

Time to Get Lean?

by CHRIS BEYTES

If you're in need of more space, more people or more equipment, maybe "lean flow" is for you

There's been a fair bit of talk around the industry lately of something called "lean flow." Sessions at OFA put it on the map, and even the renowned Seeley Conference plans on covering it at their 2007 meeting in June.

But "thinking lean" is not new; some growers have been using lean flow for five years or more. And even though giants like Ball FloraPlant and Kerry's Bromeliads were early proponents (see Kerry's column, "Henry Ford's Legacy" in the March 2003 issue), it's not just for big guy—nearly any grower can use lean flow principals to improve their efficiency. In fact, if you find yourself needing more space, more people or more equipment to complete your current tasks, regardless of your size, you're a prime candidate for lean flow.

What Is lean flow?

Definitions abound, but according to Jim Womack and Dan Jones, two guys who literally wrote the book on the topic, it's a way of setting up work areas and work flow that lets you "do more and more with less and less—less human effort, less human equipment, less time and less space—while coming closer and closer to providing customers with exactly what they want."

Lean flow started with Henry Ford's assembly line ... but Henry's system only allowed for black cars. Toyota put Henry's concept to work in the 1930s, and 70 years later

they're poised to become the world's biggest auto maker. Today nearly all manufacturers use some form of lean flow system.

But what does this mean to your greenhouse? It means that you might be able to reorganize your production barn to gain space instead of adding on to it. You might be able to finish packing by 4 p.m. instead of making your employees work overtime. You might be able to fill more orders during peak days. And you might have fewer mistakes in those orders, too.

Enter FlowVision

Gerson "Gary" Cortes is the guy who brought lean flow to the green industry, first with Kerry's Bromeliads and then with Ball Horticultural Company. Gary is a partner in FlowVision, of Dillon, Colorado, a consultancy that works with major firms such as Cisco Systems, John Deere and Ingersoll Rand.

Gary has found that floriculture is very labor intensive. But at the same time, he doesn't think we are unique or special—we are nothing more than "less-than-optimized factories." Which means we are perfect candidates for saving money with lean flow principals. "There's a lot of waste," Gary emphasizes, adding that, based on his experience, the typical nursery can easily save 15 to 25% in labor on many processes.

But what counts is the real world. How has lean flow worked for grow-

ers? We asked four of them to find out what sort of results they got and if they would recommend other growers take a serious look at lean flow.

D.S. Cole Growers

Doug Cole was an early believer. He owns young plant and finished plant nursery D.S. Cole Growers in New Hampshire. Doug started working with Gary about five years ago, after a visit to Ball FloraPlant's Costa Rican location, where Gary had been doing some consulting. Doug recalls that he was most impressed that Gary's solutions were low-tech or no-cost—simple concept changes.

"That's what really sparked my interest, the fact that you're looking at *how* you run your procedures," Doug recalls. "It wasn't necessarily an equipment investment, a software investment. It's a mindset, a philosophy of material handling."

D.S. Cole, which ships young plants from four acres in New Hampshire, had FlowVision come in to improve their pulling, packing and shipping processes. Doug says Gary made "simple detail" changes, such as table configuration, where to put supplies, how much space workers need—"the real simple stuff, but if you don't get it right, everybody is struggling," Doug says.

"When you get done, you think 'well, that was pretty easy.' But none of us are experts on how to do it. We wing it," he says. "We're plant growers."

Van Belle Nursery

Dave Van Belle was already into the whole Deming philosophy of lean flow when he happened across the *GrowerTalks* column by Kerry Herndon on his experiences with FlowVision and lean flow, so he gave them a call. “I really found [lean flow] very applicable to what we were doing, and the philosophy fit mine—with regards to employees, processes, suppliers and so on.”

Van Belle produces a couple million woody ornamental plant liners per year in British Columbia. Dave wanted Gary to look at Van Belle’s propagation processes, which he did, in minute detail, reworking the process and making some equipment adjustments. The results?

“[FlowVision] can typically wring a 30% productivity improvement on the first try,” Dave says, “and I could say that would be accurate with us.” He admits it’s hard to quantify the old system to the new, because they’re so different, “But we feel we have improved that much (30%), for sure.”

Kraft Gardens

Like Dave Van Belle, Kevin Kraft had been reading up on lean flow. And he’s seen the results at another Florida nursery, Kerry’s Bromeliads. But while his management team had worked diligently to try to implement a lean flow system themselves, it wasn’t until they brought in Gary that they were able to make it work.

“We decided to work on our shipping department first, because we were running out of space in our packing area,” Kevin explains. “We had quotes to expand our facility for \$150,000. Within a half of a day of working with Gary we determined that we not only had enough room in our packing area, but enough room for the next few years!”

