



DeHaan decided to build his cultivator-planter when he was unable to buy one of Hiniker's new tag-along air seeders that rides on its own wheels behind the cultivator.

HE MOUNTED A PAIR OF CYCLO BLOWERS ON A HINIKER 6-ROW CULTIVATOR

Air Planter Units Turn Crop Cultivator Into Drill

By Bill Gergen, Associate Editor

"It lets me seed beans and control weeds at the same time, while saving me the cost of a new no-till drill," says Roger DeHaan, Orange City, Iowa, who mounted a pair of International 400 Cyclo planter units on his Hiniker 5000 6-row 30-in. row crop cultivator.

To get parts, DeHaan bought two used IH 400 Cyclo planters. He mounted the seed drum, hopper, and blower from each planter on a steel frame that bolts onto the cultivator. An orbit motor, powered by a pto-operated hydraulic pump, drives each blower, and a ground driven wheel, taken off one of the planters, controls seed metering. The cultivator's V-shaped sweeps are 27 in. wide. A pair of 3/4-in. dia. plastic seed tubes run down the back of each shank and then run out along each wing on the V-shank sweep. The seed tubes are slit open on the wings so seed blows out in a "solid seeded" row that's about 15 in. wide.

"I tried it on 35 acres of disked-over soil last spring and it worked great except that I'd like a wider pattern of seed distribution. Right now there's about 15 in. between each row, which leaves about half the field unplanted. However, the plants fill in fairly rapidly so it looks like a solid-seeded field. The cultivator sweeps control weeds 4 in. tall or less and eliminate the need for a preplant burndown herbicide. When I'm done using the cultivator for planting I can unbolt the air planter units, lift them off with a front-end loader, and use the cultivator conventionally.

"I already had the 6-row cultivator, which is as wide as a 15-ft. drill, and I wanted to solid seed soybeans. I saw a story in FARM SHOW about Hiniker's new add-on air seeder (Vol. 15, No. 6) and wanted to buy one but they were sold out. Hiniker's system uses a Gandy air seeder to blow seed behind the sweeps. The air seeder mounts on a tow-behind "caddy" that rides on a pair of caster wheels. They have a poly insert seed delivery system that bolts inside each sweep. I wanted to mount the inserts on my cultivator, but the company wouldn't sell them to me so I made my own.

"One advantage to Hiniker's system is that it leaves only a 4 to 6-in. wide strip between rows. An advantage to my system is that there are no caster wheels behind to leave ruts in the field since I mounted the planter units directly on the cultivator.

"I already had my fields tilled when I built my add-on air seeder. However, it should



Air seed tubes run down the back of Hiniker's single sweep shanks and seed is deposited under the wings.

work equally well in no-till. I'll try it next year on untouched corn stalks although I may have to disk once to level the cultivator ridges. My system would probably also work for drilling milo if the right seed drum were used."

The angle iron framework that carries the planter units is connected by steel braces to the lower arms of the tractor's 3-pt. hitch. "The tractor carries more of the air units' weight than the cultivator carries," says DeHaan. "I fill the seed hoppers only half full, but I can still plant as much as I could with one full hopper on a conventional planter. I can plant 10 acres before I have to refill."

DeHaan removed the row markers from one of the planters and mounted them on the cultivator toolbar. The blowers on the Cyclo 400 planters were originally belt-driven off the pto shaft. DeHaan bought a pair of orbit motors and mounted one on the shaft of each blower. He tried using tractor hydraulics to operate the orbit motors, but didn't have enough hydraulic capacity so he bought a pto-operated hydraulic pump designed for an International 500 Cyclo air planter. A 4-gal. reserve oil tank (mounted on a platform between the seed hoppers) supplies oil to the pump.

"I spent a total of only about \$1,600 to build my add-on air planter system. Hiniker's add-on air seeder sells for about \$7,000. A conventional 15-ft. no-till drill sells for \$20,000 to \$25,000 and can only be used to seed.

For more information, contact: FARM SHOW Followup, Roger DeHaan, 109 6th St. N.W., Orange City, Iowa 51041 (ph 712 737-3331).



Steiner's cultivator has five rows of S-tines equipped with 2 1/2-in. sweeps.

"WORKS AS WELL AS ANY COMMERCIAL MACHINE"

"Built From Scratch"

22-Ft. Field Cultivator

The price tags on new field cultivators prompted Stefan Steiner, Thurso, Quebec, to design and build his own 22-ft. model from scratch, equipping the heavy-built rig with tandem rolling baskets.

"It cost less than \$5,000 to build and works as good as commercial field cultivators that cost up to \$15,000," says Steiner. "Everything I used to build it was new, except for the hubs, wheels, and tires, which I borrowed from an old New Holland forage harvester and an old International pull-type combine. Most commercial models are built from 2-in. sq. tubing and have welds that eventually crack or break. I used 3-in. tubing and double or triple welded everything. I've used it for a year and I can't see any wear at all."

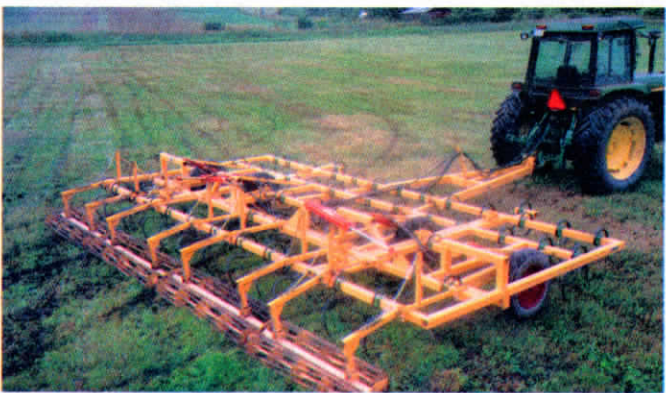
The home-built rig is equipped with five rows of S-tine shanks (55 in all, one every four inches) equipped with 2 1/2-in. wide "goosefoot" sweeps that Steiner bought from a Deere dealer. The frame has a 12-ft. wide center section and 5-ft. wings. He built three hinges for each wing out of 1/2 by 3-in. flat

iron and a 1-in. dia. shaft. Each of the four wheels is fitted with an 8-in. hydraulic depth control cylinder. To ensure stability, the two center wheels are joined by a shaft made out of 4-in. dia. steel pipe. He used two 10-ft. lengths of 3 by 5-in. rectangular steel tubing to build the hitch which can be adjusted to match any tractor drawbar hitch. The wings are raised or lowered by a pair of 24-in. cylinders.

Steiner built the tandem rolling baskets in five 4-ft. wide sections, using lengths of steel re-bar mounted on 7-in. dia., 1/4-in. thick steel plates spaced 12 in. apart. The rebar is welded into notches that Steiner cut around each plate. A 1-in. dia. steel shaft runs through the center of the plates and is held in place by a bearing on each end.

"I've never used a commercial unit this big but I can't believe they would work any better than mine," says Steiner.

Contact: FARM SHOW Followup, Stefan Steiner, 332 Route 148, Thurso, Quebec Canada J0X 3B0 (ph 819 985-0421).



Each wheel is fitted with a depth control cylinder. Fold-up wings are 5 ft. wide.

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