As you read this article, you’ll start to see a trend. The greenhouse companies are still building greenhouses, but some of these projects are for new growers who are turning finished produce and organic vegetables into a major business. The difference between the growers then and now is that the veggies are being grown under cover.

Jeff Warschauer, VP of Sales for Nexus, said it was only a matter of time before traditional ornamental greenhouse manufacturers got into the mix. With the increase in farmer’s markets, more people buying organic and the locally grown movement—especially in urban areas—it was an inevitable transition. “Farming” as we used to know it is no longer on large patches of land out in the country.

“The summer farmer’s markets, CSAs and such sparked the demand and continued to feed it, so now consumers expect locally grown fresh produce,” Jeff said. “And more and more of these projects are being built. The rooftops and brownfields are a great way to host a greenhouse to continue availability of fresh local produce year-round.”

Lynn Hackett, Director of Marketing for Nexus, provided a handful of new projects that the company has been constructing all over the country.

Mitchell Park Conservatory | Milwaukee County’s newest greenhouse project features Nexus Atrium structures at the Mitchell Park Conservatory, also known as “The Domes,” where 200,000 people visit each year. The new facility has a 65,000-sq. ft. complex featuring seven naturally ventilated greenhouses that have floors heated by radiant energy, cooling pads to regulate temperature, new benches to hold plants and provide drainage, dual curtain systems and a computerized system connected to real-time weather data. Behind this main architectural greenhouse is an acre of growing greenhouses.

“The big conservatory structure will be used to grow for the Domes and for public tours,” explained Al Sray, Midwest Regional Sales Manager for Nexus. “The other growing greenhouses will just be used to grow for the Domes and for other county properties. Both are fully functional growing ranges, but the conservatory-type structure is the only one that the public will be allowed to go into.”
Gotham 2—Whole Foods | This project has received a lot of press and not just from GrowerTalks. The New Yorker, the New York Observer, the Huffington Post and other major news outlets have all reported on the first-ever largest U.S. rooftop greenhouse on top of a Whole Foods store.

Gotham Greens, a Brooklyn-based rooftop greenhouse grower, was approached by Whole Foods for the project. The company has been growing high-quality hydroponic produce since 2011 at its first rooftop Nexus greenhouse farm in Greenpoint, Brooklyn. The new rooftop greenhouse will grow produce year-round for the Brooklyn market, as well as other Whole Foods locations throughout New York City.

“Gotham 2,” as Lynn referred to it, opened in February in Brooklyn. The 20,000-sq. ft. Nexus Atrium rooftop greenhouse is expected to grow more than 150 tons of fresh produce annually.

“If we follow national and even international opinion, we feel more and more consumers are wanting to know where food comes from and also how far it has to travel,” said Jeff. “Consumers are demanding local whenever possible. If you’re eating in Boston, New York City or Washington D.C., you will most likely see restaurants advertising locations of food, such as Berkshire-raised pork and local cheeses.”

Dickinson College | Dickinson College is a private residential liberal arts college in Carlisle, Pennsylvania, that’s known for being the first university in the United States when it was established right after the end of the American Revolution. This year, they constructed a custom-designed Nexus greenhouse—the Inge P. Stafford Greenhouse for Teaching and Research, named after a generous alumna—that includes a 34-ft. tall rear wall lean-to greenhouse and an all-glass glazing package. The project features multiple zone heating and controls for each custom growing zone because, not only is the facility a general-use greenhouse area, but it also has three independent research zones, a classroom-lab, a preparation potting area and a climate-controlled laboratory. They were one of only 15 schools to receive an A-minus in the Sustainable Environments Institute 2010 green report card, which is the highest grade possible.

Harnois Greenhouses | St. Thomas, Quebec
According to the Centers for Disease Control, Alabama has the third highest prevalence of obesity in the United States. Don Chamberlain, a former businessman who ran for U.S. Congress, wanted to change all of that.
Southern Fresh Produce | Enter Southern Fresh Produce, an organization chaired by Don and others, to provide opportunities for small farmers to be involved in helping communities in Alabama, Mississippi, Georgia, North Carolina and South Carolina have access to fresh local produce. Not only does it bring in much-needed healthy food to the states, but it provides job opportunities to many of the unemployed people—especially in Alabama’s Black Belt region, who are living below the poverty level. Don said that the average annual income is $18,000; the poverty threshold for a family of four, according to the U.S. Department of Health & Human Services, is $23,550 per year.

