



# BRINGING EFFICIENCY INTO BLOOM

**W**HETHER IT'S A DAFFODIL or a giant sequoia, a plant is a relatively simple closed system. Its ultimate growth is driven by basic environmental factors such as light, water, soil and accessible nutrients.

The nurseries that produce these plants, however, are much more complicated.

In theory, everything that happens should contribute to the growth of the plants, and the nursery will therefore be profitable. But in practice, inefficiencies are everywhere.

More and more growers are putting themselves under the microscope and examining every step in the plant production process to determine what is truly necessary — and what is waste. To see the difference, and act on it, requires a change in outlook. And many nurseries are embracing that sort of change.

“In the old days, my dad would say, ‘We’re not a plant factory,’” said **Tom Fessler**, the second-generation owner of **Woodburn Nursery & Azaleas**. “But currently, we think we are.”

“We used to take pride in doing a lot

of the work by hand,” said **Chris Lee**, a manager at **Eshraghi Nurseries**, a wholesale grower based in Hillsboro, Oregon. “There was a perceived value in the extra time spent with each plant. As we become

customer pays only for the product. Anything else is waste, and the producer pays for it. By reducing waste, any business — including a wholesale nursery — can lower costs, increase quality and make profits more likely.

**Rick and Elizabeth**

**Peters**, husband-and-wife owners of **The Peters Company**, are Lean consultants who operate Lean nursery consortiums in Oregon and Washington. As such, they work with several growers seeking to make their processes leaner.

“Lean is about going to war — a war on waste,” Rick

Peters said. “This waste comes in several forms. But, all forms of waste cause excess use of resources, including labor, capital, time and creativity. With today’s labor shortages and increasing costs, remaining neutral on waste is no longer a viable option.”

There are 10 green industry businesses participating in the two consortiums, and expects to see more signing up.

“Choosing to opt out of the war is akin to slowly raising the white flag >>>

**N**ursery profitability is always a challenge. We talked to more than a dozen growers and industry colleagues who have become more efficient, and increased their bottom line, by improving their management, workflows, inputs and workspaces

BY CURT KIPP, BILL GOLOSKI AND JON BELL

more efficient and automated, a more consistent and superior crop is often the result.”

Some efficiency-minded growers have adopted Lean, also known as the Toyota Production System. It gives users the tools to identify and eliminate waste.

People often think of waste as “what goes in the trash can,” but in the context of Lean, the meaning of “waste” is broader. It’s defined as anything that does not enhance the product’s value for the paying customer.

A key precept of Lean is that the

Previous page: An employee at Woodburn Nursery & Azaleas uses a tablet computer as a guide during the process of loading shipments. The elimination of paperwork has saved the company work hours, thereby lowering costs. PHOTO BY CURT KIPP

to your competition,” he said. “Why? Because your competition is waging war ... not on you, but on their own waste.”

Although Lean is a significant and formalized commitment for a business to make, other growers have simply looked for efficiency informally, where they

can find it.

We visited with several growers who have taken steps to become more efficient. They’ve adopted a team management approach, adopted better workflows, improved their use of inputs and even rearranged their workspaces to make

everything come together like clockwork.

Although each nursery is different, the principle is universal. The power to be more efficient rests with growers and employees. We hope these examples will provide information as well as inspiration to improve your bottom line.

### EFFICIENCY BEGINS AT THE TOP.

It starts with company leadership setting an expectation and empowering employees to contribute their ideas and expertise. It’s about encouraging dynamic, back-and-forth conversations in the workplace.

Companies such as wholesale propagator **JLPN Inc.** in Salem, Oregon; wholesale grower **Skagit Horticulture** in Mount Vernon, Washington; **Eshraghi Nurseries** in Hillsboro, Oregon; wholesale bedding plant nursery **Peoria Gardens** in Albany, Oregon; and wholesale plant nursery **Van Essen Nursery** in Lebanon, Oregon and others have taken numerous steps to set the tone for efficiency and innovation from the top to the bottom of the organizational chart.

