

GROWERTALKS

Features

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The Value of Automation

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You're strolling down the aisles of Cultivate, checking out what's new. You walk by one of the booths with fancy greenhouse machines working away on imaginary plants and you see it ... the transplanter you've been secretly coveting for a couple of years.

You want to walk up to it just to see it in action, but you don't want to give in to temptation. After all, there's no way you could afford a machine like that ...

That's something a lot of manufacturers hear all of the time. They meet many growers who would like to bring more automation into their operation, but most times,

it's the price tag that stops them from buying. As a couple of them have told me, investing in a piece of equipment that can help your business be more efficient—and most likely more profitable—is indeed realistic and extremely important if you want to move your business forward.

Pictured: A worker loads cuttings into one of more than 30 ISO Group cutting sticking robots at Dutch chrysanthemum breeder/propagator Deliflor. Metrolina Greenhouses was the first North American grower to purchase one of these.

Deciding to buy a new machine for your greenhouse isn't something that any grower, large or small, takes lightly. Other than price, there are other factors to consider, like where you need it and if you have the labor to operate it. So that transplanter that you've been dreaming about may not be such a pie-in-the-sky idea after all.

What's driving the upward trend

When I asked Rob Lando of AgriNomix if they're noticing that growers are buying more equipment, he answered with an emphatic, "Yes!"

"We're on fire," he stated. "We've never seen it like this, but it's different this time. Growers' margins are tighter than they've ever been before and they have to look at things from an economic standpoint, not just, 'Yeah, the old one probably needs to be replaced.'"

The main reason many manufacturers are seeing an uptick in sales is obvious—the lack of labor. Something, regardless of the size of the operation, a lot of growers are dealing with.

“One grower told me, ‘I spend more time doing Human Resources than running my business. For every 10 people I hire, two may make it until the end of the week,’” said Steve Biles, GM for TTA USA. “So finding that labor that they need during the season is getting so much more difficult.”

For most larger growers, they've already been slowly adding new equipment to their greenhouses in every area from flat fillers to transplanters to conveyors in the shipping area. With the amount of volume and the number of employees they have, they almost have to automate, said Steve. But now he's noticing that the increase in sales is from small to mid-sized growers.

“They're already doing the planting by hand in most cases, so if you can't solely justify it on saving money, they will put in a small transplanter so they can transplant in two or three days a week and you can use fewer people,” said Steve. “Also, when they start shipping, it's back-filling those greenhouses where they make the money. If they can fill that empty space as soon as product is picked up to ship, they can turn their greenhouses quicker.”

It's these smaller businesses that have traditionally balked at investing in greenhouse equipment simply because they were way out of their price range. But now, almost every machinery supplier has, at the very least, a transplanter for any budget.

The PackPlanter S that TTA introduced last year at Cultivate was developed specifically because of requests from small growers. Steve said that TTA is known for their big transplanting machines that can transplant 1,500 flats an hour, but a smaller business needs something that can do more along the lines of 200 to 300 flats per hour. So TTA came out with a smaller-frame, lower-priced machine that has all the benefits of the big machine.

“We've been building and designing transplanters for over 20 years and they go through their phases of improvements, technology changes,” explained Steve. “We've had growers that had to settle for bigger machines because that's all that was available, but now with the smaller machine, we're getting a lot more interest.”

The Punch 'N Gro transplanter was one of the first of its type that was developed for the small grower in mind. It was, and still is, really easy to use and inexpensive compared to the larger transplanting equipment.

Dan McMahon, Hardgoods Business Manager for Ball Seed, has been involved with the Punch 'N Gro machine since the early 2000s and growers tell him all the time that they couldn't live without it.

“It's the perfect example of buying a transplanter for \$5,500, but that's potentially going to replace 12 people on a production line,” he explained. “Especially since the time to get the product grown and out the door is so limited and most growers are working with a limited staff.”

Laboring over labor

But, contrary to what some people think, most greenhouse automation doesn't directly replace a large number of workers—it's not like the thinking behind the ordering kiosks at McDonald's. In this instance, it's trying to find a solution to a workforce that's already missing, but also to make the staff you do have more efficient and productive.

Metrolina Greenhouses in North Carolina is one of the largest growers in the country and they're known for investing in the newest greenhouse technology. It's not because they want new toys to play with; Art VanWingerden explained that he and his brother, Thomas, do A LOT of research and testing before they decide to make the decision to bring in a new machine.

“First, we travel around to see what other kind of machines people are using,” said Art. “And it doesn't have to be in our industry—we'll look at other industries, too. And we look at what work processes we're doing that we don't like doing by hand or people complain about doing by hand. So whether it's spacing or sticking, we say, ‘Okay, is there a machine out there that will do that job?’”

If they're interested, they bring it into the greenhouse to test it to see how it runs, and if it will help their operation, they make it a permanent fixture.

Dan said that he's heard reports of new Punch 'N Gros being purposely sabotaged by greenhouse workers because they feared that the machine would replace them. But as Art will tell you, that's not usually the case when you add automation. Metrolina bought five ISO transplanters 16 months ago and he said, "We have yet to go down in our number of laborers this year per acre. We have just as many people working here today as we (did) a year ago. It is no different; we're just using those people for other tasks now."

Automation can also make workers' jobs better. No one wants to stand all day, transplanting Monday through Friday. Machines allow employees to operate new technology, and because it gets the job done faster, they can break up their days and weeks with a multitude of different tasks.

"We're now looking at automation in a very different way," said Rob. "Workers have more job choices today, so helping growers provide a better work environment, the first thing we have to do is look at the jobs that people, frankly, just don't want to do. So we are concentrating on product development that is not just about return on investment, but also, products or tools that can be brought to bear to make a more pleasant work experience."

When to invest

Whether or not to buy a new piece of greenhouse equipment is entirely dependent on the business and every case is different. But there are a few things to keep in mind if you're thinking about making a large investment for the first time.

- **First, where is your "pain-point"?** Take a step back and look at where your log jams are. Is it just with getting labor? Or is it in the shipping area or in production? Are you spending too much time transplanting or spacing plants? Is there a particular task that your staff hates doing? If you had a machine that could do it quicker, what else could you be doing more of and better? These are the questions you need to ask yourself. And all of the equipment manufacturers will ask this as well.
- **Do the math.** Once you know where your pain-point is, sit it down and figure out how much you would be saving—in time, money or both. Art gave a really good example: Figure each employee costs \$20 an hour (which includes taxes, benefits, etc.), eight hours a day, which equals \$160. If you need, say, four people to transplant, that's \$640. Times five days equals \$3,200. If you're transplanting for 12 weeks, that's a total of about \$38,000. For that amount, you could buy a really nice transplanter that one or two people can operate and you can use the other workers in the shipping area to get more product out the door.
- **Do the research.** Make a point to go to a couple of trade shows—especially the ones where you know there are more machinery companies—and window shop. Talk to the vendors. Also, if you can, travel to other growers who have more automation than you and see what they're doing.
- **Work with your vendor.** After you've decided on which machine you're going to buy, take the time to work closely with the manufacturer. They'll help you choose the right machine for the job at a price that will offer the best return on investment for your business. And some will even set you up with financing, a lender or a leasing agent.
- **Lastly, don't go into the process thinking you won't be able to afford anything.** Compared to 10 years ago, growers, big and small, have a lot more options when it comes to greenhouse equipment. Think of it this way: you owe it to your business and your staff to make sure the company continues to move forward and adding more automation can help you do that.

"Automation is for the long haul," said Rob." If you want to be in business for the long term, you'll incorporate more

automation." **GT**