

2021 / CASE STUDY

Part 3: Bluestone Perennials Wrap-Up: RFID, ROI, and a 'Warm Blanket'



In February 2020, everything seemed to be business as usual for Madison, Ohio-based Bluestone Perennials. The direct-to-consumer grower and seller of flowers and decorative plants was gearing up for its annual busy season, a crazy time where long days are the norm but the company's commitment to fast order turnaround doesn't waver.

By March 2020, Bluestone was in the middle of a world turned upside down. Demand was through the roof, manpower shortages were the norm, and the company literally did not know where its next flat of plants was coming from – or going to.

At that point Bluestone CEO Bill Boonstra made a key call. He had been testing an RFID-based inventory-management (IM) system from Arbré Technologies alongside his traditional IM process.

Boonstra needed resources to handle the crush of orders, so he decided to go all-in with Arbré, with virtually no shakedown period or A/B test.

If Bluestone Perennials was going to survive the perfect storm of a pandemic and a tidal wave of orders, Arbré's RFID platform was going to have to deliver dead-on accurate inventory and cycle counts every day for who knows how long.

It wasn't a call Boonstra was eager to make, but he made it. Here's how it turned out.

COMPANY OVERVIEW

LOCATION	Madison, Ohio
FOUNDED	1972
TYPE	Perennial Flower Nursery
OWNER	Bill Boonstra
WEBSITE	bluestoneperennials.com

RESULTS SNAPSHOT

25%	10X
SALES REVENUE INCREASE	MANPOWER ROI



Setting The Stage ... One More Time



How crazy was crazy? Here's how Boonstra characterizes it:

"We literally went times seven in all aspects of the business overnight. We couldn't figure out what was going on. Our phones slammed shut, our voicemail boxes slammed shut, [and] in 24 hours, literally everything just went smash.

"The whole summer and fall tripled, and that was only because that's only as much product as I could possibly get to sell in time. If we normally had one semi coming in, we had four and a half semis.

"What do you do? We had to shut our phones off. We had to close our garden center. We had to book an order and wait for weeks to ship it, which is unheard of. If we're more than a couple days we're upset – why aren't we meeting our customers' expectations?

Reallocating manpower wouldn't work because every facet of the business was slammed. If Boonstra took people off of customer service, the order-turnaround times would get even longer, and customers would be even more upset – but the same thing would have happened if he had taken people out of the greenhouses and put them on the phones.

The only thing that could really help was a magic bullet that would free up personnel, not shift them from one hole in the dike to a different hole in the dike.

That came in the form of Arbré Technologies' RFID-based inventory-management system. The plan was for Bluestone to run the Arbré platform alongside the existing IM system and see how they both perform.

That plan was quickly blown up, along with the rest of the business. Boonstra recalls how it went.

"We just said, 'We're all in. We're going to rely completely on our RFID stuff' – and we did, and it worked," he says. "It held its own.

"Now, granted, all the stuff that Arbré Technologies brought to the table was automating semi-automated systems I already had in place, so it's not like we didn't have this information. But the time it takes to compile it and get that information ready – I wouldn't have the people to even get the information together, nor would I have had the people to act on that data.

"[With Arbré], people were just acting on the data. They did not have to compile, mark, flag, count, cycle count, any of that. It was there.

"It was huge. There's absolutely no way we could have done as a good a job [without it].

Thanks to the Arbré Technologies platform, four people were able to be freed up to tackle other essential tasks around the business – and there were no shortage of those.

In order to balance home and work, some employees were coming in at midnight, and working in the greenhouses by the light of headlamps, with railroad lanterns on their carts. Others were coming in before dawn and working until noon.

While there was a reasonably ample labor pool to draw from, there wasn't enough room to put all the workers they could have used and still observe social-distancing guidelines.

Boonstra and his wife were lucky to get a full night's sleep. When Boonstra says, "This is not an easy business," he speaks from experience.

The Fall Brought No Respite

Normally, the changing of the seasons from summer to fall means an opportunity for Bluestone to catch its collective breath and focus on some of its best customers – hard-core gardeners who spend as much time in their gardens in the fall as they do in the summer.

“To garden in the fall – that’s like runners that are running in 30 degrees and golfers that golf in the rain,” Boonstra says. “This is a passion of yours. You’re going to do this.”

In 2020, however, there was hardly any time to focus on those customers. Orders were backed up, shipments were backed up, and a bunch of the new customers Bluestone had acquired in the summer were ordering for the fall, even though the customer experience the company had been able to deliver many of them was substandard by Bluestone’s standards.

