

GROWERTALKS

Cover Story

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All Aboard the Efficiency Train

Jennifer Zurko

In years past, there may have been a fleeting thought cross your mind that your sticking line needs work or that your shipping area had a few bottlenecks, but you were always able to file it into the mental “later” bucket. When the COVID-19 pandemic hit and growers were working feverishly to keep up with the increased demand, it didn't just shine a light on efficiencies—it was a spotlight.

Gary Cortés and his team at FlowVision have been helping greenhouses, nurseries and other horticulture businesses become more efficient in their processes for 17 years. And just like the customers they serve, it's been an interesting year for them.

“This year was a real challenge and COVID just exposed it,” said Gary. “I think more so this year because of the increase in sales from a lot of our customers; they started struggling to keep up with demand and their inefficiencies were really highlighted more than ever. They worked a lot more hours, shipping a lot more product, and they realized that things had to change because they were just super inefficient.”

For many operations, the workers were happy to be collecting all of that extra overtime, but after the third week of working 16-hour days for six days straight, they started to burn out. And when burnout sets in, quality suffers, says Gary.

This is when Lean Flow practices—which focus on “leaning out the process and making the product flow”—have become a godsend for many, as doing more with less for longer pretty much became the mantra in Spring 2020.

Businesses who'd already implemented Lean Flow into their operations before the pandemic considered themselves lucky to have these methods in place during the time they needed it the most. Here are a few who've benefited from Lean Flow improvements.

Prides Corner

Lebanon, Connecticut

Five years ago, Sebby Ruffino and his team were transporting finished product via conveyor belts that would move the product from the field to wagons that would then bring the product to the shipping area to be loaded onto trucks. As an example, if 30 trucks had to be loaded, workers would have to go out in the field or in the greenhouse 30 different times to pull product and bring it to the shipping area. This would take a long time—sometimes up to 12 hours at a time.



One common solution that FlowVision has implemented with other operations (and that's been discussed many times in these pages) is their "supermarket" system. This is when all of the finished product is pulled and placed on racks beforehand and brought to the shipping area. Once the trucks are ready to be filled, workers can "pick" what they need from the racks that are already in the shipping area to fill each order (like when shopping in a supermarket). Instead of having to schlep all the way out to the field or greenhouse, everything is waiting in the holding area.

Pictured Top Row: During peak shipping time, Prides Corner used to use a conveyor belt (left) to move product from the field or greenhouse to be placed on wagons that were then filled based on order and taken to the shipping area to fill the trucks (right). As you can expect, this took many hours.

Bottom Row: With the new "supermarket" solution from FlowVision, workers "pick" from pre-filled racks that are housed in the shipping area (left). Instead of having to waste time going out into the field or greenhouse for product, all of it is on the dock, where racks can be filled by order and rolled onto the trucks (right).

The time saved on not having to spend tedious hours gathering and loading product is now being better used for workers to spend on other tasks, increasing productivity by 25%, said Sebby.

"It not only saved labor in the field, but we're getting a better product because we've been able to keep up with growing tasks we'd had to put on hold during shipping in the old model," he explained.

Prides Corner also changed from "deck stacking" with shelves in their trucks to rolling racks, which means they've been able to cut down on the number of trucks because they're able to load about 30% more product into the trailers.

During the last few years, Sebby said their seasons have been getting shorter because of weather issues, sometimes not being able to ship finished product out until April. Since they've had the new supermarket shipping system, they've been able to get more product out in a shorter period of time, on time.

The system has proven to be very useful, as Prides Corner continues to experience double-digit growth—especially this past spring at the height of increased demand during the pandemic, said Sebby.

"Our owner [Mark Sellow] said many times that without this system we would never have been able to grow the company the way we've grown it the past five years," he said.



TreeSource Citrus Nursery

Exeter, California

This West Coast citrus liner company always embraced improving efficiency and increasing productivity—even before they asked FlowVision for help. According to TreeSource's CEO Roger Smith, they've always looked at ways to do something better. But those conversations were always internal ones.

Pictured Top: One of the areas at TreeSource that needed a lean process was propagation.

Bottom: One of the other processes at TreeSource that was improved by Lean Flow is the transplanting area.



One day, Roger said he had “an epiphany,” realizing they needed “higher-level thinking” when it came to figuring out how to be more productive. And his a-ha moment came at a perfect time, as they were getting ready to

expand their production.

“They realized they didn’t have the time or enough resources or the depth of knowledge that we had to help them find solutions,” said Gary, who met Roger at one of the Cultivate shows. After they talked, Gary and his team went to California to see how they could help.

When they arrived, TreeSource had a lot going on—they were upgrading old facilities with automation and new technology, while also working on an expansion that would add an additional 2.8 million units to their production. Roger was looking for help in all of these areas.

A couple of areas that needed a Lean process was seed transplanting and propagation. At the time, TreeSource produced 1.15 million liners; their goal was to bump it up to 1.8 million, along with reducing labor and improving efficiency by 8%. No small feat.