## PART ONE MANAGING FOR EFFICIENCY

### Checking in often

**Skagit Horticulture** holds a morning managers’ meeting, which provides a regular outlet for discussion across departments.

Similarly, **Eshraghi Nurseries** holds a 9 a.m. production meeting every day to go over what will be happening across all departments. It streamlines communication, keeps everyone accountable and sets a productive tone for the day.

“Mentally preparing our day saves us a lot of time in the long run,” said **Chris Lee**, a manager at Eshraghi.

### Looking everywhere for ideas

**Jerrin Victor**, general manager at Skagit, also looks to people from all levels of the organization. He knows ideas to make things better can arise at any time.

“Idea gathering starts out as casual,” Victor said. “When going through the greenhouse, someone will ask me ‘Why do we do this?’ or I will say ‘Why are you doing it this way?’

These simple conversations are sometimes the most valuable.”

Victor often visits employees who are following an established process to achieve a certain task. He asks them, “Do you think we can do it better?” The answer is usually yes.

It comes down to realizing that people care about what they do, no matter what that is, Victor said. A part of providing a creative environment is putting the accountability of group success back on the team members. Give employees a sense of ownership over what they’re doing, and impart that they are trusted to know what is best for the business.

### Putting creativity before capital

**John Lewis**, owner of **JLPN Inc.**, operates under the precept of “creativity before capital.”

Although equipment upgrades can boost production, he encourages employees to get creative and suggest time-saving changes to routine that can be made for

little or no cost. These are often right in front of one’s face, and employees are the ones best positioned to see them.

“[Our Lean events] taught us to draw more from the foreman, and crews as a major wealth of knowledge,” Lewis said. “We found that many crew members had amazing insight to what we were doing, but they never voiced them until we got them in a large group to voice their ideas, and give input.”

### Being generous with credit

There are no scorecards at a managers’ meeting, or in a JLPN brainstorming meeting. “I give [my employees] credit that they know more about their job than I do,” Lewis said. “That system works very well, because it promotes and encourages organic thinking, and gives people a sense of ownership in their job.

A part of the sharing spirit involves making sure people are proud of their ideas. Even if their suggestion fails, it can be a springboard for the next ideas. ➤➤



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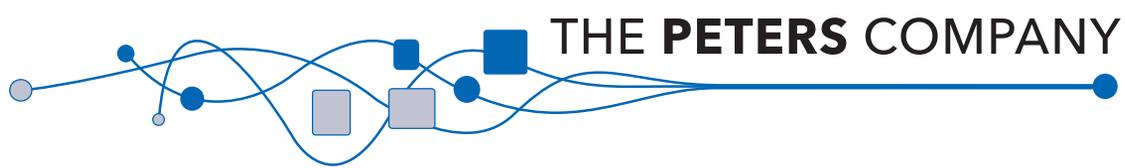
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The culture of a creative company is one that tests new ideas, talking about them thoroughly.

“Once you shut an idea down, you greatly reduce the number you will get in the future,” Victor said. “There are no tally marks for winning comments, but rather just a group of invested people saying ‘Hey, let’s stop and think about this for a minute.’”

### Sharing the rewards

If seeking input from employees sounds like a radical step — something that might trigger an onslaught of employee complaints — well, Lewis takes things a step further. He shares the company’s savings from Lean events with his employees.

“I make sure to reward my crew for their efforts by calculating our savings on a Lean event with my Lean manager,” Lewis said. “I give that money back to them in the form of a Lean Bonus at the end of the year.”

It’s one more way he can reinforce Lean methodologies and practices. “Any

money that JLPN saves through the crew’s creativity, goes back into their pockets at the end of the year, not mine,” Lewis said. “That inspires creativity, and keeps us continually looking and making improvements in our process and adding value to our product for our customers.”

