does a nice job of confining the post-plant fertilizer to the root zone. We use a Fertil Pak backpack applicator. Our fertilizer is Howe 18-18-8, recommended by Dr. Bert Swanson at the University of Minnesota.

NURSERY PRODUCTION: PLANT CULTURE

Now that our trees have been planted, fertilized, and watered in, how do we take care of them in our growing system? From fertility to watering to weed control, our cultural program is designed to maximize plant growth and minimize labor.

Fertilization. Sometime in April, before the deciduous material leaves out, we drive down each row and band-apply Howe 18-18-8. We place the fertilizer in precise 3-foot bands.

We also use the same equipment to fertilize evergreens. Because these plants are bushy and full almost down to the soil line, blocking the fertilizer's path, we cut the fertilizer rate in half and drive down every row, placing fertilizer on both sides of each plant, instead of just one side as with the deciduous trees. The plants get the same amount of fertilizer; it just takes us twice as long to do it.

Water Wagon Irrigation. As I mentioned before, we're blessed with deep topsoil and abundant rainfall: 32 inches in the average year. In most years, we don't need an extensive trickle or overhead irrigation system. Many times, all we need to do is apply water with an old-fashioned wagon, supplied from a well on our nursery.

Using the water wagon and a creeper gear in the tractor, we can easily put a gallon of water on each tree as we drive by. Four-foot aluminum extensions allow us to put the water right where it needs to go. As with the fertilizer, we do two rows at once. But there are some years when we just can't put the water on often enough. So we use our "insurance policy": a Turf star traveling gun irrigation system.

Pre-Emergent Weed Control. I'm kind of old fashioned. I like a clean, weed-free nursery. We use both herbicides and cultivation to achieve this goal.

Many of our customers like to look at plants in the nursery, so a neat appearance is a must. And we strongly believe that weeds offer so much competition for nutrients and water that we can't ignore them. Fewer weeds also tend to mean fewer insects.

If you let one weed go to seed, you end up with a thousand weeds. So we mow all of our road ditches, and make sure that no weeds ever go to seed in our nursery. It's much easier to keep our fields clean that way.

At our nursery, weed control is not a chemical. It's a system encompassing cultivation, spacing, timing, equipment, and philosophy, as well as herbicide. It's the cultivation that really allows us to stay weed-free, or as close to that ideal as possible.

That said, we do incorporate Treflan, a liquid pre-emergent broad-spectrum herbicide, in early May. Many people think of Treflan as a grass herbicide, but there are many broadleaf weeds on the label as well. And because our system is so reliant on cultivation, this product is a perfect fit.

We incorporate the Treflan with a three-point cultivator, driving down the rows east to west to help drag the herbicide between the trees. We cut down the width of this attachment so it's exactly 6 ft wide, matching the span of our tractor tires. Hooked behind the cultivator is a homemade tool bar that has teeth pirated from a John Deere corn planter, which further mixes the soil. Three or 4 weeks later, we use the same cultivator, this time in a north-south pattern.

In-Row Cultivation. In addition to the cultivator mentioned above, we use a side-mounted Clemens cultivator. Imported from West Germany, this equipment was originally designed for vineyards.

As we drive down a row, every time the sensing arm feels a tree trunk, it folds the blade back. Once we've driven down both sides of the trees, the cultivator has cultivated everything except a 6-inch ring around each tree. The sensing arm gives us an extra measure of tree protection. The equipment also includes a hand control so if we're working around a small liner that offers inadequate resistance to the sensing arm, we can move the blade out of the way by hand.

One person can completely cultivate our whole 30 acres in about 10 h, right from the tractor seat.

People frequently ask me why we use this equipment instead of a Weed Badger. I have nothing against Weed Badgers; they just didn't happen to fit our system.

The Weed Badger is fairly aggressive. It moves a lot of soil. We only incorporate our Treflan 2 or 3 inches deep; if we go deeper than that with a cultivator, we lose all the benefit of putting it on.