A few parts of the improvement process were really simple solutions, like moving the restrooms closer to where the workers worked. FlowVision found a lot of time was spent on people just walking to the bathroom.

The other system they implemented was “progressive seeding,” where they had teams of people sowing the seed instead of one person at a time with one tray. They also made improvements to the transplanting area, said Gary, by developing scale drawings, repositioning personnel and carts, teaching staff how to flex between tasks, transitioning between shifts, and developing new support equipment to optimize the work flow.

All of the lean improvements allowed TreeSource to increase efficiency by 13%, which translated into a six-figure savings, well beyond their original goal.

And they’re not done yet—Gary said this is a multi-year, multi-faceted project where FlowVision and TreeSource continue to work together.

“The neat thing about it is, like with many of our customers, they continually look for ways to get better,” said Gary. “So they’ll have us come back and work on other areas to improve upon.”



Sun Bulb Co.

Arcadia, Florida

Sun Bulb is an interesting company in that it does a little bit of everything. It's a greenhouse growing operation—primarily orchids, bromeliads and ferns—but they also sell branded gardening products, including Better-Gro, and Dynamite Plant Foods, and they are the North American distributor for SK Pottery.

Pictured: Sun Bulb includes “value-add” accessories like decorative pots and plant stakes with their product for the box stores. This process was extremely inefficient, and once they repurposed and improved the space, efficiency increased 15% to 20%.

President and CEO Rod Hollingsworth said that he and his team were looking to expand their finishing production area, estimating that the project would cost about \$500,000. Many of Sun Bulb's finished products include what Rod calls “value-add” elements—additional accessories to the plant, which can be anything from a decorative pot to plant stakes that provide the finishing touches before the plants go out the door.

Rod knew that the process to manually place the value-add elements was extremely inefficient and that the prospect of trying to expand an already inefficient area was counterproductive. So, before they traveled too far down the path, Rod called in FlowVision to conduct an assessment to make sure they were on the right track.

After FlowVision came in, what Rod thought would be a great undertaking turned out to be much less of a project than he originally planned. Many of the changes suggested by FlowVision were relatively simple and most of their original space just had to be “repurposed.” Once the plans were in place, Rod realized they didn't really need to expand at all—just improve upon the space they already had—so the project ended up only costing Sun Bulb \$150,000.

“They came in and completely transformed it and changed us into a much more efficient environment,” said Rod. “They re-allocated some things we were doing in the warehouse at the time, moved some things around and enabled us to put really controlled, timed processing back in to the production lines for that value-add and take it out of the greenhouse environment.”

In addition to re-flowing their space, Sun Bulb began implementing FlowVision's resource planning tool that was custom-built for them to help keep track of inventory and assign tasks to their workers, allowing them to be much more flexible.

“It's really enabled us to plan our production, see what our capacity is, and ramp up or pull back and flex labor to other parts of the operation, creating a really efficient model for us,” said Rod. “Prior to that, it was a more of a ‘we-can-do-it’ motto. Work, work, work and see how much you can get done. Now, it's a much more numbers-based plan.”

In addition to the cost savings, Rod says they increased efficiency by 15% to 20%. And the Lean Flow system has proven to be very helpful with fulfillment for their gardening product business, too.

“We needed more of an engineer's eye on our processes,” said Rod. “When you're able to understand how long it should take to produce these products, you can hold the managers and their staff accountable.”



Van Belle Nursery

Abbotsford, British Columbia

Van Belle was one of the first green industry operations to adopt Lean Flow practices and the company has continued to work with FlowVision for over 15 years. Starting with propagation, Van Belle has implemented Lean Flow in their shipping department and other areas of the nursery.

And during the last 10 years, Van Belle has experienced significant growth, so including Lean Flow into their expansion ahead of time has helped them plan their builds better, resulting in an appropriate-sized facility, as well as better product flow.

Pictured counter clockwise from top: The “supermarket” at Van Belle’s loading and shipping area. n Workers picking and filling racks from the supermarket. n The supermarket fulfillment system is so easy to learn that Dave Van Belle’s 8-year-old son Pete was able to help during peak this past spring.

“Gary’s not there to spend your money; he’s there to save you money,” said owner Dave Van Belle. “He always looks at the big picture, asking, ‘What’s the end point?’”

After several different implementations of Lean Flow, Van Belle had the supermarket-style of filling and shipping orders put in place for the finished plants business. Dave admits he was reluctant at first—after all, this system actually added an extra step to the process. But after he saw the benefits and time savings, Dave said it was worth it.

The most recent project was the expansion at what Van Belle refers to as their Page Creek location, where they finish perennials, annuals, and some tropicals and shrubs. They integrated the picking process throughout the whole nursery to stock the “supermarket” near the shipping area, along with working on how the traffic would flow smoothly throughout the greenhouse.

Dave said that the whole system is so easy that you can train a new person to work there in 60 minutes. Even Dave’s 8-year-old son was able to help during the busy shipping season this past spring, picking and filling racks, and rolling them to the trucks.

