

First prototype forced air seeder developed by Jerome Bechard. Caddy behind tractor carries seed and dry fertilizer, and is equipped with blower which forces seed (and fertilizer) through hoses which spout it behind individual disks on the one-way disk plow.

FORCED AIR SEEDERS "PIGGYBACK" ONTO CHISEL PLOWS AND OTHER TILLAGE TOOLS

"Breakthrough" Seeding Systems Introduced

You've never seen anything like it — a new way to seed small grains and other crops that reportedly "runs circles" around conventional grain drills. With refinements, it may even compete with conventional corn and soybean planters as an all-purpose planter and the only one you would need, regardless of what type crops you raise.

"Interest is tremendous," reports Keith Ballwet, North Dakota farmer and U.S. distributor of the new Bechard Seeding System. Invented by Canadian farmer, Jerome Bechard, of Lajord, Sask. this first of its kind seeding system "piggybacks" onto pull-type chisel plows, field cultivators, disks or other tillage equipment, allowing you to seed small grain, spread fertilizer, apply chemicals and prepare the seed bed — all in a once over operation and in widths up to 90 feet.

Seed and dry fertilizer are carried in a 2-compartment, self-contained caddy that hooks behind the tractor. Heart of the Bechard Seeding System is a large fan, powered at 4,000 rpm by a 18 hp. Volvo engine, which creates an air stream. Seed and fertilizer are augered into the air stream and blown, via flexible plastic hoses, to special spouts or boots mounted alongside or behind the shank or disks of a chisel plow, field cultivator, disc or whatever type tillage implement is being used.

Ballwet has conducted several demonstrations in North Dakota and Montana and is taking orders for the new Bechard Seeding System, which is manufactured in Winnipeg, Can. "We sold 15 systems at the very first demonstration," he told FARM SHOW.

Another forced air seeding systems, also developed in Canada, was demonstrated in the Dakotas and Minnesota last summer and fall. Called the Pride Seeding System, it has

since been acquired by Prasco Inc., 1820 Selkirk Ave., Winnipeg, Can. "We have made a lot of refinements and plan to produce about 55 units for sale in the U.S. and Canada in the months ahead," Richard Evanson, sales manager, told FARM SHOW. He notes that instead of dry fertilizer the new "Super Seeder" from Prasco will handle liquid fertilizer. It's designed primarily for mounting on chisel plows and is being sold factory direct to interested farmers, according to Evanson.

Although forced air seeding systems which piggyback onto chisel plows, discs or other tillage equipment are new in the U.S. and Canada, the basic concept has been produced commercially for several years in other countries, including Sweden, Germany, and Australia. In Australia, for example, the Connor Shea Co., headquartered on 4th Avenue in Sunshine, Victoria, offers a trailer pneumatic seeder called "The Accurate One", with 40, 48, 56 or 64 outlets. "We introduced this form of pneumatic seeding of both small grains and fertilizer more than 5 years ago," reports a spokesman for Connor Shea.

Here, according to Ballwet, are key features of the Bechard Seeding System:

- The supply of seed (or dry fertilizer) is carried in a separate caddy, rather than on the seeding implement, as with conventional, gravity-type small grain drills. Seed is blown into the ground by air rather than letting it drop down by gravity. The caddy has split compartments for carrying 115 bu. of small grain seed and 3½ tons of fertilizer.

- Because the system can be "piggybacked" on existing tillage equipment, you can seed in a much wider swath — up to 90 ft. — than with a conventional drill, and operate much longer between refills.

- The 4,000 rpm fan provides the air stream which makes the revolutionary seeding concept work. Adjustable augers move seed and fertilizer into the air stream at a preset rate. Flexible plastic hoses direct the airborne seed to outlets at each chisel or disc, depending on the type of tillage equipment being used.

- Since the seed (or fertilizer) is carried in a separate caddy, weight on the discs or shovels remains constant and is not affected by the amount of seed. As the seed supply runs out, it does not change the amount of weight applied to the discs or shovels. This, in turn, helps maintain a constant depth.

- By simply blowing out the plastic tubes, you can completely clean out the seeder in switching from one grain to another without contamination.

- On his original model, Bechard wasn't able to adjust speed of the hydraulic-driven auger which feeds seed and fertilizer into the air stream. Models now being manufactured deliver a constant seeding rate, regardless of ground speed, Ballwet points out. He notes that the operator can turn the seeder on and off right from the tractor seat but cannot adjust planting rate on the go. However, he does have a wide range of adjustments which can be made by stopping the unit and making the adjustment.

- Even when taking a wide swath

— up to 90 ft. — airborne seed (or fertilizer) reportedly moves through the flexible hoses uniformly to provide the same seeding rate at the far ends and at all points in between.

- Augering seed into the air stream and "hosing" it long distances from the central fan or propeller through 50 or more feet of hose doesn't crack or damage the seed. "We think it will even seed soybeans without a lot of damaged or cracked seed, but haven't done enough work with soybeans to really know for sure," says Ballwet.

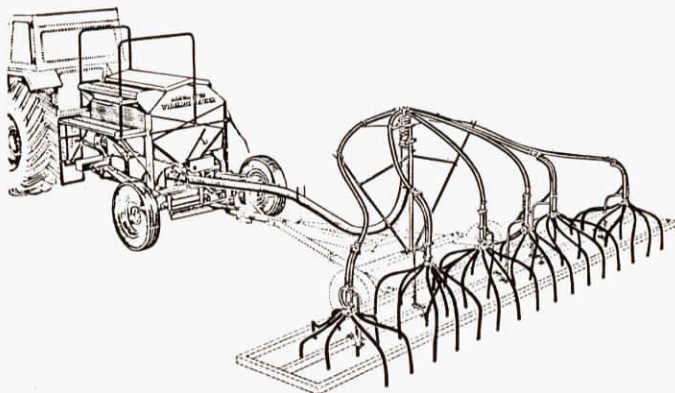
- Because it mounts on tillage equipment, Ballwet feels the new-style seeder is ideally tailored for planting small grains and other crops with minimum tillage. "It isn't really a no-till machine, but with discs and possibly other adapters, it could easily be converted into a no-till drill used in conjunction with a chisel plow or other tillage tool."

- The big savings, according to Ballwet, with the new Bechard Seeding System is in being able to reduce up to five or more separate operations into a once over operation, including seedbed preparation, seeding, fertilizing, herbicide application and incorporation, and a post planting harrowing operation — all reduced to a once-over trip with a chisel plow or other tillage tool and the new seeding system.

- The chisel plow or other tillage equipment doesn't have to be operated as deep when seeding is combined with the tillage operation. Consequently, says Ballwet, the seeding system requires essentially the same horsepower as was being used previously to pull the tillage tool. The seeding system is accurate at high speeds and isn't bothered by rocks.

Cost? A 40 ft. unit runs about \$15,000. Adapting it to larger chisel plows, or other tillage implements, runs about \$40 per ft., making a 60 ft. system right at \$16,000 and a 90 ft. unit right at \$17,000. "You can get up to 90 ft. of seeding width for about the same price of 3 10-ft. conventional grain drills," says Ballwet.

For more details, contact: FARM SHOW Followup, Bechard Seeding System, Keith Ballwet, Langdon, N.D. 58429 (ph. 701-256-4000).



Connor Shea pneumatic seeder is available with 40 to 64 outlets. It uses only one seed run and four fertilizer "stars" or clusters for the entire machine. Adapts to most chisel plows and other tillage tools.