At Skagit, Victor rewards employees for sharing their ideas on the spot. “I have a bunch of gift cards in my desk,” he said. “That brings a lot of good ideas forward.”

Skagit has also built bonus programs into certain projects they work on to recognize employees for their contributions. At the completion of a large project, the company holds a group lunch to celebrate successes and recognize particular employees.

### Hiring carefully for need

Although employees can be a source of new ideas, management is responsible for sizing the workforce and matching it to needs. Eliminating positions midstream is a preventable mistake that adds stress and financial hardship to employees.

“The saddest thing is hiring 15 and

then you realize in the middle that you are overstaffed,” Victor said. “Let’s spare people’s feelings, and get the process right from the beginning.”

**Ben Verhoeven**, president and general manager of **Peoria Gardens** in Albany, Oregon, said his nursery has seen “some difficulties” as a result of the labor shortage that plagues the industry, “but not yet to the degree that many other nurseries have.”

Hiring the right number of employees also helps cut down on overtime costs, he noted.

At **Van Essen Nursery** in Lebanon, Oregon, owner **Dave Van Essen** said he’d used a contractor to help ensure the nursery has the right number of employees for peak season. That has worked well, as has hiring locally and also identifying what Van Essen described as “hidden talent” that enables the employees to move up into higher-skill jobs.

One worker has worked her way up to lead the nursery’s perennial growing operation, while another has progressed up to the role of equipment operator.

## ALTHOUGH SETTING THE TONE FOR INNOVATION IS IMPORTANT, THE PRODUCTION PROCESS IS WHERE THE ACTION TAKES PLACE.

Companies like **Alpha Nurseries** of Salem, Oregon; **Robinson Nursery** of Amity, Oregon; **Woodburn Nursery & Azaleas** of Woodburn, Oregon and others have realized great savings from revising their production processes to make them more efficient.

At Alpha, manager **Josh Zielinski** estimates that labor makes up close to half of the company’s production costs. “Any really small change that saves a couple of minutes an hour starts to add up,” he said. “It has a big effect on our bottom line efficiency.”

Zielinski noted that Alpha used to hire people to solve a problem before spending money on automation or equipment, because equipment is, by its nature, specialized. “We saw labor as flexible because it can do something else,” he said.

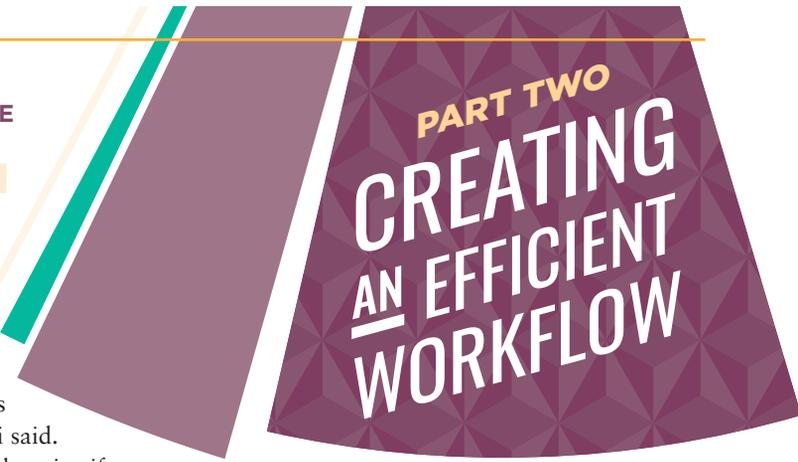
Now, there is no longer that presump-

tion. “It’s difficult to find quality labor, and it’s expensive,” Zielinski said. “It used to be difficult to justify equipment that will save money, but now it’s getting easier and easier.”

### Removing slack from the chain

A key Lean precept is that the pace of work matters, and is especially critical with processes involving multiple employees.

