

Love

in a

Pennsylvania Greenhouse

See how Peace Tree Farm transformed its old, small greenhouse into a brand new, state of the art facility.

By Meghan Boyer



The newly constructed Peace Tree Farm.

Even with the heat of the Pennsylvania summer sun bearing down on Peace Tree Farm, there's no place Lloyd Traven would rather be than in his greenhouse: "I love it. I love the way the greenhouse feels. Even last week when it was 95° out it felt cooler in the greenhouse than it did outside." The cause of all this contentment is his new greenhouse structure. Air sweeping out of the open vents in his Dual Atrium roof helps keep Lloyd's greenhouse comfortable for everyone inside. He enjoys a clear view of birds, oncoming storms and the rest of his surroundings through the greenhouse's polycarbonate walls. And, thanks to natural ventilation, it is blissfully quiet inside.

THE PROBLEM

Yet, Lloyd wasn't always so content. Two years ago he faced a looming business decision: either opt for expansion or make a five-year plan to get out of growing. His old greenhouse could no longer sufficiently sustain his business needs. The structure was too short and too small. He was limited as to the types of equipment he could add, and the limited space meant Lloyd had to keep a limited staff. Unlike his new greenhouse, the old one was unbearably hot during the summers, necessitat-

ing he shut down production during the warmest months. But the major reason a decision had to be made was because Lloyd was continually sold out of product. The old greenhouse just didn't have the capacity to step up production when the need arose, which meant having to continually tell his loyal customers to look elsewhere.

Lloyd and his wife, Candy, ultimately decided to stay in the business and create a new structure to suit their needs. With their decision, they embarked on a journey towards a new greenhouse that led them through brainstorming their needs, researching their options and making their choices.

THE PROCESS

Lloyd and Candy began exploring the options available to them. But before making any advances — talking to vendors, finding a company to oversee the project or breaking ground — the two knew they had to sit down and figure out exactly what they wanted from the new build. "We kind of went into it with the concept of we're going to do it the way we want to do it or we're not going to do it at all," said Lloyd. They started with a single, unwavering requirement: Lloyd knew he had to have total control over his greenhouse, which meant he needed an automated system

that would take care of everything, including irrigation. Other must-have components for the new house included ebb and flow benches for irrigation, glass instead of polycarbonate for the roof and natural ventilation. Many of his choices were in reaction to the conditions in his old greenhouse, because, as Lloyd asked, "Why build what you already have?" Additionally, Lloyd insisted that each roof work independently from the others to achieve maximum control over the space; there would be no gear boxes in his new build.

Once they decided which aspects were non-negotiable, Lloyd and Candy began shopping around for a company that would help them achieve their goals. Lloyd thought holistically about the project: "We looked at who could put the whole package together, at who could help us with layout and inside design." For Lloyd, a greenhouse is not merely the protective structure that houses his plants. Everything is important to him: from the booms, to the benches, to the boiler. He knew a collection of autonomous units working in his greenhouse would not suffice. Lloyd felt it was imperative that everyone — including himself, the vendors and the company representative — maintain involvement throughout the entire process.

In light of this, choosing a company whose representative was willing to visit the site regularly during construction and be deeply involved throughout the process was of utmost importance. Choosing vendors hinged not only on the quality of their work but also on their willingness to sit down and discuss the project with everyone involved. At the beginning of his search, Lloyd considered and received quotes from seven different companies that could oversee the project. He still deadpans that the choice came down to the last company and representative still standing after he put them through the wringer.

THE CHOICE

Jeff Warschauer, vice president of sales with Nexus Greenhouse Corporation, was Lloyd's selection. Warschauer remembers the lengthy bidding process well. "I think I made 25 or 30 sales calls at their kitchen table prior to getting the order." Because he lives only a few

hours away from Peace Tree Farm, Warschauer was able to use proximity to his advantage and make frequent visits to the site, before, during and after construction. Lloyd was pleased with Warschauer and Nexus' willingness to work with the

requirements for his new greenhouse, their ability to bring new ideas to the table and their persistence in pursuing the project. "When we described what we really wanted to do," explained Lloyd, "[Nexus] came up with a design of

a totally new greenhouse. This is the first Dual Atrium style greenhouse ever built."

As Warschauer points out, the Dual Atrium roof "is a little bit unique and different to the industry." It consists of two 21-foot ◆

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peaks, which create two large attic spaces. The roof opens 50 percent, which is 25 percent more than the single Atrium style. Now that the greenhouse is built and he has had time to monitor its performance, Lloyd finds that it maintains roughly the same temperatures as open-

roof greenhouses in his area. With half the moving parts (and therefore less cost) than the fully open-roof style, the Dual Atrium was a great innovation for Lloyd...and exactly what he needed. He has more control over the humidity, and he has the ability to open the roof in winter during snow cover. And even though the roof does not open 100 percent, the crops can still be hardened naturally. They're healthy, robust and free from striping.

THE ADVICE

To get what they really want for their pending new builds, other growers should pay less attention to the price of the greenhouse structure, advises Lloyd. "The greenhouse is critical because it houses all of the systems, but don't get caught up in the square foot cost of the greenhouse because it's the other stuff that's going to really add up. In this project here, the greenhouse structure itself is 25 percent of the total bill. That's it. If you're putting up a real highly controlled hot water heating system with zones, you're going to spend as much for your heating system, or almost as much, as you will for the greenhouse." While Lloyd wasn't surprised about the cost of the structure or its components, the incidentals such as ▶



Top: The Dual-Atrium design allows for as much ventilation as an open roof. Bottom: Growing plugs is much easier with a controlled climate.

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permits, inspectors and site plans really began to add up unexpectedly. His advice: "Take every bill you think you're going to incur and add 20 percent. Minimum."

Even if you're worried about a big bill, it is important to note that the cheapest option is not necessari-

ly the best option. Compromising on quality or durability to save money upfront can mean adding upkeep costs in the future. Lloyd reminds people to "buy durability. Cheaper is not necessarily better." He certainly didn't scrimp or compromise on Peace Tree Farm's con-



Spring bedding (top) and seasonal crops finish equally well in the new facility (bottom).

struction, despite the fact that it meant having workers on his land during a peak season. "We were in the middle of spring rush, and we were starting to build a greenhouse. But you know why? Because we could get the construction crew we wanted then. And if we'd waited until summer, we couldn't have gotten them. And we knew who we wanted to build the greenhouse."

As a manufacturer, Warschauer feels it's important for growers interested in investing in a new greenhouse to look at all their options thoroughly, much like Lloyd did. It is not enough simply to read about the different structures and equipment used in innovative greenhouses across the county or to talk amongst one's colleagues. Growers need to take a hands-on approach to their decision making. "The best thing to do is go out and do a road trip. Go with your two [favorite] greenhouse companies, let them take you out and show you

what they've got. I can't tell you how many projects we sell where, quite frankly, people don't even go out and look, and I think that's a mistake," councils Warschauer.

THE CONCLUSION

Lloyd embarked on building his new greenhouse more than two years ago when he and Candy made the decision to figure out where they were headed with Peace Tree Farms. Now, after careful planning and research, he not only has a new greenhouse that can meet the needs of his business but a quiet place to enjoy his profession. GPN

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