## Granular inoculum doubles soybean yields

MAXATAWNY - Since 1920 when soybeans were first introduced in the U.S., the inoculation of the seeds with rhizobia bacteria has been a crop yield. A powdered rhizobia inoculum applied directly to the seeds has been used most successfully by farmers since that

But tests recently completed at the Rodale Research Center have shown that a new granular inoculum called Soil Implant can be even more effective in increasing yields than its powdered predecessor.

Agronomy researcher Martin Culik describes the results of the Research Center test:

"For our experiment, we divided

up a field that had not been planted to soybeans in at least ten years, he says. "Our control plot, which received no inocolum, yielded only 22 bushels per acre. Applying a recommended practice to increase % popular dry powder inoculum to seeds on a second plot yielded a respectable 36.4 bushels. On the third plot, however, we applied a newer, granular inoculum to the soil. The yield for that plot was 42.9 bushels per acre, nearly double the amount produced without inoculation."

The granular inoculum more than pays for itself, says Culik. "Figuring soybeans at \$5 per bushel, the granular inoculum grossed about \$25 more per acre than the dry powder treatment and almost \$115 more per acre than the untreated plot."

The granular inoculum seems to be effective for several reasons, he notes. It protects the rhizobia from high temperatures and dry soil conditions that could kill the bacteria. And, because of its formulation, it seems to place more rhizobia near the plant roots. In addition, it is applied at a higher

rate than seed applied inoculum. usually through the recalibrated insecticide hoppers of row-planters or the fertilizer or small seed hoppers or grain drills.

There are several granular inoculums presently available. The one used by the Rodale

Research Center has been marketed in the south for seven years. It is manufactured by the Nitragin Co., Inc., 3101 W. Custer Ave., Milwaukee, WI, 53289; 414/462-7800. Another supplier of granular inoculum is Urbana Laboratories, 402 N. Race St., Urbana, IL 61801; 217/367-3046.

## Grange starts new investment service

HARRISBURG - In order to help farmers and rural residents make wise use of their savings, the Pennsylvania State Grange has started an investment service which will offer complete financial services and planning for Grange members.

The new Grange Investment

Service is an expansion of the Grange's current Individual Retirement Account Service, which now assists members with opening tax-deferred IRAs, according to Charles Wismer, State Grange Master.

"We saw a need to offer sound investment advice to our members at prices they can afford," Wismer said. "With all the new investment options open to people, finding the right one can be very confusing. Good financial advice is hard to find without paying exhorbitant brokerage fees.'

Stocks and bonds, mutual funds, money markets, and certificates of deposit are a few of the many investment opportunities offered through the new Grange service. Rates will be more than com-

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petitive, Wismer said.

Charles Vance, an investment broker who currently runs the Grange IRA Service, will also head the investment program from his Harrisburg office. In most cases, investments will be handled by phone via a toll-free number, and by mail.

The firm backing the investment service is a member of the New York Stock Exchange, American Stock Exchange and the Philadelphia Stock Exchange.



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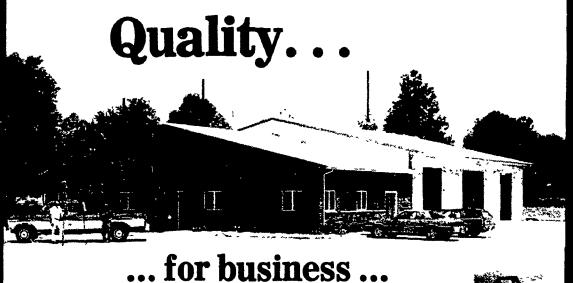
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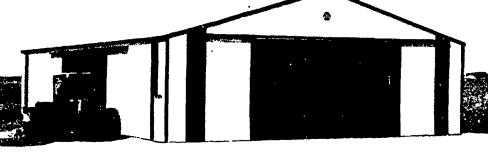
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