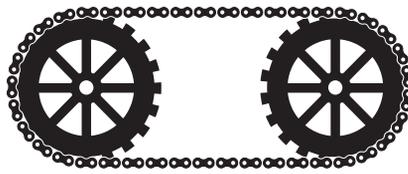
**Corey Hill**, operations manager at



PART TWO  
CREATING  
AN EFFICIENT  
WORKFLOW

**Skagit Horticulture**, recalled a struggle for moving batches of plants on trailers in the field. The leader of his move crew remedied the issue with a simple analogy: He drew a visual diagram of a chain on two side-by-side sprockets, pointing out that if one sprocket turns faster than another, the chain bunches up and comes off the system.

Sprockets and chains are a strong metaphor for how work proceeds smoothly if all pieces run at the same pace.



The broken chain concept works just the same for the move crew — if the pick-up people work at a different pace than the set-down people, there will be slack in the chain.

Next, the leader created a new series of laminated task sheets showing the standard work. It gave everyone their set of tasks and, most importantly, a time limit.

It was a big change for the laborers who just want to work as fast and hard as possible. The goal of labor revision was to equalize the speed of the work and level out the pace of production. Managers carried stopwatches and taught the staff, “If you need a water break, work faster for a minute and then take a drink. This is a comfortable pace for you to work.”

By giving everyone the big picture, staff understood why one side of the field had only one staff member, but another

had two staff members. They could see it as a fair distribution of work, and this in turn improved outcomes and reduced staff turnover.

### Seeing with fresh eyes

**Robinson Nursery** revised its process of coding trees. The nursery color-codes all of its trees with a dab of paint near the base. For employees, this was backbreaking labor. They had to bend over for long periods of time — long enough to code the hundreds of thousands of trees the nursery raises each year.

According to general manager **Chris Robinson**, it took a new employee with a fresh set of eyes to see a better way.

“One day about ten years ago, a new employee >>



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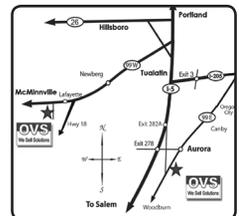
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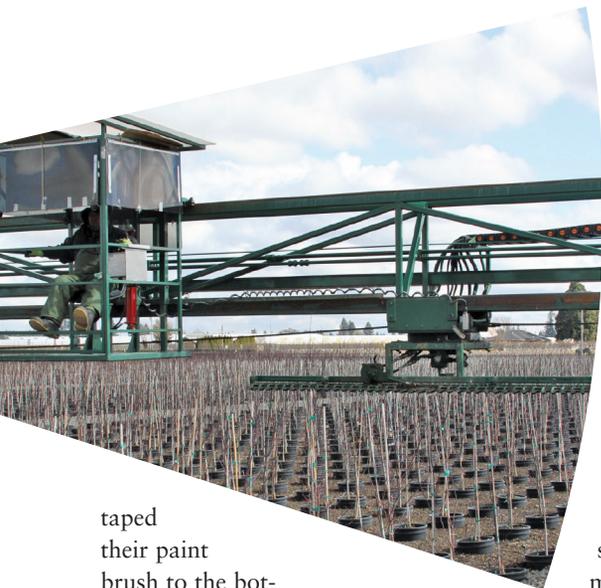
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## Your efficient nursery business

The pruning machine at Woodburn Nursery & Azaleas has sickle bar attachments that can move laterally or vertically, and can also rotate. PHOTO BY CURT KIPP



taped their paint brush to the bottom of a piece of bamboo,” Robinson said. “This extended the brush so that a person could be standing all day painting instead of bending over.”

Any improvement that makes work easier and more comfortable for the

employee is a good idea.

### Building a better trimmer

Trimming of nursery material is an important, but labor-intensive, task. **Woodburn Nursery & Azaleas** automated this process, inventing its own pruning machine for pot-in-pot production areas. Spanning 60 feet, this giant machine trims row upon row of material with only a single operator.