“During the last 50 years, we’ve become an extremely impoverished region,” explained Don. “At the end of the week, when they get their paycheck, they have to make a decision on what they’re going to pay for because they can’t pay for everything. Gasoline is chosen over medication or groceries. And that’s a sad situation to be in.”

Three years ago, Don approached Harnois about becoming one of the supplier partners for Southern Fresh Produce. At first, they were skeptical.

“He came to us and he said, ‘I want to plant 11,000 farms in the Black Belt counties in Alabama to produce organic vegetables,’” recalls Caroline Forest, VP of Communications & Marketing for Harnois. “We thought, ‘Okay, let’s see if he can get the first one up.’ We have a policy that every customer, whether we think the project is realistic or not, we give them all of the information because experience has shown us that you never know. What started as a dream can turn into reality. And this is one of those cases.”

Don’s dream is being realized with the first farm—Havana Junction Farms in Moundville, Alabama—that opened in the fall of 2013. Based on Alabama’s climate and the growers’ needs, Harnois went with their TunnelPro high tunnels that are affordable, but also allow for higher yields, excellent quality and an extended shelf life at retail. At press time, Havana Junction was in production, planning to harvest their first crop in the next few months. Harnois is also working on four other Alabama farms for Southern Fresh Produce that are set to be completed this spring.

Southern Fresh Produce’s business model allows each farm to be individually owned and have about 33,600 sq. ft. of greenhouse. Some farms may have additional space for outdoor field production, but the goal is to have all of the farms maintain the same amount of space. Although the farms themselves will be small, because they’re all under the Southern Fresh Produce umbrella, they’ll have a better chance of selling their products to the local stores—something they wouldn’t be able to do on their own because of volume.

“It’s very difficult for small individual farms to secure distribution channels with the big boxes, like Whole Foods,” explained Caroline. “They wouldn’t have been able to supply them and it would have been, at best, inconsistent and very small. The idea is to get all of these farms together, give them the support and train them.”

Many of the farmers don’t have agricultural experience or are just starting out, so Southern Fresh Produce will
help them with everything from growing techniques to providing tax and business advice, and how to get organic certification.

Don’s goal is to build 11,000 farms over a span of 10 years that will create 65,000 jobs. The hope is, by then, people’s eating habits will improve, along with the unemployment rate.

“We’ll see what happens,” said Don. “I predict that somewhere down the line we’re going to be attractive to folks like Del Monte, Gerber and Campbell’s who can put processing plants down here. Somebody’s gotta raise those vegetables for them.”

**Rough Bros., Inc. | Cincinnati, Ohio**

Rough Bros. has installed more than 50 acres of commercial ornamental and bedding plant greenhouses during the past year, but they’ve been extremely busy with a variety of different projects. Rough has been working on building rooftop greenhouses, facilities for urban vegetable production and even constructing greenhouse façades to make grocery stores communicate a more local feel. Tom Vezdos, VP of Rough’s Commercial Division, said that this myriad of construction jobs is now the new normal.

“When a consumer sees a greenhouse, they immediately begin thinking ‘locally grown,’ so this topic is definitely on the top of people’s minds right now,” Tom said. “In the past 20 years, greenhouses were predominately for ornamental and bedding plant growers. Today, production greenhouses and garden centers are showing up in the urban and suburban markets to capitalize on the ‘local’ mentality. The consumer perceives the greenhouse as being a part of the community, with a classic Mom-and-Pop look and feel.”

**Grand Rapids Urban Market |** One company Rough has worked with recently actually practices what they preach. Grand Rapids Urban Market’s mantra is “We love local” and that’s what the Grand Rapids, Michigan, grocery store thrives on. What they term as a “mixed-use facility,” brings together production, distribution, marketing and education about local produce. They have an indoor facility that features a 24-vendor market hall, along with an outdoor farmer’s market. Rough Bros. built the Market’s 10,000 sq. ft. rooftop greenhouse in 2013, which produces fresh greens and vegetables year-round and also serves as an educational “classroom” for the many workshops the Market holds every month. The Market is working to be the first LEED-certified food retailer in the U.S. with the greenhouse, green roof, living walls, geothermal wells, rain gardens and other sustainable features.

**Midwest Urban Grower |** Another urban project also located in the Midwest (Tom didn’t want to divulge the name) was about 98% complete at press time. This company plans on growing vegetables in a 30,000 sq. ft. greenhouse to supply their area with fresh produce.

