



Modular greenhouses

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SMART MODULAR GREENHOUSES TURN URBAN ROOFTOPS INTO GARDENS

 FOOD & DRINK

Tiny modular greenhouses bring commercial agricultural technology to urban farms

The world's population is expected to reach 9 billion by 2050 and farms will need to produce 70 percent more food than they do today in order to feed that number. It is no surprise then, that numerous companies are developing alternatives to the traditional rural farming infrastructure — creating small “farms” which can flourish in urban spaces.

We have already seen [SEALEAF](#) — which enables coastal cities to create local farms on their seafronts. Elsewhere, the Japanese [Agri-Cube](#) fits into a standard parking space and can produce 10,000 vegetables a year. Now, California based [Cityblooms](#) has created a modular lightweight greenhouse especially designed for urban rooftops.

The smart mini-farms weigh only 15-17 pounds per square foot — minimizing potential problems with roof support — and each unit are designed to fit around any other infrastructure already in place on the roof. Nick Halmos, CEO of Cityblooms says it's this flexibility which gives the design its advantage: “The modularity gives us the ability to scale very easily. So we can size a farming installation appropriately to the demands and consumption patterns and profiles of the community that the farm is built to serve.”

Would-be urban farmers can purchase any combination of microfarms, connect the hydroponic units to the cloud and track the growth of their crops remotely. They can control irrigation, humidity and plant nutrition allowing for more efficient food growth than the typical community garden. Since Cityblooms' microfarms have a variety of environmental control options, users can grow effectively in a range of climates. They use a closed-loop hydroponic technology which improves water use efficiency and protects the produce from pollution and unsafe levels of lead.

Cityblooms are bringing commercial agricultural technology to urban farming and in doing so could help reduce food waste and food miles. Are there other agricultural practices that could be adapted to urban spaces?

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