

# New system 'blasts' fertilizer into soil

FARSIPPANY, N.J. — A new system that bands liquid fertilizer beneath the soil surface without using knives or tillage tools has been developed by Arcadian Corporation (formerly the agricultural products group of Allied Chemical).

Known as Nutri-Blast 2000, the unique system uses 2,000 pounds of pressure to "blast" liquid fertilizer through crop stubble and into soil.

"With Nutri-Blast 2000, farmers can take advantage of subsurface banding — a proven method of increasing fertilizer efficiency — without compromising on the principles of no-till farming," says John Clapp, manager of product development of Arcadian.

Nutri-Blast 2000 enhances fertilizer efficiency by minimizing fertilizer contact with crop residues and large volumes of soil, explains Clapp. And because fertilizer is placed beneath the soil surface, no urea is lost to ammonia volatilization, a common problem

when urea-containing fertilizers are left on the soil surface or topdressed on small grains or grasses.

At the same time, Nutri-Blast 2000 eliminates the need for tillage during fertilizer application, continues Clapp. This makes the Nutri-Blast system more energy efficient than systems employing undercutter blades, knives, disk openers and similar equipment. What's more, with Nutri-Blast 2000 there is little or no risk of damaging the crop's root system, a common occurrence when fertilizer is knifed between rows.

Already no-till test plots comparing Nutri-Blast 2000 with conventional surface-band applications have shown that Nutri-Blast produced nearly 20 bushels more corn per acre — 17 percent increase. Currently, a half dozen land-grant colleges throughout the country are using Nutri-Blast 2000 in field trials.

Having applied for a patent on

the application concept and design of Nutri-Blast 2000, Arcadian has recently reached an agreement with John Blue Company to produce and market the new system.

John Blue will make Nutri-Blast 2000 available in three models. One can be directly attached to a tractor using a three-point hitch, while a second has been designed for use with no-till planters and grain drills. The third model is a caddy unit capable of pulling implements.

The three models will be equipped with a variable displacement pump and a rotary valve that injects liquid fertilizer into the soil for more efficient use of plant food. John Blue has applied for patents on the pump and valve, and expects to have the entire Nutri-Blast system commercially available by February 1985.

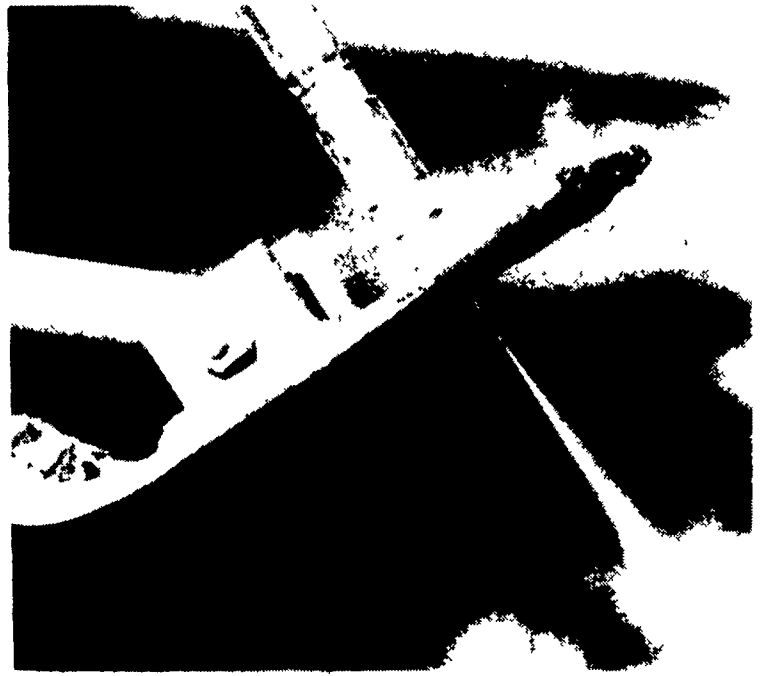
In addition to injecting liquid fertilizer, the Nutri-Blast system also can be used for application of insecticides and fungicides, either separately or in combination with fertilizer.

Because the Nutri-Blast system requires very small orifices to create enough pressure to blast fertilizer through stubble and beneath the soil surface, it is

recommended that only high-quality, clear-liquid fertilizers, for example Uran nitrogen solution, Suran nitrogen-sulfur solution and Poly-N ammoniated polyphosphate solution, be used. Low-quality fertilizer solutions, suspensions and other fertilizers

containing impurities can plug or erode orifices.

The Nutri-Blast 2000 concept was originally designed with conservation-tillage farming in mind, however, experience indicates that the system will have broad application in all agricultural areas.



Two thousand pounds of pressure send a jet of liquid fertilizer through a Nutri-Blast shoe (raised here for photo).

## 2 Pa. bulls to ABS

DE FOREST, Wis. — Two Pennsylvania bred Holstein bulls have been selected by American Breeders Service to enter their Progeny Testing Program.

They are Rowe-Spring Penny Ford Paul-ET, bred by Stanley J. Helman, Chambersburg; and Pen-Col Beau-ET, bred by Pel-Col Farm, Millville.

Rowe-Spring Penny Ford Paul-ET is the result of a mating between the highly regarded I-O-State Chief Ford, +\$137, +1,340M and +30BF and Rowe-Spring Ivanhoe Penny. His dam has production

records to 27,810 lbs of milk. She is classified VG-88 and is sired by Fen-Col Ivanhoe Star.

Pen-Col Beau-ET is the result of a mating between the highly regarded Donacres Dynamo-Twin, +\$73, +547M, and +22BF and Fen-Col Milestone Best. His dam has production records to 27,998 lbs of milk. She is classified VG-86 and is sired by Poverty-Hollow Milestone.

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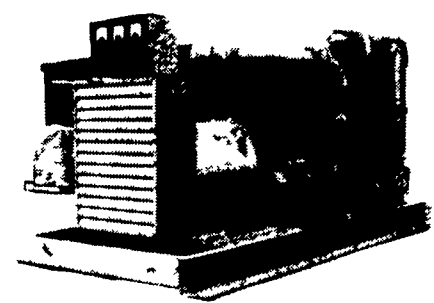
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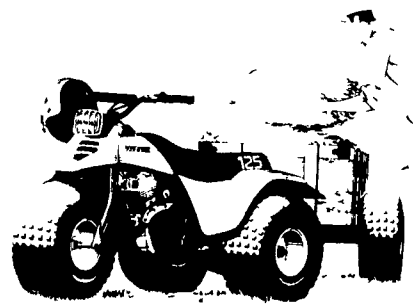
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