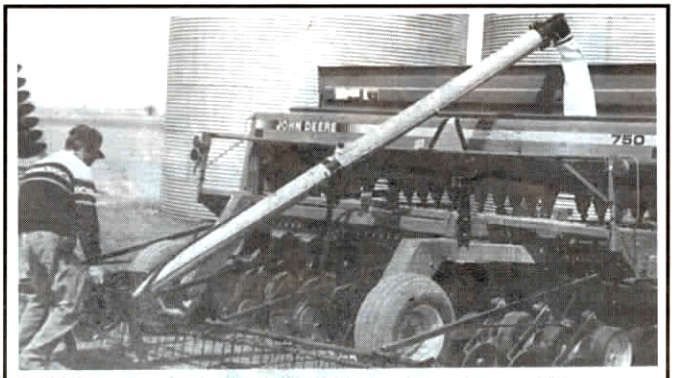


Drill fill auger works simpler than anything on the market, says Mabeus.

Easy-To-Use Drill Fill Kit

"I came up with a kit to mount a drill fill auger on back of a Deere 750 drill. I built it for my own use and it works so much simpler than any other system I've seen on the market, that I decided to market it," says Rick Mabeus, Winfield, Iowa.

It consists of a fold-out arm made out of square steel tubing that mounts on back of the drill. A free spinning cradle mounted on the end of the arm holds a 6-in. dia. 14-ft. auger. Another bracket with a fixed cradle mounts on one side of the drill to hold the auger when it's in the transport position.

When needed to fill the drill with bulk seed, the balanced auger simply swings out and down. The bracket pivots outward, and the auger turns freely in the cradle on the end of the arm. The combination of the cradle and the pivoting arm allows the auger to reach the full length of the drill from a single loading position. A flexible spout on the end of the auger makes it easy to spread the seed out in the hopper.

"There are no hydraulics or any other complicated mechanisms required to handle the auger. It's well-balanced so it's easy for one man to handle," says Mabeus. The auger itself is hydraulic driven by a motor on one end.

The drill-fill kit is currently available only for Deere 750 drills but Mabeus is working on fitting other models.

Sells for $1,575.

Contact: FARM SHOW Followup, Rick Mabeus, 22419 60th St., Winfield, Iowa 52659 (ph 319 257-6764 or 6779).

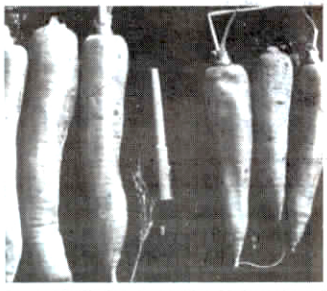
"Fertilize" Crops With Air

A Colorado company that designs subsurface drip irrigation systems has come up with a new way to boost yields - they pump air into the plant root zone.

Gro-Aire Irrigation Systems, Inc., Denver, Colo., began offering the system last year after testing it extensively for several years. The company's subsurface poly tubing is specially designed for both water and air, with each delivered separately. An air compressor powered by a diesel engine or electric motor is used to deliver air.

"Pumping oxygen to plant roots allows them to do a better job of taking up nutrients and water," says Dave Enyeart, senior engineer. "The extra air promotes bacterial reactions in the soil that break down organic matter and convert atmospheric nitrogen into a form that can be used by plants. The bottom line is that farmers save money by reducing or eliminating the use of commercial fertilizers without sacrificing yields. In fact, many growers have been able to increase yields with less fertilizer. We've seen alfalfa yields increase from 6 tons per acre to as much as 10 tons per acre.

"The system has also been used on popcorn, field corn, sweet corn, vegetable crops, triticale test plots, nursery trees, etc. So far we've installed over a million feet of the specially-designed tubing in Iowa, Nebraska, Colorado, Oregon, and Idaho. We started out doing small 20 and 50-acre plots, but the projects keep getting bigger. This fall we installed a system on 40 acres of potatoes. We can even install the system on fields irrigated by center pivots. Air moves farther in the soil than water does so much less tubing is needed, greatly reducing the cost. We use special-designed subsurface irrigation tubing that works well for both water and air. Conventional subsurface tubing doesn't work as well with air as it does with water.



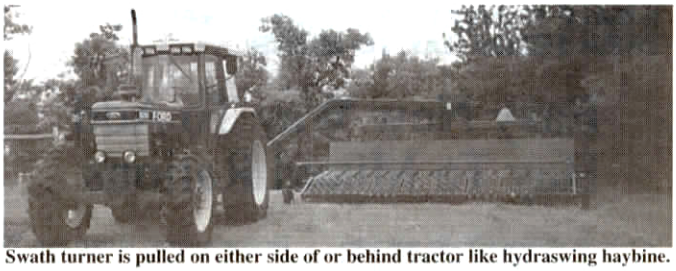
In controlled tests at the University of Nebraska, aerated carrots (left)grew an average of 11 in. Non-aerated carrots averaged 7.5 in.