Each of the inventory-management challenges Bluestone faced in the summer was back with a vengeance in the fall – “the shipping window from hell,” as Boonstra put it.

The core of Boonstra’s response was to add flexibility and functionality. The phone system was changed to VOIP with Wi-Fi and Bluetooth so customer-service representatives can take calls from anywhere.

Another piece was to add functionality from Arbré Technologies to have an even more complete picture of where stock is in the growing cycle.

“We’re still dropping pieces in,” he says. “We’re tracking all of our saleable product with RFID tags, and we have since brought it into our production arenas where we’re tracking our pre-grows, our bought-in material, our stock, our trial plants, all that, to have a holistic, 360-degree, 40,000-foot, bird’s-eye view of what the heck’s going on in the nursery.”

That became even more important through the fall and into the spring as shipping cycles are shaping up to be even more compressed when compared to previous norms.

“We’re trying to pack about two more weeks of shipping

into the 12-week window that we’ve got, so we’re going to have to almost ship 50% faster a day,” Boonstra says. “We’re working on that, and getting ready to see if we can make that jump.”

That leads into the 2021 season. Boonstra is expecting to retain between two-thirds and three-quarters of the customers he gained in 2020 – but he’s not prepared for a repeat of 2020’s tsunami of demand ... and he’s keeping his fingers crossed.

“I know what’s coming,” he says, “so I can try and position us a little bit better, but if we get hit that hard again, if we get another 40,000 emails, I’m not positioned for that. I could maybe do 20,000, 15,000, and then things are going to break.”

Fortunately, this time around Arbré Technologies will be on the job Day One.

“Arbré Technologies is helping us with the front end of the inventory management,” Boonstra says. “It doesn’t help us ship any faster. It does help us on sales levels and the locations of the inventory coming in, but with that facet of the business it’s purely how much horsepower do you want to put on it. Do you get another tractor and another trailer? It’s not logarithmic, it’s linear. It’s scalable.

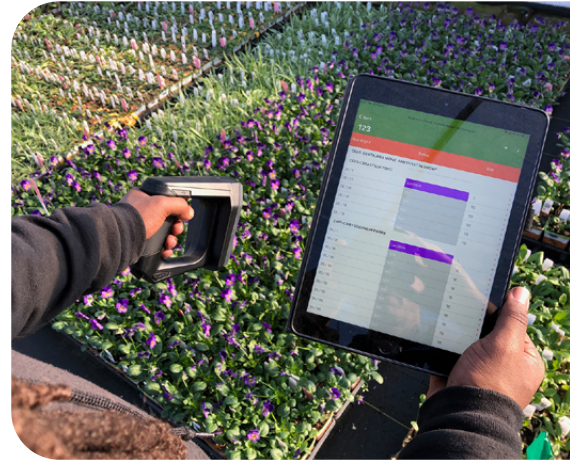
“[With] Arbré Technologies, that’s one piece of the business I don’t have to put labor to. It can run, and I can repurpose those players into decision-making roles, acting on the data in other places.”

Figuring the ROI

So how do you put a return on investment figure on what Arbré Technologies' RFID inventory-management system has meant for Bluestone Perennials? As Boonstra said, the system doesn't have a huge impact in any other aspect of the business other than inventory.

(Just to be clear, AT's systems do a great job with shipping notifications and subtracting shipped items from inventory. Bluestone had its own system in place for that, and didn't need AT's platform.)

Boonstra has some thoughts on ROI that we'll get to momentarily, but first, let's do our own calculations, based on business growth and manpower utilization.



01 GROWTH

The first factor to consider that Bluestone has grown its operation based on its 2020 sales. It gained a lot of customers through the fall selling season, and it believes it can hold onto to more than two-thirds of them, and convert them into repeat buyers.

On the strength of that, Bluestone has built eight new greenhouses covering more than an acre, and has just put up a 40x100-foot greenhouse, to expedite shipping.

To hear Boonstra tell it, "we would not have survived if we hadn't been that computerized and had those systems hooked up and semi-autonomous" – and that includes Arbré Technologies' inventory tracking program.

If you set Bluestone's 2020 revenue at a purely arbitrary figure – say, \$2 million – the difference between \$2 million in revenue and \$0 in revenue (from a non-functioning company) is \$2 million.

If you put the cost of an RFID solution at \$25,000, you can justify an 80:1 ratio between return and investment. If the revenue is higher and the cost lower, that ratio would only increase.