“The whole thing is designed to be scalable. I mean, if an 8-year-old can do it ...,” said Dave. “We’re turning our inventory over much more quickly and much more efficiently. There’s no chaos, no one’s yelling, ‘Where’s that plant?!’ It’s a nice, steady cadence. We’re not always perfect at it, by any stretch, but it has worked and it’s proven itself.”

Dave said that he’d have to sit down and really crunch the numbers to know exactly how much they’ve saved in time and labor, but what he does know is that the amount of plants that are processed per person, per hour in general, has gone up.

“We’re averaging 12% growth a year and we haven’t increased our facility size, so I know that we’re doing more,” he explained.

Dave has plans to extend the shipping area, but will consult with Gary first to make sure the flow and sizing is

appropriate. And they may end up moving to a “zone-picking” process to improve the flow of plants into the supermarket. (Zone picking means one person is assigned an area of plants in the nursery, and when a material handler or driver comes with empty racks to be filled, the zone worker is the one who puts the plants on the rack.) He’s also looking to improve Van Belle’s young plant section, too.

“I would encourage other growers to explore FlowVision before you expand. That’s the best time to save money and it’s worked really well for us,” said Dave. “Spend the time up front and try to map out the process in advance so you have a good sense of it.”



Windmill Nursery

Franklinton, Louisiana

A woody ornamental operation that spans over 425 acres, Windmill Nursery serves a wide range of customers (big box to re-wholesalers) from Oklahoma to Virginia. At peak, they employ 80 H-2A workers and 50 domestic.

Pictured Far left: The “supermarket” is under cover at Windmill Nursery’s shipping dock. n Once the racks are filled, they’re ready to put on the trucks—usually

within 30 minutes.

Todd Ellefson, owner of Windmill, said he visited the Loxley location of Flowerwood Nursery in Alabama and saw their supermarket order fulfillment system that FlowVision had done. He was really impressed, and at the same time, it also made him realize they could greatly improve their efficiency at Windmill.

“We were growing at a pretty fast rate and I just saw some inefficiencies in the pulling and loading process,” Todd explained. “Essentially, that’s what spurred me to contact Gary.”

Todd said they pretty much opened up the entire nursery for FlowVision to look at every single aspect of the operation. Gary and his team came up with a plan that showed Todd where he could spend the most amount of time and make the most impact, which, like with many growing businesses, was the loading and shipping area.

So, eventually, Windmill had a supermarket-type system of their own to help alleviate some of the bottlenecks they were experiencing and streamline their order-fulfillment process. This included expanding their loading dock to almost double the size with a smooth pavement so the racks could be moved more easily.

At the time I spoke with Todd, he and his team were battening down the hatches, preparing for the impending Hurricane Delta that was expected to hit Eastern Louisiana. Being in Louisiana, hurricanes are a regular part of life, and since Windmill has had a more efficient shipping area, they’re able to plan ahead to get orders out the door before a bad storm.

“Three weeks before [Hurricane] Sally was coming at us, I called my sales manager Sunday night and said, ‘Hey, it looks like Tuesday we’re going to get hit.’ We had four or five trucks that were tentatively lined up for Tuesday. I asked him to please get with our sales reps and tell them to call these customers to see if they could move up their loading to Monday.

“We basically got those orders entered and released those trucks at about 11:30 Monday morning, and we had them

all loaded and off the nursery by 5:00 that evening. That's incredibly efficient. We couldn't have done it years ago. It would have taken us until 8:00, 9:00, 10:00 to pull all of those orders."

For five trucks, Todd estimates that was about 27 different orders being pulled and loaded in less than six hours. And it would have been less if one of the trucks wasn't running late.

"Just being able to adapt the rolling racks into a supermarket, we can load a truck before it even pulls up," said Todd. "That flexibility, for us, has been huge."

Because Windmill uses broker trucks, there were always times when they had to wait around for them to arrive, which wasted a lot of time, and then once they finally got there, they would have to keep more staff past working hours to load the trucks. Or a bunch of trucks arrived at the same time, which caused even more of a chaotic environment.

"They can load the truck in 30 minutes now," said Todd. "So it's improved the process in a lot of ways, especially with the new [trucking] regulations because we can expedite their loading and unloading time."

When Windmill increased the space of the loading dock, all of the assembling and loading was put under one roof. Now, they have nine different bays where they can pre-assemble over 15 loads ahead of time. And Todd said there's still room to expand the loading area out even more if they need to.

Todd estimates that between his gross cost in labor, and inventory value increase and sales increase, his labor costs have gone down, while his sales have gone up. He says the increased efficiency during the pulling process has also been reflected in the front office as well, where all of the orders and labels are started. All in all, Todd believes it's at least a 20% cost savings.

"It organized the chaos," he said. "It's not as panicky—it's just a lot smoother. Everybody knows how it goes and they do their job. That's probably the biggest thing. When we hit that peak in spring, it's more organized chaos, that's just the best way to put it. We can have a high-volume shipping day and 95% of the staff can leave on time." **GT**