We do occasional spot spraying with Round-up. With a small gas-powered sprayer, we can zip down the rows and spot-spray quack grass, thistles or whatever else happens to crop up. And yes, despite all our equipment, we also do a bit of hoeing if the problem is small and isolated. Sometimes, doing things by hand is simply the fastest, most efficient method.

People often question how we keep our nursery so clean when we are landscaping constantly. First, a retired farmer cultivates on-call every 3 or 4 weeks. Second, our landscape and production systems are dovetailed. Most of our landscape jobs take 7, 8, or 9 h. We usually work 10 h days, 5 days a week. So when the landscape job ends at 3:30 or 4:00 PM, we head back to the nursery and spend the rest of the time hoeing, trimming, staking, and doing other cultural activities

Insect Management. Fortunately, we don't have major insect problems. The main insects that disturb nursery crops in our area are red spider mites, aphids, and sawfly larvae.

We tackle insect pest management in two rounds: usually the 2nd week of June and the 2nd week of August. Both times, we apply a preventive dose of Orthene or Isotox — usually Isotox, due to its broad-spectrum, systemic action. To fight Zimmerman pine moth, we use Dursban during the last week of April and the first week of August.

Staking, Shearing, and Pruning. Shaping top-quality trees is an important job at any nursery. Staking is done during the 2nd week of June in the 2nd year the trees are in the field. Honeylocust is the main species that needs this attention. We use a 10-foot-long, 1/2-inch steel rod; we grind off the ends so they're smooth.

We insert the rods by hand to a depth of approximately 8 inches, then tie them to the trees with a plastic tie. We always check the trees during the summer to make sure the ties haven't worked their way loose after windstorms. Next, we use hedge shears to lop off the tops of the trees. Typically we remove 12 to 18 inches of growth. We shear almost all of our evergreens by hand.

Major deciduous pruning is done at the end of the fall. In fact, it's the last thing we do before the crew goes home for the winter.

Our pruning routine does not include root pruning. Because we root-prune all our liners before planting them, and because our crops are only in the field 3 to 4 years, we can achieve a strong root system without root pruning in the field.

After 3 years in the field, our trees are ready to dig. And we will dig them all in the 3rd year.

The heart of our business isn't inventory, it's the landscape installation system. By rigorously controlling what's in our fields, and selling against that inventory when I make proposals, I make sure the system continues to work as efficiently as it's designed to work.

NURSERY PRODUCTION: HARVESTING AND HANDLING

By now you shouldn't be surprised when I tell you we don't just have a harvest — we have a harvesting system. Tree harvesting is one area of the nursery production

business where systems are starting to make a major impact. The mechanical tree spade has revolutionized harvesting, and, not surprisingly, our system involves a spade and a mechanical digger. However, we incorporate that equipment into an operation involving other tools, vehicles, and handling strategies. We don't just have a mechanical spade. We have a tree harvesting and handling system.

Tree Spade and Digger. I could write pages and pages about all the spades available on the market today. If you're growing trees in any quantity at all, you probably already have one that works fine for you.

To fit our system for producing 2-inch trees, we chose a Vermeer 32-inch spade, which we mount on a Case W4 articulated tractor.

We also recently acquired a Clegg 32-inch digger, which has four spades and cuts the bottom of the ball off with an undercutter. The Clegg digger operates at a faster pace than the Vermeer spade and eliminates the step of cutting off the bottom of the ball. We have found that the Clegg does not penetrate frozen or hard-packed ground as well as the Vermeer, so we plan to maintain both machines in our fleet.

Burlap Wagon. The burlap wagon is a key factor in the success of our harvesting system. We bought the basic wagon from Hawthorne Industries in Oregon. We added 18-inch plywood sides. On the back end is a roll of our foam tree trunk protector, a place for the water cooler and cup dispenser, and our B&B wrapping kit. The burlap wagon also carries oil for the tools, a wastebasket, a place for twine and staples, and three sizes of burlap. We have a canvas cover that completely shields the load if a rain shower shows up.