"The technology was developed over the past 17 years at universities, experiment stations, and on private farms. As far as we know we're the only company to offer it commercially."

The company sells "air generation stations" that include a diaphragm or piston compressor for smaller plots and a blower for larger fields. After each irrigation, the valve that controls the water pump is shut off and a set of air valves is opened to allow air into the tubing

"We custom design each system according to the field and soil conditions and crop type. Cost ranges from $650 to $2,300 per acre."

Contact: FARM SHOW Followup, Gro-Aire Irrigation Systems, Inc., 1120 Lincoln St., Suite 704, Denver, Colo. 80203 (ph 303 650-0472).



Swath turner is pulled on either side of or behind tractor like hydraswing haybine.

SWINGS TO EITHER SIDE OF TRACTOR

First-Of-Its-Kind 16-Ft. Swath Turner

"We saved up to 50% of our crop with it a few falls ago when it rained for three weeks after we cut hay. By the time the rain finally stopped, there was a lot of new growth coming up through the swaths, but we were still able to pick them up. Otherwise, we'd have lost the whole crop," says Doug Finlay about a prototype one-of-a-kind center-pivot swath turner his company built a few years ago.

The swath turner features a 16-ft. wide pickup, which is a full 10 ft. wider than that on the biggest commercial swath turner available. Finlay built it to match his 16-ft. wide New Holland 116 haybine.

"It lets us pick up one swath and lay it on top of the adjacent one to make a bigger swath for faster hauling in wet or dry conditions," explains Finlay, who raises alfalfa and brome near Rapid City, Manitoba.

Built entirely from scratch, the swath turner's pickup trails 10 ft. behind the tractor it's pulled with, thanks to the gooseneck hitch attached to a unique hydraulic center pivot on top of the machine's frame.

"The hitch swings the swath turner the same way a hydraswing haybine does so you can pull the header off to either side of the tractor or directly behind it," says Finlay. "That way it doesn't matter where your swath is. You can always pick it up without riding over it with the tractor."

The pickup uses three 4-in. dia. rollers to gather hay. Belts, made out of standard pickup canvas laced together in a 16-ft. width, handle the hay coming off the pickup. Belts are driven hydraulically, as is the pickup. It can be run flush with the ground or can be raised up to 2 1/2 ft. high.

Swath turner features a 16-ft. wide pickup and center pivot gooseneck hitch.

With pickup rollers turning at 175 rpm's, the turner will stand the swath on end, while at 350 rpm's it'll turn it completely over, Finlay says. Swaths can also be dropped off either side of the machine with a bi-directional belt control system that's operated from the tractor cab.

"We've been fine-tuning it for three years and have all the bugs worked out. It works equally well in wet or dry conditions," says Finlay. "We think there's a real need for it in the marketplace."

Selling price of the machine, which could be available as early as next season, will be an estimated $18,000 (Canadian).

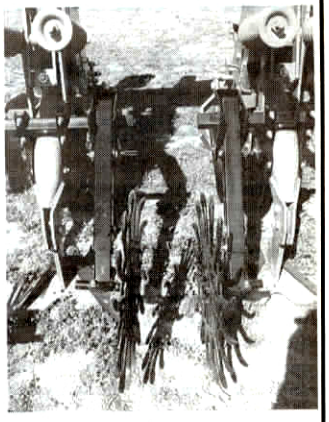
Contact: D K Manufacturing, Box 176, Rapid City, Manitoba, Canada ROK 1WO (ph 204 826-2226).

Rotary Hoe Shields Double As Cutaway Discs

New rotary hoe shields for Hiniker 1000 and 6000 cultivators combine the benefits of a rolling shield with the weeding charcteristics of a cutaway disc.

The hoe shields mount on separate arms and can be set to three different configurations, depending on crop size and weed pressure, by changing the position of a bolt. In crops as small as 3 in. you can set the wheels aggressively with the leading edge as close to the row as necessary to remove weeds without pruning the roots. In late season cultivations you can remove weeds close to the crop row by reversing the wheels, which works less aggressively but still extracts weeds without damaging plant foliage. To make ridges you can place the wheels behind the cultivator sweep to direct soil back into the row.

"It lets you control weeds close to the row without the root-pruning problems of cutaway discs," says Jim Johnson. "The open center design lets you use the shields in tall or short crops. The length, width, angle, and downpressure settings of the shields are all adjustable."



Using hoe wheels as shields provide the benefits of rolling shields and weeding charcteristics of cutaway discs.

Sells for $250 per row.

Contact: FARM SHOW Followup, Hiniker Co., Airport Road, Box 3407, Mankato, Minn. 56002 (ph 507 625-6621).