PLOUGH to PANTRY ______ PLOUGH to PANTRY



BrightFarms in Etowah



By ROBERT TURNER

With the opening of several large greenhouses over the past few years, Western North Carolina has become a hub for controlled environment agriculture (CEA). The goal of CEA is year-round growing on a large scale with fewer inputs and reduced carbon emissions compared to traditional farms.

For many in the field, CEA holds the promise of food production closer to population centers in northern climates so that people living there are less dependent on food from foreign nations or faraway places. That improves food security and food sovereignty because it reduces dependence on long-distance supply chains.

And because of shorter transportation distances, CEA greatly reduces food miles and associated CO2 emissions, while it increases shelf life in the store and at home, potentially reducing food waste. When food production happens closer to where it is consumed, fresh vegetables can make it to a store within 24 hours after harvest, a week faster than produce from California or Central and South America, where most of our vegetables come from.

With the recent opening and expansion of these techdriven businesses, where robotics, automation, genetics

and science-based agronomics play an important role, WNC hopes to attract young, science- and technology-minded people to work at these facilities.

WNC is home to the largest agricultural greenhouse in the Southeast, opened in 2021 by BrightFarms in Etowah, and encompassing more than 280,000 square feet under glass. The farm can supply more than two million pounds of sustainably grown leafy greens per year to supermarkets across the Carolinas and beyond.

BrightFarms uses no pesticides, herbicides or fungicides, and because greens are grown in a tightly controlled environment using a hydroponic system (no dirt), there are no chlorine baths, sprays or gas flushes necessary to clean the product after harvesting, as is often the case in field greens.

These large growing facilities are expensive to build. The BrightFarms facility had a price tag of around \$21 million. That equates to about \$75 per square foot for the facility.

Several other large greenhouse growers are also located just south of Asheville, including Ohalo Genetics, Lakeside Growers, Mountain View Greenhouse and Van Wingerden International. Also located in Mills River is a major builder of large greenhouse buildings nationally by the name of Van Wingerden Greenhouse Company. WNC is now a hub in the growing field of controlled environment agriculture.

While BrightFarms focuses on salad greens, Lakeside, in Mills River, produces tomatoes and



Ohalo in Mills River

cucumbers. The 15-acre facility has plans to expand to 45 acres, but is already capable of producing 700,000 pounds of tomatoes per acre in a 40-week growing cycle. Produce from the greenhouse is mostly distributed to the Carolinas, but it can also be found in grocery stores from New York to Miami.

The facility required an investment of \$30 million to install specially designed lighting and other features to grow the tomatoes.

In May of this year, Ohalo opened a new 65,000-square-feet, \$9 million biotech greenhouse



operation in Mills River, which is developing genetically engineered potatoes and corn and a variety of other plants.

Right next door is the massive Van Wingerden International greenhouse facility that is the grower and supplier of Nature's Heritage brand plants and flowers, and grows more than 150

varieties of plants, including bedding plants, foliage, hanging baskets, African violets, mums, poinsettias, spring bulb crops, perennials and other flowering indoor plants. It also operates large, outdoor, open-field production of florals.

Also just down Haywood Road in Mills River is the Van Wingerden Greenhouse Company, an industry leader in greenhouse buildings, established in 1972. The company has covered nearly 650 acres under glass buildings across the US. In addition to the greenhouse building structure itself, the company offers consulting, custom design and installation of the internal growing systems, the guts of the greenhouse. That includes the watering



and shading systems, rolling benches or tables, automation systems and heating systems.

WNC is now taking a leading position in this country in controlled environment agriculture and new ag tech automation, building our regional food security and food sovereignty, and reducing food miles and dependence on food from faraway places.

Robert Turner is a farmer and author of Lewis Mumford and the Food Fighters: A Food Revolution in America. Learn more at

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