

Solid soybean seeding OK with reduced tillage

ST. LOUIS — It looks like conservation tillage is compatible with solid seeded soybeans, according to agronomists at Purdue University.

"The normal yield response we've come to expect from solid seeding is coming through with conservation tillage systems," says Marvin Swearingin. Swearingin and his associate Donald Griffith recently completed a year's study of solid seeded soybeans and conservation tillage. The study was incorporated into two ongoing corn-soybean tillage rotation experiments at the Purdue Agronomy Farm (PAF) at Lafayette and the Southeastern Purdue Agricultural Center (SEPAC) at Butlerville.

"Although we have just one year's information, I think no-till drilled beans will work if a specially adapted drill is used and perennial weeds are not a problem," Griffith says. "Equipment manufacturers have come out with new drills recently that will work with conservation tillage and farmers are eager to put them to use."

The agronomists say their first-year results came closer to meeting their objectives than they had anticipated. In this part of their research, which was funded by the American Soybean Association and BASF Wyandotte, the researchers wanted to compare the effect of crop rotation, tillage system, and row spacing on soybean seed yield and other plant characteristics. They also wanted to see what the odds were for season-long weed control in soybeans planted in untilled seedbeds using only post-emergence as opposed to pre-

emergence herbicides.

Tillage systems used at the main tillage plots at PAF were fall plow, fall chisel, till-plant, and no-till both following corn and as continuous soybeans. The main tillage plots at SEPAC were spring plow, spring chisel, spring disc, fall-formed beds, and no-till, all after corn.

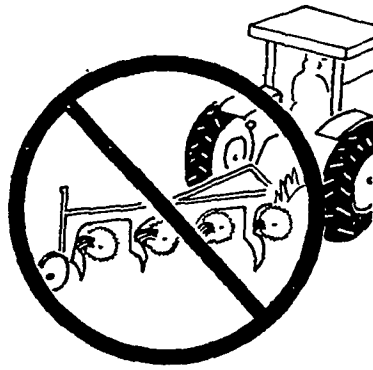
The researchers split the plots so that they could compare 10-inch rows and 30-inch rows, except on the till-plant and bed systems, which aren't suitable for solid seeding. The plots were also split to compare pre- and post-emergence herbicides.

The agronomists were able to produce no-till soybean yields at the two locations equal to yields with conventional tillage. Under no-till, the soybean plants were slightly shorter, lodged slightly less and had more weeds, but not enough to affect seed yield, the researchers say.

"All the no-till plots were treated with Paraquat at planting for knock-down of growing weeds," Griffith says. "We did not have a problem in getting a stand of no-till beans, but extra weight must be added to the drill for dense soils."

Problems of full-season no-till soybean production are not all resolved. "Consistent and economical weed control will depend on weed species present and timely post-emergence herbicide application," according to Griffith. "I'd still go for the combination of pre-emergence and post-emergence herbicides in many situations. With double-cropping, however, no-till solid-seeding has been very successful with pre-emergence chemicals."

Row spacing showed the largest and most consistent effect in the



trials at Lafayette. Drilled plots averaged 53.2 bushels per acre across all tillage, herbicide and rotation combinations, an increase of 7.3 bushels or 16 percent over 30-inch rows. Weed control in solid stands was equal to 30-inch rows and in some cases better where solid drilled soybeans were more competitive with weeds than noncultivated rows.

"The most difficult environment for weed control is, obviously, no-till continuous soybeans in rows," Swearingin says. "In a true no-tillage situation, drilled soybeans offer their greatest advantage over rows."

Similar trends were observed at SEPAC. In spite of the fact that the no-till plots had slightly more weeds, the highest yields — close to 60 bushels per acre — were obtained in the no-till drilled plots. This suggests that if weeds can be consistently controlled, excellent soybean yields are possible on the flat, poorly-drained problem soils of southeastern Indiana. The yields of the 10-inch rows averaged 16 percent above the 30-inch rows,

and weed control in the 10-inch rows was equal or slightly better. This year the trials will be repeated at the same locations. At

least two new on-farm environments will be tested with the no-till drill in the double-cropping sequence, the researchers say.

Commonwealth Bank wins award for egg promotion

HARRISBURG — The Bank Marketing Association, an international group made up of banks and savings and loan institutions, has selected Commonwealth National Bank to receive a marketing award in recognition of the bank's May 1981 promotion for Pennsylvania's egg industry.

Depository institutions in the United States, Canada and several foreign countries who are BMA members are eligible to compete for the five Golden Coin Awards offered annually by the association.

Commonwealth National Bank's award stemmed from its marketing program targeted to area farmers. The program highlighted the state's egg in-

dustry and helped to increase public awareness of the nutritional value of eggs.

The most visible part of the program was the bank-sponsored preparation of a five-foot omelet in front of Commonwealth National's Lancaster Region Headquarters on Penn Square in Lancaster.

State and county officials and representatives from the egg industry joined bank officers as honorary chefs who prepared and served the omelet to hundreds of onlookers.

Also recognizing the program was the Pennsylvania Egg Marketing Association, who presented its first "Distinguished Service Award" to Commonwealth National Bank.

Harkin to address MMI

STRONGSVILLE, OH — U.S. Congressman Thomas R. Harkin, recently named as the Distinguished Citizen of Agriculture by the National Milk Producers Federation, will be the keynote speaker for the Fifth Annual Meeting of Milk Marketing Inc. The meeting will be held Tuesday, Dec. 14, at the Fawcett Center for Tomorrow, Ohio State University, Columbus, OH.

Harkin, chairman of the

Livestock, Dairy and Poultry Subcommittee of the House Committee on Agriculture, will discuss dairy legislation and the importance of the involvement of the individual in the political process.

MMI President Norman Alger, Mantua, OH and MMI General Manager Gordon Riehl will discuss the theme of this year's annual meeting "Working to Assure the Dairyman's Future".

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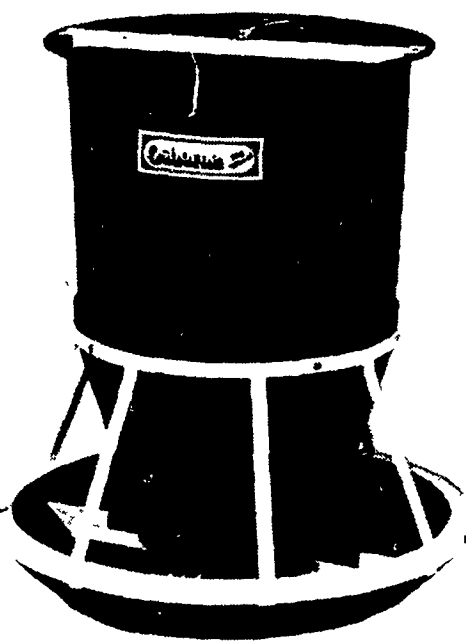
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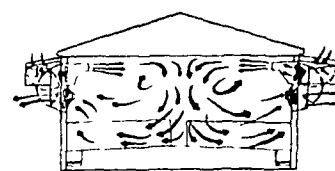
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