

Waffle Forest Non-profit Introduces 'Smart Tree' Technology to Reduce Carbon Emissions in Phoenix

South Phoenix native plans first-ever 'tech forest' using reclaimed land, trees, and direct-air-capture technology to produce cleaner air in metro Phoenix area

PHOENIX, ARIZONA, UNITED STATES, April 25, 2022 /EINPresswire.com/ -- Merging the newest technology with nature's own oxygen generators to tackle the problem of air pollution is the goal of [Waffle Forest](#), a new non-profit that is working to create the first-ever "tech forest" on waste land in the Phoenix area.

"We want to plant [smart trees](#) on the site of a former landfill and use exclusive new technology to measure the amount of carbon they remove from the air," said Waffle Forest founder Ernest Lerma. "Once the forest is planted, we'll be installing state-of-the-art direct-air-capture infrastructure nearby to further reduce carbon emissions and improve air-quality in a green, sustainable, cost-efficient way."

Waffle Forest gets its name from the 15-by-15-foot-square footprints of each "smart tree" installation, filling former waste land with rows upon rows of trees in a waffle pattern. Each tree is fitted with exclusive high-tech "TreeTalker" (TT) equipment.



Artist conception of an individual "waffle" with smart tree technology



WaffleForest.org

"A TreeTalker is a small device mounted to each tree which measures its growth and general health, and relays the information to a nearby data server every hour," Lerma explained.

"TreeTalkers are able to reveal a tree's absorption of carbon dioxide, track its growth and the amount of water necessary to keep the tree healthy, and alert us if a tree is under attack from insects or fungi."

The initial phase of the project will build 100 waffles on the site of a former Phoenix landfill, fully equipped with TT technology to conduct testing using the data gathered by each waffle. Lerma is working with government agencies to plant Waffle Forests on unused or waste land sites in the Phoenix metropolitan area this year; his goal is to expand across Arizona and the United States.



Artist conception of "Waffle Forest" with smart-tree technology planned in Phoenix, Arizona

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Ernest Lerma

"I was born and raised in a poor Hispanic neighborhood in South Phoenix," he said. "I've been fortunate to have achieved business success, and I want to do something to improve my community and other marginalized communities across the country," he said. "In December of 2020, I was sitting on South Mountain looking at the layer of pollution over the city, and I had the idea to bring new life to land ravaged by landfills. That's how Waffle Forest came to be."

In addition to government and grant funding, the non-profit plans to create sponsorship opportunities for businesses, families, and individuals.

"The primary goal of Waffle Forest is to clean the environment while creating a beautiful, lush landscape in a previously forgotten and mismanaged area. We're not planting seedlings, but grown trees that are 10- to 20-feet tall, so each waffle will be like a pocket park, with a bench where people can relax and enjoy the greenery," Lerma explained.

"Individuals, families, and corporations will be able to sponsor waffle sections to help with Waffle Forest upkeep. Donors can name and dedicate trees, potentially transforming gift-giving and memorial services," he said. "A QR code posted at each waffle can communicate personalized information from donors, from grandma's recipes to a family tree. We want to give residents and

their families the opportunity to create and share memories while contributing to positive change in today's environmental crisis."

For more information or to learn more about sponsorship opportunities, visit WaffleForest.org or email Ernest@WaffleForest.org. Waffle Forest is a 501(c)3 non-profit corporation based in Phoenix, Ariz.

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