

## One-Row Planter Perfect For Small Pumpkin Patch

Terry Dunlap's one-row pumpkin planter is ideal for planting the wide variety of pumpkins he and his partner, Sam Patterson, need for the farm stand they run each fall. They plant small areas every few days, depending on variety and time needed to mature, and to spread out the harvest season.

"We start planting about the 10th of June and go through the 10th of July, planting 10 to 14 acres depending on conditions," says Dunlap.

Large pumpkin farmers have commercial scale planters. Smaller operators, like Dunlap and Patterson, often plant by hand. That's what they used to do, using a disc blade to dig a shallow trench to drop seeds into.

To make the planter, Dunlap modified a single row, Allis Chalmers, no-till planter unit. He welded 3-pt. hitch connections to a length of 4-in. steel tubing to make a mini-toolbar. A wavy coulter was attached to run beneath the toolbar. Gauge wheels were attached to each end.

Different varieties of pumpkins require different spacing. The simplest solution was to have an operator seated ahead of the planter unit dropping seed as needed. A foot-long piece of channel iron mounts perpendicular to the top of the toolbar. It provides a base for the operator's seat. Two pegs on the planter serve as foot rests.

Making room for the operator's seat required pushing the planter unit another foot or so back from the toolbar. Dunlap bolted two lengths of channel iron to the toolbar. A short piece of 4-in. steel tubing welded at the other end of the channel iron provided a "toolbar" to mount the planter unit.

Dunlap replaced the seed box with a tray to hold seeds to be dropped. A funnel set in the center of the tray connects to the seed tube. The operator rests a bucket of fertilizer on the planter frame between his legs.

"Once the seeds are dropped down the funnel, a scoop of starter fertilizer follows," explains Dunlap. "We also broadcast fertilizer according to a soil test, but the starter gets the plants up and growing."

The planter unit's press wheel, which rotates every 8 ft., has a red mark at 4 ft. and a white one at 8 ft. The marks help the operator place the seed at the correct spacing, which can vary from 4 ft. to 12 ft.

The no-till unit lets Dunlap and Patterson plant pumpkins into the previous year's orchard grass, hay or a cover crop of rye. They roll the field in the opposite direction they intend to plant. That creates mulch that keeps down weeds and protects the pumpkins from wet dirt.

"The coulter cuts through the straw nicely, and the mulch reduces problems with fungus," says Dunlap.

The final touch to the planter was an



Terry Dunlap modified a single row Allis Chalmers no-till planter unit to make this one-row pumpkin planter, that he uses on his small pumpkin patch.

umbrella Dunlap mounted on it.

When the pumpkins start to ripen, the partners set up 30 picnic tables around the farmyard and load them with pumpkins. Customers select pumpkins from the different varieties, as well as Indian corn supplied by a neighbor and bundles of field corn stalks.

"We sell about a thousand bundles of stalks a year," says Dunlap.

They use a 1940's vintage, pto-powered corn binder that gathers 9 to 11 stalks per bundle. The binder was half buried in an old barn. The partners dug it out and took it to a car wash where they blasted away the dirt. They soaked all the joints with kerosene and



Dunlap and partner Sam Patterson load up pumpkins on their picnic tables each fall.

penetrating oil and discovered it worked fine.

Contact: FARM SHOW Followup, Terry Dunlap, 7155 Basil Western Rd. N.W., Canal Winchester, Ohio 43110 (ph 614 837-5444; tdunlaps@insight.rr.com).

## They Grow Fish And Veggies Together

For about \$3,000, you can buy an aquaponic system that'll let you raise fresh fish and vegetables year-round whether you are in Florida or Minnesota. Nelson and Pade, Inc. can set you up with a backyard system or a commercial-size operation.

Owners Rebecca Nelson and John Pade sell turnkey systems that are designed to install in any greenhouse.

"It's a loop," Nelson explains. "Fish are in tanks stocked fairly densely, and their water goes through filter tanks and through plant beds before going back to the fish."

The plants' roots draw nutrients from the fish water, and fish get clean water that's aerated, which benefits the fish, plants and good bacteria. The only "additive" is fish food, which contains healthy grains, minerals and vitamins.

Nelson notes that she and Pade got their start in hydroponics, growing vegetables in water. They liked the system, but didn't like using manmade fertilizers. They were attracted to aquaponics because it uses natural fertilizer from the fish. They started experimenting in the early 90's, and by 1997, they were putting out a quarterly Aquaponics Journal, and establishing themselves as leaders in the field. They make how-to videos, have written a book, and regularly offer three-day workshops for hands-on aquaponics training. They also have set up an accredited class with the University of Wisconsin.

With popular interest in fresh, local food, aquaponics offers a viable option. A family raising food for their own needs might raise hybrid bluegill fish, crappie or bass and an assortment of veggies from radishes to sweet corn. The \$3,000 F-5 "Food Factory" system produces up to 110 lbs. of fish per year and 900 to 1,440 heads of

lettuce per year with a 110-gal. fish tank and two 3 by 5-ft. beds. The vegetable growing setup has 90 plant sites that can be planted with any type of seedlings.

That ability to have a continuous supply is important for commercial growers who typically grow tilapia and lettuce. Systems range from \$46,000 to \$82,500.

Nelson says the company's bestseller is the Farm Market system, which grows enough food for home use and to sell at farmers markets. There are two options at \$20,000 and \$30,000.

A new system, the Living Food Bank, has been set up in Haiti to provide fresh food at a local mission. Nelson and Pade are excited about growing that part of the business to help feed people throughout the world.

Nelson says as more and more people get into aquaponics, it will become common to find produce and fish grown by aquaponics at grocery stores, which is good for consumers. There are many benefits for growers too.

"It's controlled environment agriculture and works in any climate," she says. Though it's water-based, the system uses less water than crops grown in soil. It takes 24 gal. of water to grow lettuce in soil, for example, and only 3 or 4 gal. when grown in an aquaponic system. Without soil, there are no soil-borne diseases.

"We sell the whole system, not parts," Nelson adds. "People have the most success if they aren't reinventing the wheel."

Systems have been sold to many countries, and there has been a growing interest in the larger commercial systems, Nelson says.

Contact: FARM SHOW Followup, Nelson and Pade, Inc. - Aquaponic Technology, Systems and Supplies, P.O. Box 761, Montello, Wis. 53949 (ph 608 297-8708; www.aquaponics.com).



Turnkey aquaponic system is designed to install in any greenhouse. It lets you raise fresh fish and vegetables year-round no matter what climate you live in.



It's a closed loop system. Water from fish tanks goes through filter tanks and plant beds before going back to the fish.