Once we've dug the tree, we haul it to the end of the row and lay it on a square piece of burlap, which rests on a grass row at the end of the field. Unlike many wholesalers, we don't use wire baskets. We don't have to ship our trees any great distance; we have wonderful soil that holds together.

B&B Wrapping Kit. I designed a power tool for B&B wrapping. It's nothing more than an air compressor that powers a couple of C-ring tools. The kit has reduced our wrapping labor by 50%. The tool uses a magazine of 110 C-rings, bending them and driving them through materials to form a circle. They're attached to the compressor by 50-foot hoses, so our crew has good mobility. Your hands never touch the staple.

Our B&B wrapping kit has been commercialized by Stanley Spenax. If you want to save labor and have fun during the harvest, you might want to take a look at it.

Our tree-harvesting system is a four-person operation. One operates the spade; two stitch up the burlap with the C-ring tools; the fourth puts a drum lace on the ball, tree-wraps the trunk, and adds a trunk protector. As soon as the wrapping crew gets far enough ahead, the fourth person switches to loading with the Tree Boss.

The Tree Boss at Home Base. The Tree Boss is absolutely integral to tree handling at our nursery. This single piece of equipment allowed us to double the volume of trees in the field without adding any employees; it replaces two or three people on an average nursery site. Today, the entire harvest — not just the digging — can be mechanized.

Again, labor is the biggest expense for every nursery business. If machinery can reduce your labor costs for repetitive tasks, you're almost guaranteed to make more money when you mechanize. The amazing thing about the Tree Boss is that, from the time we drum lace the tree in the field until we get to the landscape site, the tree is never touched by human hands.

We can detach the Tree Boss and put a forklift, loader bucket, spade, or any other tool on the front of the same tractor. The Tree Boss has little support legs that stabilize it when it's parked. Hooking it up and unhooking it takes 3 or 4 min, which helps us minimize the number of tractors we require.

From the time our trees are planned for production (as part of our closed-loop marketing strategy) to the time they are delivered to a landscape site, we use planting, cultural, and harvesting systems to make our nursery operation profitable. Growing is one area of the green industry that is still heavily dependent on manual labor. We have discovered that the creative use of production systems — “a philosophy that transcends mere equipment” — can turn plant growing into a truly efficient enterprise.

Efficiencies from Rolling Bench Propagation®

Bill Van Belle

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INTRODUCTION

I feel honored to be able to share this presentation with you this morning here at the Eastern Region. I have been a member of the Western Region for many years so I have always been taking. It is now a pleasure to give in return. There are a number of basics, which influence our decisions. People are very important to us. We believe that people should be loved and things used. The problems arise when things are loved and people are used. People comfort is very important to us. The rolling bench equipment is available “off the shelf” in the Netherlands where a number of liner producers are using it. To the best of my knowledge we are the only nursery propagators in North America using it. The goal is to bring the work to the people, rather than having employees spread all over the nursery. This eliminates what I call “walking time” — to lunchrooms, washrooms, or telephones. With the rolling benches most of the work can be done in an ergonomically correct fashion. Supervision is also easier as most of the tasks are done in a central area. Another realization was that we are not in the nursery business but are in the materials handling business. Many of the tasks lend themselves to mechanization. The simple question we are presented with is how do we take 3000 yards of soil mix, add unrooted cuttings, some plastic and fertilizer, ship 3,000,000 liners, and get paid for them? Presently most of the tasks in propagation are done under an incentive system, with all tasks having basic numbers, which must be achieved. Anything over these numbers, the employee and employer share the savings.

COMPANY BACKGROUND

Van Belle Nursery operates 60 acres on two locations in Abbotsford, British Columbia. We specialize in hardy woody ornamental shrubs and vines from 4-inch liners to 3-gal container stock. Our nursery is located in U.S.D.A. Zone 7–8, which is the same as Southern Georgia. Although only 2 miles away, our liner location does not suffer the cold outflow winds coming down from the United States as our other location does. We grow 4-inch liner stock for the northern half of North America or U.S.D.A. Zones 3–6, including shrubs, vines, and some conifers. Shipping is