

Nutrition center gets bounty of hydroponic lettuce

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While it sounds like the kind of menu item that you might normally find at a high-end restaurant specializing in locally-sourced ingredients, a whole crop of hydroponically grown lettuce was recently donated to the Uvalde County Nutrition Center. And, according to the center, they are more than pleased to have it.

"It just looks so nutritious and pretty," said center director Enedelia Mendoza. "We've been testing it in salads to see how people like it, and it's been very popular. They say they like it more than just the heads of lettuce from the store."

In all, the nutrition center received eight varieties of lettuce that were hydroponically grown at the Texas A&M AgriLife Center under the supervision of Daniel Leskovar, center director and professor of vegetable physiology.

"It was part of the grant that we would give the center any excess lettuce we had after our initial testing was over," Leskovar said, noting that AgriLife teamed up with Uvalde County Underground Water Conserva-

tion District to secure a specialty crop block grant from Texas Department of Agriculture. "The water district is the primary partner organization with us; we also work with them in terms of reporting our results."

Hydroponic growing involves suspending plants above a bed of water and allowing the roots to float freely while absorbing nutrients that are systematically added to the circulating water supply. In this case, Leskovar said 13 different varieties were first grown as seedlings for 15 to 25 days and then transported to the water beds for the rest of the growing period, which is between 50 to 60 days. During this time the plants were evaluated for a number of different metrics, like leaf growth and smoothness, sugar content and whether or not they express symptoms of calcium deficiency, a physiological disorder also called "tip burn."

"You can see it when there is scorched, brown tissue on the tip of a new leaf," Leskovar said. "This problem is something that hydroponic growers in Texas are very interested in because a lot of varieties get tip burn."



Uvalde County Judge Bill Mitchell (left to right) Texas A&M AgriLife Center director Daniel Leskovar and Uvalde County Underground Water Conservation District general manager Vic Hilderbran display several varieties of lettuce. The produce was donated to the Uvalde County Nutrition Center on Tuesday.

By tweaking the amount of calcium and nitrogen that is circulating in the water, Leskovar believes that issues like tip burn can be avoided. Another benefit of growing hydroponically, he said, is a tremendous reduction in

the amount of water that is normally used when growing in soil.

"Using this method we only use about 10 percent of the water that is normally used, so you're looking at a savings of about 85 to 90 percent,"

he said. "It's really exciting to have sustainable production of leafy greens with less water."

And though Leskovar said this is AgriLife's first time to donate produce to the nutrition center, he hopes to continue doing

so in order to, ultimately, grow a better lettuce.

"The plan is to provide produce for people in need while also getting feedback on things like taste and color," he said. "So we'd definitely like to continue this in the future."



TEXAS A&M AGRILIFE

Several varieties of hydroponically grown lettuce were given to Uvalde County Nutrition Center so that taste tests and feedback could be provided to growers at Texas A&M AgriLife Center.