



Part 1 → Identifying value and waste

The key is in knowing what the customer is actually willing to pay for

BY CURT KIPP

THE CENTRAL CONCEPT OF LEAN is to identify process steps that add value and those that are wasteful, eliminating the latter to become more efficient.

It sounds simple but isn't.

Rick and Elizabeth Peters own a Wilsonville, Oregon-based Lean consulting firm, **The Peters Company**. They coach clients in the green industry, helping them enhance value and reduce waste — and they know the difference between the two. It always involves asking what customers truly want.

"The right way to look at it is from your customer's perspective," Rick said.

"Value is what your customers will pay for," Elizabeth said. "Waste is what you pay for."

By reducing waste, companies can make better use of existing resources, improve their throughput and increase their margins. But to accomplish this, companies must enlist their employees as partners in the process. Otherwise, they risk the perception that it's all about cutting workforce, when it's not. It's about making the most of one's workforce and other resources. This is especially true at nurseries, where worker shortages are commonplace and retention is critical.

"It's easy for them to feel like, 'I've been doing this process for 20 years and you're saying what I do is not valuable,'" Elizabeth said. "It's exactly wrong. People are the most valuable assets you have. The waste is not the people. The waste is the steps in the process."

What adds value?

To help distinguish value from waste, workplaces deploying Lean can use a three-way test, as Corvallis, Oregon-based annuals grower **Peoria Gardens** recently did.

"Three things have to exist simultaneously for it to be classified as value," president and owner Ben Verhoeven said. "The customer has to be willing to pay for it, it has to transform the product (or service), and it has to be free of defects. If any of those things aren't present, it doesn't pass as value added."

As it turns out, not many things that happen are really value added, but that's the power of Lean. It identifies what isn't essential.

Verhoeven's team recently held its first Lean event in conjunction with the Oregon Lean Consortium (made up of other nurseries) and analyzed its process of sticking cuttings. By identifying and eliminating wasteful steps, Peoria employees and the consortium were able to make the process 119 percent more efficient.

Such stories aren't uncommon for businesses applying Lean.

Chris Robinson is the production manager and co-owner at **Robinson Nursery**, a liner grower based in Amity, Oregon. His view is that very few actions in a nursery environment would truly qualify as value-added. "The only thing we've pinpointed as value added is the tree growing," he said.

This realization may seem daunting, but it unlocks the door to continuous improvement through evaluation and re-evaluation of workplace processes.

"If you look at Toyota, they say 50 percent of their



Lean: Identifying value and waste

Previous page, top: Robinson Nursery Inc. staff harvest nursery stock. Bottom: A work flow process is discussed at Robinson Nursery.

PHOTOS COURTESY OF THE PETERS COMPANY

JLPN uses laminated work flow charts.

PHOTO BY BILL GOLOSKI

processes are value-added — and they are way ahead of everyone,” Robinson said. “We’re a small company, but we hope to get there someday.”

The paradox of waiting

It is notable that Lean considers waiting to be one of the seven wastes (see sidebar), but in the context of plant production, waiting is required for the plants to grow and become market ready. One can say that waiting is value added; it transforms the product.

Oregon growers in particular often say they are selling time. They wait for the plant to grow, so the customer doesn’t have to. “The one thing growers are doing is growing the plant,” Rick said. “The customer is willing to pay for that growth cycle.”

Crucially, optimal growth won’t happen on its own. Nurseries control the conditions that exist wherever the plants are growing, as well as various inputs such as water, fertilizer, growing media and supplies such as stakes, containers, burlap and more.

Growers must, therefore, evaluate whether these processes add value or are wasteful. It all comes down to growing a product that customers will pay for, by performing actions and creating conditions that transform the product, in a way that results in the best product, with as few defects and culls as possible.

Widening the gap between production costs and selling prices is the art and science of running a profitable nursery.

John Lewis, owner of plant propagators **JLPN Inc.** in Salem, Oregon, said he considers trimming and limbing of liners to be value added, depending on whether it enhances the product in the



With help from Tim Wood

Lean consultants, and companies practicing Lean, commonly see the same types of waste over and over. So much so, that a mnemonic has been developed to help remember them — TIM WOOD. Each letter stands for one of the seven recognized forms of waste. They are all steps that don't add value to the product.

T stands for **transportation**, where items are moved. It can take into account the frequency of movement, as well as the distance or other factors.

I stands for **inventory** — keeping components stockpiled whether or not needed. It is often seen when these components are produced in batches.

M stands for **motion**, or excessive movement within the workspace, such as picking something up or setting it down. Reducing it can have the added bonus of protecting employee health and reducing injury.

W stands for **waiting**, where workers are forced by the process to stand idle, or components are left waiting for the next production step.

O stands for **overprocessing** — doing more work than is necessary.

O stands for **overproduction** — making more of something than the customer, or the downstream process, requires at the time.

D stands for **defects** — enough said.

“By reducing the seven wastes, we free up people’s creativity to explore things that add more value for the customer,” Elizabeth said.

end. That’s the line between processing and overprocessing, as well as between quality and defects.

“If you do it properly, you’re adding value,” he said. “If you do it improperly, you’re taking away value.”

Carlos Vergara, Lean manager at JLPN, views the thinning of seedlings through the same lens. “Thinning, if done wrong, is bad,” he said. “If done well, it’s good.”

It isn’t always about eliminating steps from a process. JLPN started growing its crop of hornbeam liners outside, which introduced more transportation into the production process. Although transportation is considered a waste, in this case it gives the trees better movement of air.

“We get more trees at a higher value than if we hadn’t moved them,” Lewis said.

The same happened when JLPN increased the spacing between kousa dogwoods in a production house. It was more work, but the result was increased caliper measurements.

Similarly, Robinson Nursery began staking containerized plants to the ground so there would be no need to set them upright

again every time they fell over. By adding one step, they reduced a step they were repeating over and over. “The stakes are non-value-added, but they reduce non-value-added actions,” Robinson said.

The nursery also began to dibble plug holes by machine, not by finger.

“This is still a non-value-added action,” Robinson said, “but we eliminated very much of the waste of the non-value-added action. Once you eliminate the non-value actions, you can streamline the process.”

A door to the future

Telling value from waste can be a challenge. It often involves giving up assumptions about what is valuable and putting one’s nursery operation under a microscope. By documenting processes and examining each step to determine where value is truly added for the customer, one can eliminate waste that was undetected, or built into assumptions, for years if not decades.

“The whole thing about waste is, you’ve got to uncover it,” Rick said. “The fact that it’s been done this way for generations is irrelevant.” ☐