25%

INCREASE IN SALES REVENUE

To move away from purely theoretical what-ifs, Boonstra estimates that without Arbré Technologies he would have been able to meet about 80% of the demand he actually met, "but it would have upped the 'ouch' factor considerably."

Looking at it differently, if Bluestone did \$1 million in revenue in 2019, and had sufficient demand to do \$3 million in 2020, in Boonstra's estimation the company would have missed out on about \$500,000 of that incremental \$2 million.

02

MANPOWER

A more conservative approach is to consider Boonstra's comment that implementing AT's platform freed up four people to do other work.

If they're paid \$40,000 a year each, or roughly \$20/hour, that's \$160,000 in manpower costs. If the solution cost \$16,000/year (and bear in mind, these are very rough numbers, though they're in line with actual costs), the ratio of return to investment is 10:1.

10X

03

HOW BLUESTONE CALCULATES ROI

The way Bluestone calculates ROI on its RFID investment is ... it doesn't. And Boonstra has some very good reasons why.

As he says: "Arbré Technologies helped automate the data collection aspects and removed human error from entering cycle counts. However, the total time generating RFID tags, inserting the tags, and pulling the tags when product is shipped is pretty much a wash with our previous methods.

"The huge difference is that RFID labor is in the off-season and not happening in our shipping windows. Before, the updating of tracking info was during the busy season. I can't understate how big a change that is."

Other major savings, according to Boonstra, are soft costs that are hard to account for. They include:

- **Not overselling a variety.** How do you track a missed sale, where you could have more if you actually had it in stock? Did the customer buy a different variety from Bluestone, or simply look somewhere else? Bluestone can't answer those questions.
- **Complete inventory status visibility** to all players at all times.
- **Tracking pre-grow inventories** for conversion into final product size.
- **Reduced friction between office and shipping on customer service issues.** Boonstra estimates that Arbré helped reduce friction by about a quarter, but it's hard to capture.
- **Saving time in recounting plants, verifying locations, and finding missing inventory.** Here the savings could be as much as the hours allocated to one and a half employees, making it possible for three employees to be assigned to other tasks.

66

"We are also protecting our hard-won reputation with our customers," he adds. "We hate to lose their trust by not having the plants we think we should have. There's also the cost of contacting a customer to resolve issues."

99

Summary

No matter how you calculate ROI, the numbers look good. And when you account for the human factor, that Bluestone not only kept its own people employed through the pandemic but was able to hire people laid off from jobs in food service and other heavily impacted industries, the numbers are only the beginning.

Bluestone Perennials has come out of the pandemic a better, stronger company than the company it was before – which was a pretty strong company by any measure.

Arbré Technologies has come out of the pandemic as a trusted partner of Bluestone, there when Bluestone needed them most, able to help Bluestone through the storm to the other side.

As Boonstra says, “We are so much stronger, because that which doesn’t kill you makes you stronger. That didn’t kill us – and our new bar for what is just ridiculous, for what we could never, ever, ever do, we so far blew by that if we came back to this we’d just be like idling and wondering why this is so easy.

“That recalibrating of our internal expectations on what we could do as a company surprised everybody. They had no idea we could do that. I hoped we could, but I didn’t know that, either.”

When it comes to Arbré Technologies’ role, Boonstra is equally enthusiastic.

As he puts it, “So you’re dealing with all these unknowns, right? You’ve only got snippets of information, where you’d like reams of data to make your decisions. Some of these decisions you’re making are more back-of-the-neck than empirical – it kind of feels right. If you’re basing all of that on top of inventory numbers you don’t believe in, that you don’t have confidence in, God help you.

“Arbré Tech is like a warm blanket because I know what my inventory is out there. It’s being updated, and every time somebody walks by something they don’t like or sees a change, with a click-click it’s in the system. Everybody sees it, it’s gone completely through the company and outside the company, through our data feeds to our websites and our retargeting on our Google ad feeds and our shopping and all that stuff.”

Without Arbré Technologies, in Boonstra’s words, “it would have just been ugly. We would not have come out with the Bluestone culture or the service that we give to our customers.”

Business survival, culture survival, service survival, and a very impressive ROI – Arbré Technologies delivered for Bluestone Perennials, across the board.



Arbré Technologies, Inc. is a Wisconsin-based company that uses state-of-the-art software and innovative hardware to help horticultural businesses and other green asset companies efficiently manage inventory – improving workflows, eliminating waste, reducing time, decreasing costs, and improving margins.

To see if we can add value to your business, contact us for a quote:



+1 (414) 502-7359



CONTACT US ONLINE