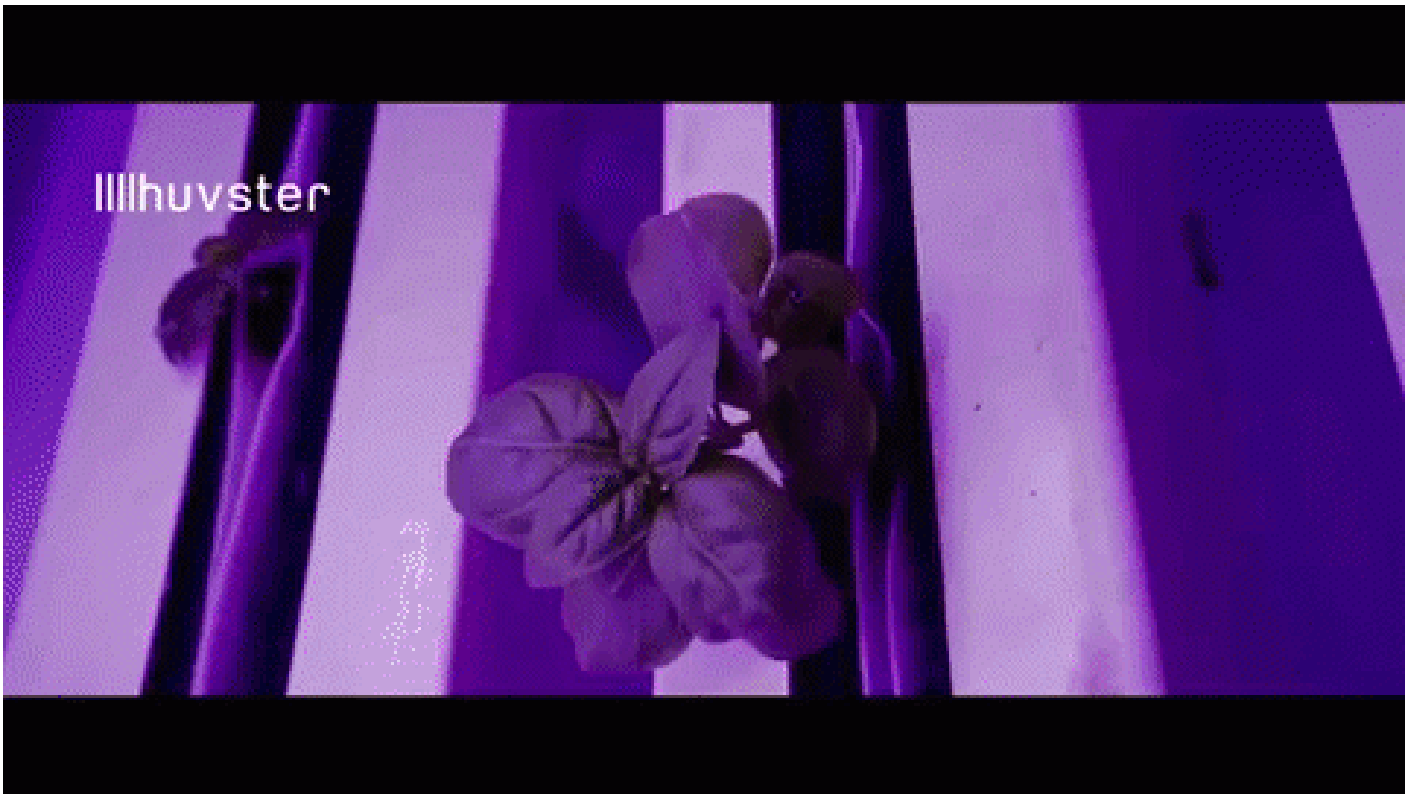
The Mexican startup that’s innovating in agriculture

This **Mexican startup** offers the opportunity to **plant vegetables** not in a field, but in a **healthy enclosed space in the city**, as well as **harvesting up to 100 times more** than normal.

Juan Succar and Jorge Lizardi, graduates of the **León campus of Tec de Monterrey,** created the company **Verde Compacto** **(Compact Green),** which follows the new **global trend** of **vertical urban agriculture.**

This type of **agriculture is ideal** for **supermarkets, restaurants, hotels,** and real estate developments.