“They’re familiar with the produce business, but they’re new to growing,” explained Tom. “They asked us for a turnkey process and then we consulted with them to develop a comprehensive plan.” Tom said this includes all parts of the greenhouse—not just the structure—but the irrigation and heating systems, benching, shade...
controls and other equipment. The entire package was specifically designed to accommodate growing finished produce, which is a Rough Bros. specialty.

“We often have to design all the systems for a vegetable range to develop the best structure for their application,” said Tom.

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**Deforche Construct NV | Izegem, Belgium, and Mobile, Alabama**

Suburban Lawn and Garden | Bill Stueck started his business as a lawn-mowing service in the 1950s, growing into what is now Suburban Lawn and Garden that operates retail and wholesale nurseries, and has garden center stores at three locations in the Kansas City area. They also have two other sites that are strictly for production—one for annuals, perennials, shrubs and groundcovers, and the other for field-grown trees, which is a big part of their business.

Deforche helped Bill and his son Matt construct their second retail location in 2001 and are planning on breaking ground in March for the new location, which was previously owned by a wholesale nursery. Matt said they bought the property and are developing it for future growth as a re-wholesale and retail business.

Chuck Sierke, national sales manager for Deforche, said that the new facility will be very similar to the second location—approximately 45,000 sq. ft. with Echo hanging basket systems and ebb-and-flood benches especially designed for retail.

“The open-roof greenhouse is very good for our area,” said Matt. “We have an average of 15-mph winds and the Deforche Cabrio greenhouse has the most sound open-roof design that allows the roof to still have nice rigidity and structure when opening and closing. Plus, it gets very hot here. We need the ventilation for the comfort of our customers.”

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**Stuppy Greenhouse | Kansas City, Missouri**

Stuppy’s Jennifer Findley said the Midwest company has also been feverishly erecting new facilities locally and around the country. She was kind enough to share a few of them with us.

The John H. Nelson Center | The John H. Nelson Center at the University of Kansas is the site of a new 3,456-sq. ft. Stuppy CS3 greenhouse and head house. Completed in the fall of 2013, this facility will provide the University of Kansas with a place to carry out algae research with the option to branch out in the future, said Jennifer. The facility is divided into three separate compartments, two separate growing environments and an insulated head house.

The facility was designed to provide the researcher with different options for crop production and research. With 16-ft. sidewalls and two separate growing environments, each with a different ventilation option, this greenhouse provides the end user the ability to grow a large variety of crops. Both environments and the head
house are equipped with mechanical heating. When it comes to cooling, one environment utilizes natural ventilation through sidewall vents and a roof vent, while the other is equipped with an evaporative cooling system, a roof vent and an interior shade system.

The structure is built out of galvanized steel with polycarbonate covering on the greenhouses and 29-gauge steel covering on the head house. With 12-ft. roll-up doors entering and exiting each compartment, you can bring large equipment in and out of the greenhouses and the head house with ease, making moving crops or other materials really simple.

**Virginia Grower** | One grower in Virginia is unique because they’re working on culturing plant tissue for high-value ornamentals and bio-energy plants, Jennifer explained. (Stuppy requested the company not be named.) They started a new company and worked with Stuppy on a 2-bay, 22-ft. wide Rainbow Super model. This structure was picked for its 12-ft.-tall sidewalls, cost effectiveness, strength and future expansion opportunities. When Stuppy partnered with them, they already had a design idea in mind. After a few tweaks were made, construction began. It features bench top heating, insect screen and a full concrete slab for a cleaner environment.

**Woodburn Nursery & Azaleas** | Chad Barrow, the western states sales representative for Stuppy, began working with Woodburn Nursery & Azaleas in Woodburn, Oregon, in the late ’70s. Jennifer said the original houses were designed and constructed by the company around 35 years ago. Their newest project was completed in 2012 and the contrast in the houses really shows. These updates were designed in collaboration with the Fesslers, Woodburn’s owners, and include a new roof shape with roof vents—and to be more energy conscience—the exhaust fan shutters were removed. The covering was replaced with 8-mm panels and the panels on the roof are pigmented to remove the necessity for shade cloth.

“We’ve had a great partnership over the last 30-plus years and I’ve enjoyed working with them on their innovative designs,” said Chad. **GT**