

## Tree Planter Modified To Plant Asparagus

Stewart Holliday has planted thousands of asparagus crowns with his modified tree planter. The 2-seat rig prepares the trench and makes it easy to drop the crowns in. It also buries permanent drip tube irrigation beneath the crowns.

"I planted 6,000 crowns in fifteen 500-ft. rows 3 years ago, 13,000 crowns 2 years ago and 16,000 crowns last summer," says Holliday.

Holliday lives most of the year in Arizona, but also owns a small farm near La Crosse, Wis. He got the idea for growing asparagus when he saw guys jumping the fence to pick asparagus from an old patch.

"Instead of calling the cops on them, I decided I could make some money," recalls Holliday. "With irrigation, the ones I planted could last 25 years or more."

In order to plant asparagus in large numbers, Holliday looked at planter options and settled on a 1-row tree planter. It had

boxes for the crowns and 2 seats for people setting crowns in the trench.

He credits the drip tube and modifications made to the planter for his success. The reel of tubing rides above the planter and feeds down a pvc pipe between the 2 seats. With enough horsepower pulling it, the planter can dig a trench 12 in. deep. Holliday goes deep enough to lay the tube under a couple of inches of dirt and still set the crown 8 in. deep.

"I cut 2 in. away from the bottom of the plow, which allows a few inches of dirt to fall on the tubing," says Holliday. "Then the crowns are laid on top of it about 16 in. apart."

The tubing has drip holes about 8 in. apart. He ties the tubing to a post at the end of a row and starts planting. He cuts it at the other end and repeats.

"Last spring I put liquid fish fertilizer through the drip line at the beginning of the season. It is pricey, but it really gives the



**Stewart Holliday uses this modified 1-row tree planter to plant asparagus. It prepares the trench and makes it easy to drop the crowns in, and it also buries drip tube irrigation beneath the crowns.**

plants a shot. They came up healthy and green."

Holliday also feeds his plants with organic chicken manure. He treats the soil with barn lime to keep it at the preferred 7 to 7.2 pH range. The program is working well.

"We have better than a 95 percent survival

from 3 years ago and about 99 percent overall," says Holliday.

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## He Built His Own Asparagus Harvester

Stewart Holliday's modified, zero-turn lawn mower makes it easy to pick stalks from his asparagus field. It eliminates the need to bend to pick spears from his nearly 40,000 plants.

"I started with a Dixon zero-turn and used 2 by 3-in. steel tubing to extend the frame," he says. "The longer frame let me move the seat forward and down and adjust the pitch. I bought new cables that let me reposition the foot pedals and controls as well."

Holliday framed in supports for a basket to the side of the operator's seat, as well as another one above the rear. He later added a swivel from a boat seat so the operator can turn to drop the asparagus into the side basket.

"I learned after the fact that I needed the swivel," says Holliday. "The seat can be adjusted up and down or back and forth to match the operator's legs. The pitch was the big thing, to get the operator as close to the ground as possible with minimal bending."

Holliday says the picker works great, whether using a knife or just breaking the asparagus off. He drives over the row with

wheels to either side.

Holliday lives in Arizona most of the year, but has developed other practices to make it easier to grow and harvest the asparagus on his Wisconsin farm. Each spring he applies chicken manure and barn lime and disks the patch to about a 2-in. depth. After he drags it, he plants winter rye at a heavy rate, drilling it in 2 directions.

"I don't go deep enough to hurt the asparagus," he notes.

As the rye emerges along with the asparagus, it keeps his picker from digging grooves in the field. "Once you cut a groove, it is there for the season," he says.

When the rye reaches 8 to 9 in., he mows between the rows every week or two. As it gets taller in the row, he will pick the asparagus to the ground and then mow the row.

He prefers to burn the entire field in the fall, but this past fall the asparagus remained green too late. He will burn this spring before disking and seeding.

"The asparagus really likes what we are doing," says Holliday. "Last spring it grew so fast I was picking twice a day from the end



**Holliday converted a Dixon zero-turn riding mower into this asparagus harvester, eliminating the need to bend to pick spears.**

of May through the first part of June."

Holliday sells wholesale off the farm. Finding buyers hasn't been hard.

"I put an ad on Craigslist and had to take it down after 2 days; I had so many orders," says Holliday. "I had one lady ask for 400 lbs. and took another 400 lbs. a few weeks later. A couple of older guys drove 2 hrs. to pick up 40 lbs."

Holliday has since added a walk-in cooler he purchased used from a local school and is considering a refrigerated box truck.

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## They're Growing Coffee In Texas

Most coffee is made from beans harvested in South and Central America, Kenya, Sumatra, or Hawaii. Coffee plants like cool mountain slopes with slightly acidic and well-drained soil. They like a canopy of trees above them and fresh rain.

So why are researchers trying to grow coffee plants in a warm, dry southern Texas valley with poorly drained, alkaline clay soil, where they get watered with salty Rio Grand water? Dr. Juan Anciso, an Extension horticultural professor, can answer that question.

Dr. Anciso is growing many different coffee varieties from around the world near Weslaco, Texas. The plants are being grown for research and education. High on the research list is a better understanding of the fungus *Hemileia vastatrix*, which causes coffee rust, the most economically destructive coffee disease in the world.

Rust is an especially significant problem for South and Central America. Part of the

problem with the rapid spread of the fungus is the lack of genetic diversity in coffee plants. Other factors such as poor horticulture and agriculture practices also contribute.

Anciso says there are only 35 recorded varieties of coffee plants in the world, not many for a global crop. In the 1600's, Caribbean plantations were populated with just a few plants from Yemen. Those plants served as the basis for much of the coffee now grown in Central and South America.

The Texas researchers are helping graduate students from coffee growing countries learn better horticultural practices such as canopy pruning and the physiology of fungus with the goal of breeding more disease resistant varieties and specific fungicides.

What are the chances of someday seeing coffee farms in North America? Anciso says probably not likely in the foreseeable future. Coffee is very labor intensive. Ripe seeds need to be picked almost daily from a cluster of unripe seeds making mechanical



**Dr. Juan Anciso is growing different coffee varieties from around the world in Texas, in order to gain a better understanding of diseases such as coffee rust.**

harvesting impossible. In millions of small farms around the world coffee growing is truly a family business with children, parents and grandparents all working together.

However, coffee plants can grow in many areas of the United States, so those who want

a truly fresh cup of coffee can have a potted plant or two on the patio.

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