The machine has lawnmower and sickle bar attachments. The cutters can move laterally and vertically, and can also be rotated. The machine itself has rotating tires so it can move forward, backward and sideways.

The machine, which was inspired by a cauliflower harvester, is an effective way to prune anything that can be flat on top.

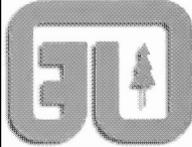
Some manual touchup is usually required after the machine has made one pass over an area, but it still saves time over doing it all manually.

Similarly, **Eshraghi Nurseries** uses a shaper/trimmer that runs on conveyors and is used to trim containerized plants one at a time. They use it on conifers, deciduous shrubs and evergreens. According to **Terry Menninger**, plant maintenance and plant health manager, one chief advantage of the machine is that it keeps the process moving — which, in turn, keeps production humming.

“Plant in, plant out, trimmed and set down,” he said. “It’s a pace setter for how people move.”

### Letting machines do the digging

Of course, mechanization can also help improve efficiency at a nursery opera-



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tion. **Van Essen Nursery** is now using mechanical digging for a much larger percentage of digging than it used to. Not only is the process more efficient, but it reduces the pressure on the nursery to find hand diggers.

“We are able to use more of our regular crew for the digging process,” Van Essen said, adding that the nursery plans to look at improving its potting process and plant moving operations next to find more efficiencies.

### Realizing that more might be more

Potting machines have been around the nursery industry for a long time. However, there’s a new awareness that automating a process won’t necessarily make it more efficient.

After Eshraghi Nurseries put in a new potting machine for large containers from #10 to #25, it initially processed 900 plants per hour. Although that is excellent, the nursery had the Oregon Lean Consortium help review the potting process, paying close attention to the interaction between crew and machine.

The surprising conclusion was that one additional worker was needed. Upon implementation, output doubled from 900 to 1,800 plants per hour.

“With a crew of three, the people had too much work to handle,” Menninger said. “With a crew of four, it worked. The flow was better.”

Results may vary. Woodburn Nursery & Azaleas also took a look at its potting process with help from the Oregon Lean Consortium. For them, the conclusion was different. “The decision was to slow it down and use one less person,” general manager **Tom Fessler** said. “Productivity is up.”

Each nursery must look at its own specific potting process and products to determine the optimal crew size and assigned tasks for each job on the line.

### Cutting one’s losses

**JLPN** staff budgeted for expensive laser counters for a fabrication line, which were installed without testing. However, the counters did not work as efficiently >>>

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as needed, and there wasn't time to try and make them work while production was underway.

"We found they didn't do an effective job, and our best option was to redesign the counting system with a person using simple hand clickers to count bundles,"

**John Lewis** said. "In the end, we got the job done for the cost of about \$50, and shelved the lasers for the time being."

Although the money was spent on the laser counters, Lewis didn't feel the need to keep using them.

"We have no use for keeping a

'monument' in our nursery, just because we've paid for it, and aren't willing to cut our losses," Lewis said. "My manager even said, 'I guess we missed on that one.' However, we made the decision as a group, so we made the mistake as a group. I consider that true success."

### PART THREE USING YOUR INPUTS EFFICIENTLY

Although labor is the largest expense for many nurseries, it isn't the only expense. Inputs such as water, fertilizer, growing media and even artificial light also impose significant costs for the grower.

Entire books could be written on saving water and electricity in a nursery. The Oregon Association of Nurseries and the Oregon Environmental Council worked in partnership to create the Climate Friendly Nurseries Project to help growers find many of these efficiencies. You can find the information at [www.climatefriendlynurseries.org](http://www.climatefriendlynurseries.org).

In terms of other input efficiencies, companies like **Marion Ag Services** in St. Paul, Oregon and lighting providers like **Fred C. Gloeckner & Company Inc** in Clackamas, Oregon are a boost to business.