Verde Compacto gained recognition by winning third place in the **Heineken Green Challenge** at **INCmty**. According to the Spanish edition of **Entrepreneur**, it’s one of the **ventures to follow in 2020**.



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Video of Verde Compacto containers for urban agriculture. Courtesy of Verde Compacto

MEXICAN TECHNOLOGY FOR A GLOBAL TREND

The **trend of urban agriculture** (in cities) is **growing worldwide and** already accounts for **15 percent** of all agriculture**, according to UN data.**

The **FAO itself** (the UN Food and Agriculture Organization) **urges this alternative**, although **there are still not many options in Mexico.**

Verde Compacto maintain that they are **pioneers in Latin America.** Unlike other **similar foreign companies**, they are **the first to use exclusively Mexican technology.**

*"This issue is very **important for Mexico**. It's not just a whim. It's about being part of a **global trend that's necessary for the planet**, "* says Jorge.

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PLANTING IN ENCLOSED SPACES

The trend of **urban agriculture** goes hand in hand with **vertical agriculture,** which maximizes available space **by planting in enclosed spaces at different heights.**

Verde Compacto launched an **intelligent vegetable growing** system called **Huvster** for this, in a recycled trailer **container**.

They say **that the system has the capacity to grow up to 200 times more vegetables per square meter,** besides needing much **less water**.


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FULLY AUTOMATED

The container provides a **circulating water system** and uses **LED lights** in the germinating zone, **simulating the conditions** needed for the seeds to grow.

Plants are placed in **vertical towers** where **they receive** drip **irrigation** and **grow until they are harvested.**

*“There are **sensors** that measure **carbon dioxide**, **humidity and temperature** levels,”* says Juan.

In addition, the **blue and red light** inside the Huvster **simulates sunlight**, allowing the plants to photosynthesize.

FEATURES

According to its founders, **this system also has these other advantages:**

- ***An intelligent system** for **measuring and controlling temperature, humidity, irrigation** and other aspects of vegetable cultivation by using **hydroponics** (agriculture without soil).*
- ***Savings of 90 percent for water and 80 percent for fertilizers compared to traditional method.***
- ***It measures** and regulates plant **nutrition levels**, so that they grow at the same rate.*
- ***It reduces risks of pests or blight.***
- *It can produce, for example, **730 lettuces per month on average,** or **20 kilos** of **oregano, coriander and other herbs monthly,** and about **30 to 35 kilos** of **vegetables**.*


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“This system could be installed in places such as shopping centers, restaurants, and hotels,” says Juan.

If installed near consumers, it may also **impact** agrobusiness in several ways, such as by **avoiding distribution costs**.

Furthermore, vegetables can be **harvested at any time of the year**.

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FROM FERTILIZERS TO AGRICULTURAL TECHNOLOGY

Juan is a **mechatronics engineer** and Jorge is an **industrial engineer.** In addition to being cousins, they've long shared an interest in proposing solutions in the field of agriculture.

Their first company sold **organic fertilizers** based on **earthworm humus** which led to an **interest in further** agricultural innovations.

The project was **incubated** at the **Cien Technology Park,** a center specializing in project development **on the Tec's León Campus**.

*"We also **approached the Tec,** who helped us by **giving us the tools to start up** through their **networking** connections,"* Jorge recalled.

FOOD FOR ALL

Jorge oversees operations and Juan is executive director, but there are **already 12 people on the team full time.**

*"There are other companies that have **imported technologies from abroad**, but we're **the first in Mexico**. We're **cheaper providers and employ Mexican talent**,"* said Jorge.

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Although pursuing this dream has not been easy, these young men have imagined a better future for the planet.

*We hope to achieve food security for the planet through different practices and ***the assistance of technology*** *, says Jorge.

Their next step is **to take part in different competitions,** continue developing products, and consolidating their position to enter **markets in Latin America, the United States, and Asia.**

THEY CAUSED A STIR AT INCmty

Verde Compacto became one of the leading startups at **INCmty,** the **Tec de Monterrey entrepreneurship festival**.

Their **venture** was took part in the **Heineken Green Challenge**, an initiative that recognizes companies **solving problems through innovation** in Mexico.

Verde Compacto won **third place** in the **2019** contest.

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