Gary spent a few days at Kraft, and within a few weeks was making changes in the shipping department. “We started seeing the positive results immediately,” Kevin says. “Now our shipping department runs much

smoother and is more efficient, with fewer employees. Those employees are now helping in other areas of the nursery where we were behind.” Kevin says other benefits include needing fewer trailers, safer conditions for workers, and less turnover, resulting from happier workers, a cleaner facility and less scrap.

American Farms

Jim Pugh from American Farms, a large bedding plant producer in south Florida, was in the middle of an “ambitious” automation program (three lines with extensive automation), plus a new headhouse and propagation house, when Kerry suggested he talk to FlowVision before investing so heavily.

Jim agreed, and had Gary Cortes down for a look-see. Luckily, Gary thought the automation investment was “pretty much on target.”

“But the shipping area was where he saw a lot of potential savings,” Jim says. “We knew that—we know our own faults and we know the direction we needed to go, but we can’t seem to get there.”

Jim also attended a FlowVision workshop to learn more about lean flow. When the new line is installed, he’ll have Gary back down to streamline the whole operation.

“We’re gung-ho. I think it’s definitely the way to go. And we think there could be enormous savings and quality control improvements in all areas—shipping, production, growing, all across the board.”

Is lean for you?

We hope we’ve shown that you don’t have to be big to implement lean flow in your business. What you do have to have is bottlenecks ... and what business doesn’t have those? Young plant companies seem to do especially well in finding efficiency improvements, but finished bedding producers of all sizes, like American Farms, can find improvements as well. Those who’ve used Gary’s services have no problem recommending them to others.

“I think any grower can try to implement lean techniques,” says Dave Van Belle.

Jim Pugh echoes his sentiments.

“I would think that any operation of virtually any size can benefit from it. Obviously, the bigger ones have more to gain than a very small mom & pop operation. But we all can do it more efficiently.”

Doug Cole agrees.

“I think Gary, or someone like him, can improve almost anything,” he says. “He did a lot of things that really didn’t cost us money, but saved us money. We didn’t change any software, we didn’t purchase any equipment. It was the setup of our processes, people and materials.”

That middle word, *people*, is key, according to everyone who’s implemented lean flow. Lean flow is a cultural change—and some people will fight change of any kind. Dave Van Belle says lean flow requires dedicated leadership from the top down. “If the president or owner isn’t 100% behind it, don’t even attempt it.” He adds that it’s even more difficult for a seasonal business that isn’t doing the same processes year round. “Since changing production methods can be very expensive, you must know the philosophy and be committed,” he says.

Kevin Kraft says, “It’s human nature to stay in our comfort zone, where we’ve been doing things for a long time. It wasn’t without some difficulty and resistance for us to make the necessary changes to implement Lean Flow, but it’s been well worth the effort. If we can do it, you can, too!” ▶

So, the question you're all asking: What's it cost? Gary's fee is \$2,200 per day, plus expenses. Expect him to stay several days, learning your business. But if you calculate a 25% savings on a process such as shipping, it's easy to figure your payback. Considering that all these growers have had Gary back time and time again, it must be worth it.

Another option is FlowVision's two-day workshops, like the one Jim Pugh attended. Gary holds several of them a year, at a cost of \$900 per person. Go to www.flowvision.com for dates and details. ■

Gary's Five Tips for Implementing Lean Flow

1. Link your processes together:

Link your flat/tray filler with your propagation, seeding line, and transplanter.

When you pull trays from the ranges or greenhouses, have them go directly to the pack line. Don't stage them in an area so they can be worked on later. The quicker they're processed the less floor space you will need and the less likelihood for damage.

By linking the processes together, you reduce the lead time to produce the product, reduce floor space (you're not filling trays/flats and staging them up—taking up floor space), and improve the quality because the plants aren't sitting around to be damaged.

Think "pipeline": just like fluid in a pipe, the shorter the pipe, the quicker it comes out and the less in the pipe.

2. Cross Train your employees to become flexible employees:

By having employees who are trained in a minimum of three operations (jobs), they can easily move from one operation to the next.

3. Understand how long it takes to do each task and then calculate how many people it takes to do the work.

Know how long it takes to do the work and then multiply it by the number

of products you want to process per day so you can calculate how many people you really need.

Also, understand the time that your product is sitting and not moving through the "pipe." You may surprise yourself. Remember that the goal is not to make your people work harder, just work smarter.

4. Track your output by hour

Once you've determined how many products you want to produce, divide it by the work hours and create an hourly target. If you calculated how many people you needed as described above, you can then easily determine how the day is going.

Track this visually at the process, noting the targeted hourly output, and write down the actual hourly output. This will bring attention to something going wrong immediately instead of waiting until the end of the day.

5. You don't need to spend a lot of money on automation to become more productive

Lean Flow is not about spending a lot of money on new equipment or automation. Maximize existing equipment utilization. Automation is usually costly and inflexible. Lean Flow is all about flexibility.

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