

COLUMNS

Campbell Vaughn: Vertical farming is a growing trend for growing crops up instead of out

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It has been a thought-provoking progression to watch over the time I have been in the UGA Extension service. I was talking to a nice fellow the other day, and he was discussing how interesting it was that home vegetable gardens are starting to circle back.

Throughout history, most people had to rely on growing something to eat if they want to eat. The last big event that forced so many to grow their own food was WWII, when rationing was common and to eat outside of what had limited availability, you had to have a garden.

We don't seem to have too much issue with finding food if we can drive to the store and have the funds to purchase what has become almost unaffordable. But transportation and food prices are major factors. I know it is for my family.

The term "urban agriculture" has been steadily gaining momentum due to various factors such as lots of folks living in the city, concerns about food security, sustainability, and a growing interest in locally sourced produce. Some of the trends we are seeing driving this new revolution include a lot of what you might have seen in traditional gardens over time, but with a twist.

With limited space in urban areas, like apartment living or small lot houses, vertical farming has emerged as a popular trend. The process involves growing crops up instead of out. Liked stacked layers. The process is often in controlled indoor environments using techniques like hydroponics with artificial lights. This method maximizes space utilization and allows for year-round cultivation.

Along the lines of vertical gardens comes another popular area for growing produce in a controlled environment. Aquaponics are soil-less cultivation techniques that use water and nutrient solutions to grow plants. Aquaponics combines plant cultivation with fish farming,

creating a symbiotic relationship where fish waste provides nutrients for plants, and plants help filter the water for the fish. You can grow fish to eat at the same time as you grow vegetables. It is not easy, but it is a cool system.

Hydroponics is a simpler (simple does not mean easy) way to grow a crop by planting crops in some type of medium that essentially floats on a pool of water or is occasionally flooded with water. The water is tested regularly to keep optimum levels of pH and nutrients. There are amazing things happening in hydroponics because you can grow crops year around in controlled environments. This would let you grow, for example, locally sourced tomatoes in upstate New York throughout the year.

The demand for nutrient-dense microgreens and specialty crops like edible flowers and exotic herbs is increasing in urban markets. These crops can be grown in small spaces and have a high market value, making them attractive options for urban farmers. Farmers trying to make a living can't always rely on squash to make a living.

Beekeeping is cool. There is a big rise in beekeeping in urban areas as people become more aware of the importance of pollinators for food production and biodiversity. Urban beekeeping not only produces honey but also supports urban agriculture by enhancing pollination. Honeybees are considered livestock and there are so many things we eat that would not be available if it wasn't for honeybees. Almonds, apples and watermelons would be a good example of those food that need those honeybees for pollination.

Campbell Vaughn: Saucer magnolias are starting to bloom and they are showstoppers

I love the trend that cities are incorporating urban agriculture into their planning policies and initiatives. Designing neighborhoods and common space to promote open area, designated planned community gardens, natural buffers all with sustainable practices.

Urban farmers are also increasingly adopting smart farming technologies such as sensors, automation, and data analytics to monitor and optimize crop growth conditions. These technologies help conserve resources, improve yields, and reduce environmental impact.

Overall, urban agriculture continues to evolve and expand, driven by a combination of technological advancements, environmental concerns, and societal shifts towards local and sustainable food systems. These shifts hopefully will keep people eating healthier, saving money on groceries and enjoy the ability to produce a lot from little. And if you have too much, share with a neighbor or another in need. That type of sharing is a gratifying feeling.