#### Controlled release fertilizers

Plants have a constant need for sustenance — but nurseries don't have time to give them constant attention.

The development of controlled release fertilizers means longer feeding intervals than ever before. The fertilizer itself does the work of slowly releasing the nutrients on a predictable schedule. This saves on the input cost and it also saves on labor.

**Marion Ag Services Inc.** offers one such product line. Known as Polyon, the polymer-coated product is available in different formulations that can be custom blended based on grower needs.

"It's different than a slow release fertilizer," said **Hayden Hockett**, a researcher and registrar with Marion Ag. "It's controlled release. They can get very predictable release rates of nutrients over a long time. With some fertilizers, your nutrients can easily leak out of the bottom of the container in a heavy rain. But because this is a controlled release fertilizer not affected by rain, you're going to get the most out of that fertilizer."

Hockett said that in some cases, the fertilizer only has to be applied once per year. The consistent release of nutrients can help

prevent pests and diseases that are associated with boom-and-bust plant growth, he said.

Such growers as **Woodburn Nursery & Azaleas** and **Eshraghi Nurseries**, among many others, use the extended release fertilizers.

**Terry Menninger**, plant manager and plant health manager of Eshraghi Nurseries, said that by incorporating the fertilizer into the soils, they get greater incorporation of the extended release prills into the soil. They end up using more fertilizer initially, but less in the long run due to the greater longevity of the prills. It reduces the need to top dress the plants later on, he said.

#### Being LED to the light

Another input that's able to crank up the processes for some nurseries is lighting, specifically light emitting diodes (LEDs). Nurseries have long used high pressure sodium lights and LEDs, but advances in LED technology, coupled with incentives from entities like the **Energy Trust of Oregon**, have made LEDs an attractive option for some growers.

**Iwasaki Bros.** converted large portions of its operations to Philips LEDs,

installed by **Fred C. Gloeckner & Company Inc.**, about two years ago and has already seen notable improvements. According to **Kathleen Baughman**, operations manager for Iwasaki, rooting time has been reduced on some plants by a third to a half; cuttings that once took six weeks to be ready to plant now take three.

**Ben Verhoeven**, president and general manager of **Peoria Gardens**, recently said he installed LEDs in about a quarter of his propagation area. He's hoping to see improved growing conditions and increased energy efficiency — and, as a result, financial savings — in the very near future.

(For more about LEDs in the nursery industry, see the April issue of *Digger* at [www.diggermagazine.com/an-illuminating-trend](http://www.diggermagazine.com/an-illuminating-trend).)



# PART FOUR ARRANGING THE WORKSPACE

In the nursery world, there's a fine line between having too much space and not enough. Ben Verhoeven, president and general manager of Peoria Gardens, has found the secret to walking that line.

"Lots of sleepless nights and coffee," he said. "Deep breaths. Colorful language."

In all seriousness, though, utilizing a nursery's space in the most efficient way is a serious concern in the business. Do it right and the benefits can be big; get it wrong and trouble ensues.

"One one hand, you have the need to maximize the use of your space. On the other hand, you want to reduce the number of times you touch a crop. You also must maintain crop quality," Verhoeven said. "It is a balancing act."

## Applying 5s principles to the workspace

Because space is at a premium at most nurseries, getting control of that space is an excellent efficiency tool. One of the best tools for doing that is implementing a 5s

program, which is a key component of Lean or Kaizen methodologies.

The 5s program involves creating a simple, clean and safe arrangement of the workspace, where there is a specific location for everything. Unneeded items are ➤



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removed, as they only get in the way. The result is less time spent looking for things and more time spent getting things done.

**Alpha Nursery** is a big believer in 5s and has seen great results from it. They did a series of 5s reorganizations on several areas of their nursery — the chemical room, planting sheds, office, label room, loading dock and propagation area. Each time they did it, it was a team effort. It was successful in large part because of the rich and productive dialogue that resulted from that approach.

