

Thinking big! Diabetic sweetener to go into large-scale production



*“My **dream** is that one day **international brands** will announce that they are sweetened with **Xilinat** on their labels,”* said **Javier Larragoiti**.

The founder of **Xilinat**, a **sweetener** made from **corn waste**, has won entrepreneurship competitions both in Mexico and abroad, and now **looks to be produced on a large scale** so it can be sold widely.

Larragoiti, together with his partners **Lorena Pedraza** and **Isabella Fernández**, will work at [Tec de Monterrey’s FEMSA Biotechnology Center](#) in order to achieve this objective.

At the center, they will work on creating a production line that will massively expand the manufacture of their product.

*“This **step** is **important** so we can demonstrate that it is **feasible**. If everything goes well, we will be **80% of the way** to making it work **massively** on a **commercial level**,”* he commented.



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Xilinat is a sweetener whose only ingredient is **xylitol**, which is obtained from **corn on the cob**, and which can be consumed by **diabetics** due to its **low glycemic level**.

It also **prevents cavities** and contains 40% fewer calories and 75% fewer carbohydrates.

Javier created Xilinat when his **father** was diagnosed with **diabetes** and refused to consume the sweeteners that were already available on the market.

His project won **first place** in 2018 at **INC Accelerator** and **first place** in the **Heineken Green Challenge 2020**. Both challenges took place at the **INCmty** entrepreneurship festival, organized by [Tec de Monterrey](#).

In 2019, he won the **international first place** at “**The Venture**” competition, an entrepreneurship competition held in **Amsterdam, in the Netherlands**.

His most recent achievement, in **2020**, was **winning the Heineken Green Challenge**, another of the **INCmty** challenges.



width="900" loading="lazy"> **It all started with helping his father**

*“My **dad** was **diagnosed** with **diabetes**. We always hear that it is one of **the major causes of death** in **Mexico**. But only when you **experience** it do you **understand** it,”* explained Javier.

The **first idea** he had to be able to help his father was to create a **pill** that would make things taste sweet as well as **avoid sugar consumption**, however it wasn't a viable project.

*“We brought him other **sweeteners** like **Stevia** or **Splenda**, but he didn't use them because of their **flavor**,”* Javier recalled.



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However, another **idea** would come to him from the mouth of one of his **sister's dental patients**.

*"My sister was studying the **use of xylitol in children**,"* said Javier, who explained that this substance was used in the fight **against cavities** and **tasted sweet**.

*"She gave them **xylitol**, instead of **fluoride**, and the children took it happily and even asked for more. My sister brought some **samples** from the United States, and it **tasted like sugar**,"* he said.

One of the reasons that **xylitol** was not used as a **sweetener** is that the **process** of obtaining it is **expensive** and **polluting**, as it comes from **birch wood**.



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Discovering a mine of sweetness in corn

Javier decided to invite **Lorena Pedraza**, who was his chemistry **teacher** at the **Ibero-American University**, to help create a **better process** for obtaining **xylitol**.

*“Lorena had developed a process to make **bioethanol** using **waste products**. So, I spoke with her, and we were able to adapt the **process** for **Xilinat**,”* Javier explained.

Unlike the process which uses wood, the **new process** uses **corn waste**, which is **bought** from **smallholders**, helping to improve their **financial situation**.

*“Right now, we are working with **52 smallholders**. Some have used the **money** they earn to **improve their living conditions**.”*

*“One **family** bought a **refrigerator** for the first time, another fixed their plumbing so as to be able to have **hot water**, and another family will be able to pay for their **daughter to go to school**,”* Javier said.



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In addition to helping with the financial situation in these low-income families, as the **cobs are not burned**, the release of **tons of carbon dioxide** into the atmosphere is completely **avoided**.

*“Unlike other **sweeteners**, we are the only one that has the **same taste** as **sugar**.”*

*“In addition, Xilinat’s **glycemic index count** is **7** while **sugar’s** is **64**; **this means that insulin is not needed to metabolize it**,” said Javier.*

The road to success

As a result of winning **first place** in the **INC Accelerator** in **2018**, Xilinat received **\$1 million pesos** in **items** such as **office rental** and **branding** for the product.

*“This is how we **laid the foundations** for **commercialization**. Thanks to this, we have a presence on **digital platforms** such as **Amazon** and **Mercado Libre**, to name but a few,” said Larragoiti.*



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In **2019**, Xilinat represented Mexico in [The Venture](#) competition organized by the Chivas Regal company, in which it won first place, \$300,000 and the title of “**Best socially-conscious company in the world**”.

*“It was **stressful**. I had to give my business **presentation in front of 2,000 people**. Before going out there, I drank a lot of coffee.*

*“I went on stage, gave the pitch, and the next thing I remember is **hearing** when they announced **our name as the winner**,” Larragoiti recalled, laughing.*



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In **2020**, he won **first place** in the **Heineken Green Challenge**, part of the **INCmty**, in which the focus was on the **circular economy**, i.e. using **waste** as the raw material for the manufacture of new products.

*"I really like challenges, because you have the **opportunity** to learn **about other projects**. At the end, from more than **a thousand projects**, there were **only 70** selected.*

Xilinat won **\$500,000 pesos** as well as an **incubation** process at [Tecnológico de Monterrey](#).



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Xilinat's present and future

Before the **pandemic** started, Javier and his company were already working on **industrial-level production** at the **Tec**.

However, after the closure of the Monterrey campus, as a result of **COVID-19** measures, the process was **delayed** for a few **months**, but it is the **next step** for **Xilinat**.

*"I feel **relieved**, and very **excited** because we will use the **pilot plant** at the **Tec's Biotechnology building**,"* he added.

<https://twitter.com/chivasregal/status/1126537311444000769>

Currently, his **product** is **available** on digital platforms and via his [website](#) for people who, like his father, already consume it.

*"My father is very **sentimental**. He is **proud** and **happy** to have been the **inspiration** for a **project** that is growing "*, said Javier.

All this time, he has kept in mind his next **goal**: for **international brands** to use Xilinat for their products.

*"I hope it will be an **international company** that can proudly say that its products are **sweetened with Xilinat**,"* concludes Javier.

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