

# Transplanter Breaks New Ground

Speedling Inc. has introduced a new transplanter, planting 28,000 plugs per hour.

By Dan Stephens  
Western Editor

**A**N Indy driver would laugh at its top speed. Heck, so would a golfer. But in the race of automatic vegetable transplanters, Speedling Inc.'s new Select-O-Matic is a pole-sitter.

Tooling along at 4 mph, the world's newest automatic rig transplants 28,000 plugs an hour, adjusts planting depth on-the-fly — all at three times the speed of the competition. The speed and efficiency slashes growers' costs by 15%.

Old-fashioned savings married with state-of-the-art technology illustrate the lengths Speedling Inc. goes to keep its customers profitable and happy.

The four-row machine is designed for open furrow placing of Speedling transplants grown in California, Texas, and near its headquarters in Sun City, FL. At this time, the machine's not for sale. It will be used by Speedling exclusively for its customers.

Dr. Berl Thomas, Speedling's president and CEO, says the Select-O-Matic plants better, quicker, and cheaper than any of the other handful of automatic machines used by custom transplant operations. He unveiled this one-of-a-kind rig recently at Speedling's sprawling greenhouse operation in California.

During a field demonstration, powerful air pressure, hydraulics, and horsepower combined to tuck delicate White Rock cauliflower rootballs into the ground with nary a blemish. The Select-O-Matic planted 5 acres in an hour.

As 50 people looked on, the world's largest producer of containerized vegetable transplants



Shown here is the Speedling four-row planter. It can plant crops ranging from 2 to 7 inches tall — from broccoli to tobacco to pine trees. Plant spacing can be adjusted while the planter is in motion.



The transplanter handles the plant by the rootball and is designed to punch the plant from the bottom. Plant sensors using infrared detect and skip blank cells at a speed of eight cells per second.

entered the planting business. Before that day, Speedling was known only for growing and shipping transplants.

## Can Transplant Many Types Of Plugs

Unlike one type of automatic transplanter that features a plunging action to force the plug through the tray, the Select-O-Matic sets the transplant in the hole with kid gloves, without the violent exit. "Ours is designed to punch the plant from the bottom," says Thomas. "Ours handles the plant by the rootball."

That easy touch means the Select-O-Matic can transplant leafless crops, like onions, along with broad-leaved crops, like pepper and tomatoes, without harming the plant.

The four-row machine plants

two plants per second per row. Plant sensors using infrared detect and skip blank cells at a speed of eight cells per second. It's the only automatic transplanter to use the skip feature.

Both planting depth and spacing can be changed while the transplanter is in motion. As for storage, the transplanter stores two bins of 72 flats each, containing more than 40,000 plants.

The machine's versatile as well. It plants crops ranging from 2 to 7 inches tall, from broccoli to pine trees to tobacco plugs. Plant spacing in the row is infinitely adjustable from 2 inches to 10 feet — 10 feet might be used for pine trees.

The Select-O-Matic plants for two-, three-, or four-row systems. Double-row crops like celery, broccoli, and pepper — two rows per bed — can be planted successfully with two passes.

Accuracy, says Thomas, is a benchmark of the system, which plants to a depth of 4 inches. Depth can be adjusted on the move, and bed spacing can vary from 36 inches on the center to 66 inches from bed to bed. It utilizes a special 288 Speedling cell flat. Each plant cell is 1-inch square by 2<sup>1</sup>/<sub>4</sub> inches deep.

### Profits Take Root

The Select-O-Matic is operated by three people — a driver, a tray loader, and one person preparing bins at the end of the field. The operation does with a trio of workers what an eight-row mechanical transplanter does with 18 people. Less labor, less cost.

Speedling plans to pass the cost savings to the growers. "We want to transfer the savings to the grower — about 15% savings," says Thomas.

"We got into this looking at the customer's point of view. We wanted to do something that will keep the customer viable — something that will help him remain a customer."

Savings will vary. For example, cauliflower numbers 13,000 plants an acre. Cost is \$7 per 1000 plants. A savings of 15% would be about \$14 an acre. Processing tomatoes stand at 8400 plants an acre at a cost of \$12 per 1000. That's about \$15 an acre savings.

The multi-layered service from providing the plug to planting the transplant gives Speedling responsibility for all aspects, except actually growing the plant. Thomas says that's a burden quality-conscious Speedling is ready for.

The all-under-one-roof service also skirts common conflicts. For example, with the current system a grower buys a plug from a greenhouse, then a custom operation is hired to put them in the ground.

If there's a glitch in this typical system, says Thomas, the finger-pointing begins. The plug grower blames the transplanter; the transplanter blames the plug grower; and a disappointed grower results.

Under Thomas' theory, such scuffles won't exist because Speedling will have better quality control from beginning to end.

### Invest In Growers

Investing in the grower makes sense, says Thomas. The burgeoning transplant industry in the U.S. — especially California — competes with vegetables growers in Mexico and other areas. "And who knows what's going to happen when Fidel Castro passes on," Thomas says in reference to the vegetable transplant possibilities in Cuba.

Keeping up on technology helps

## Transplanter Quick Facts

**Speed:** 4 mph.

**Number of transplants per hour:** 28,000 with the four-row system at two plants per second per row.

**Flat size:** Utilizes a special 288-cell flat, each cell 1-inch square by 2<sup>1</sup>/<sub>4</sub> inches deep.

**Number of people needed for operation:** Three.

**Acres planted per hour:** 5.

**Plant spacing:** 2 inches to 10 feet.

**Planting depth:** Up to 4 inches.

**Bed spacing:** 36 inches on the center to 66 inches bed-to-bed.

**Plant capacity:** Transplanter stores two bins of 72 flats each, containing more than 40,000 plants.

**Price:** To be established. Will be a custom-transplanter.

growers stay competitive. Not only that, launching the Select-O-Matic in California is a natural. The Golden State is transplant happy and it grows year-round.

At this time, one Select-O-Matic is on call in California. Thomas says another four-row machine's en route, giving Speedling a capability of four million plants a day. Speedling will concentrate on high-volume growers. Thomas anticipates the machine will debut in Florida in a year and Texas in two years.

Speedling, which broke new ground a few years ago with its floatation method of transplant growing, isn't stopping with the Select-O-Matic. On tap next is a self-propelled mechanical transplanter. It will be lighter and able to enter a wet field sooner than conventional transplanters. Also under construction is a transplanter able to plant the plug through plastic mulch.

In the meantime as the Select-O-Matic straddles furrows across America's vegetable growing regions, the Speedling philosophy remains simple. "We want to help safeguard our customer in the present and in the future. We want them to be in a better position to survive. Our major concern is to reduce our customers' expenses." □

## Strictly A Custom Transplanter

**N**O sales of the Select-O-Matic are planned, according to Berl Thomas, president and CEO of Speedling, Inc. "We're in the developmental stages and we don't want a black mark on the transplanter or the company. Initially it will be used strictly as a custom transplanter." Speedling planting Speedling transplants.

Offshore, Speedling could license the technology. Thomas has looked at 26 countries. Most likely the first international customer will be from Australia. According to Thomas, the population of the country is low and the workforce harder to fill. This means they need mechanization to spur expansion. Additionally, Australia stands poised to export vegetables to Southeast Asia. And there are many firms expanding into the processed food and fresh market industry.