“We involved people that worked in those areas and those that didn’t,” **Josh Zielinski**, manager of Alpha Nursery, said. “The inexperienced people helped. They asked questions that opened up discussion about what was helpful and what wasn’t.”

The 5s program, initially developed in Japan, consists of five steps each beginning with the letter “S” — seiri, seiton, seiso, seiketsu and shitsuke. In English, five words beginning with “S” are also used — sort, set in order, shine (or sweep), standardize and sustain — with a sixth “S” for safety sometimes added. There are several online resources that break down each of the steps.

The final step — sustain — is key, as it is necessary to make sure that improvements remain in place for the long term. As with other Lean concepts, 5s is an ongoing process that gets revisited so that further improvements can be made.

### Saving a step with liners

**Bailey Nurseries** has been shifting to use greenhouse liners — essentially cuttings that have been put in a pot with soil — more and more in its container program to help ensure that plants are finishing faster. Doing so ensures that plants move out of the nursery sooner, thus freeing up coveted and limited space in the container area.

“It’s something that we’ve been focused on a lot, how to turn that gravel as quick as we can,” said **Shane Brockshus**, general manager for Bailey’s West Coast operations. “The container farm is the most intense in terms of the cost of the acreage. The longer a plant is sitting there, the more we pay.”

Bailey, in fact, has developed its own

liners called JumpStarts, which come in hexagonal plugs and are designed for faster finishing times. Bailey grows JumpStarts for sale, but it also uses them in its own operations. Brockshus said they don’t shorten the overall growing cycle of a plant, but they do shorten the amount of time they spend in the greenhouse.

“That’s one of the biggest things that we’ve been focusing on to be as efficient as possible,” he said.

### Moving plants, not people

Bailey has found additional efficiencies with its space by making relatively minor changes to some of its processes. Here in Oregon, Bailey has 10 acres of propagation greenhouses, all of which are individual quonset-story houses. The nursery used to move the crew and plants around to the end of each house, sticking into trays as they went in on conveyors and filled the greenhouses.

Now, however, Bailey operates a more centralized workspace in a line coming off the flat filler, with workers sticking cuttings into trays and then onto trailers, where the plants are taken to their respective houses. Essentially, Brockshus said, the people do not move; instead, the cuttings and equipment all go through the one designated workspace.

“The efficiency comes from not doing all of that moving and having a more streamlined, defined process,” he said. “We are still tweaking it and will improve it again this spring. One of the best things about the change is that the people and the unrooted softwood cuttings are all in a building, out of the sun, wind and rain. They’re much more comfortable and it’s easier to maintain the pace.”

### Inventing a spacer to speed up work

A staff member at **Skagit** invented a three-sided piece out of PVC pipe that dramatically reduced the time needed to move flats. Before, staff had used empty flats to space plants when they are set down, which required time as well as the



strain of bending down. The PVC piece comes in different sizes that work for all the different flat configurations.

“We make them ourselves,” operations manager **Corey Hill** said. “It’s a very, very cheap solution and allowed us to increase overall daily production because do not have to slow down to the pace of setting down. We can go at the pace of picking up, which was much faster.”

The idea came from a staff member who worked at a different location, with different duties. It’s one more case of a fresh set of eyes spotting something others were too close to see.

“We purposely went and found someone who was intelligent and not afraid to speak up in front of a crowd, and made sure to add people like that to the group,” Hill said. “We got ideas from outside the normal echo chamber of what the ideas were before.”

The employee has since been made a Lean leader at Skagit, and proud to see his ideas in action.

### Consolidating plug sizes

At **Peoria Gardens**, space is always at a premium, so the nursery made some changes to the plugs it grows to try and maximize the use of space, Verhoeven said.

Peoria grows most of its own plugs, and this year, the nursery stopped using its two smallest plug sizes, opting to grow the majority of its annuals in 288-cell plug trays.

In the short term, this creates more plug sheets, which are on the bench longer. For example, a 288-cell plug tray takes

longer to grow than a 512-cell tray and fits fewer plugs per sheet. But after transplanting, the trays of 288 are finished about a week earlier, according to Verhoeven, and that's where the gain in efficiencies comes in.

"At transplant, the square footage used by a crop increases dramatically," he said. "The savings in dollars per square foot per week far outweigh the extra cost in growing the larger plug."

Since this is the first season that Peoria has tried this model, it's too soon to know the outcome, but Verhoeven is optimistic.

"Right now, we are tight on propagation space in a way we haven't been before," he said. "Here's hoping those calculations are accurate and we will reap the benefits in finished square footage per week used."

#### Pre-racking container shrubs

It used to be that **Bailey Nurseries**

would hand-load all of its container shrubs onto trucks for shipping, but the company has been making some changes to improve that system. This spring, it's embarked on a revamp of its container shipping process that finds workers racking all container shrubs and some bareroot trees.

Before, employees would be ready to load a truck by hand in the morning. Unfortunately, the shipping world can be unpredictable and trucks would often show up late. Managers at Bailey would have to scramble to find people to either stay late or work overtime to get the job done.

Racking in advance of a truck's arrival doesn't do anything to add consistency to the shipping process on that end, but Brockshus said it gives Bailey more control on their side of the equation.

"Our time loading may not be any less as a whole, but we now have much more

control our end," he said.

#### Doing the container shuffle

**Woodburn Nursery & Azaleas** has devised a different approach to moving containers. It came about after general manager Tom Fessler and production manager Ron Schmidt visited Europe in 2009. There they saw a buffer belt, which arranged potted plants into multiple rows. The rows could then be grasped and lifted by specialized nursery forks.

This process inspired them to arrange their own trailers by forklift, instead of by hand. It used to take four people to do the job, but now takes two.

The forks come in different sizes for different sized pots and bed configurations. They are made in-house, and they are color coded by size so that the correct fork can be easily identified. »»

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## Your efficient nursery business

Alpha Nursery arranges caches of high-demand plants near the loading dock. This helps reduce repeated long trips across the nursery to retrieve individual plants for an order. PHOTO BY CURT KIPP

### Minding the company store

A central precept of Lean is that transportation of product within the farm is wasted effort and should be minimized, though it never can be eliminated. The obvious solution is to minimize trips within the farm, or shorten their length. **Alpha Nursery**, however, has come up with a not-so-obvious solution — making each trip count.

The change came about in response to a change in the way customers place orders. They used to order a semi load at a time. “Now a lot of people have gotten away from that and order what they need, just in time,” Zielinski said.

This has reduced not just the size of the order, but the quantity of plants per selection. Alpha stocks 900 different plants in various sizes, and workers found themselves traveling to a far-flung corner of the

150-acre nursery to grab just one of something for an order. “We can’t grow 150 acres of material on 10 acres,” Zielinski said.

In response, Alpha recently started staging frequently-sold goods in strategic locations near the loading dock. These staging areas are internally referred to as “stores.” This system allows workers to move these goods in bunches, rather than one at a time. Items in the “stores” are pre-labeled and ready to ship.

“What we’ve tried to work on is like a supermarket, with a lot of plants close to the dock,” Zielinski said. “And then, we just have to keep stocking the market.”

It sounds inefficient to move plants that don’t need to ship yet. “But you get full trips,” Zielinski said. “You’re cutting down transportation time significantly. We’re

doing the work more on our terms. It’s internal.”

This “cache and carry” concept is a work in progress needing ongoing adjustment, but it is helping. “Every problem that was part of shipping, some part of it was alleviated by creating ‘The Store,’” Zielinski said. “I think we’ve got a lot of work to do to make it better. It would be sweet to put it in alphabetical order like the pick list is.” ☺



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