

# New forage/grain tester system introduced

SILVER SPRINGS, Md. — Pacific Scientific introduces the new Model 51A NIR Forage Tester System which features factory-installed calibrations for hay, haylage, corn silage, corn grain, and soymeal. This new system simultaneously tests forage for protein, dry matter, ADF, Ca, K,

P, and Mg at the touch of a computer key. Designed to work with IBM PC, Apple IIe, TRS-80, and Advantage computers, the new 51A produces detailed reports by client and a summary report for the system operator. All software and calibrations were formulated by

Infrasoft International, a company headed by Dr. John S. Shenk, Professor, The Pennsylvania State University and a well-known authority on NIR forage applications.

Thirty minutes after arrival at the customer site the 51A forage tester, which is also van mountable as a mobile laboratory, is ready to test forage samples. As calibrations for other materials (feed ingredients, mixed feeds, etc.) become available, they can be added to the tester on-site by software change only. Ration balancing programs are also available on optional basis.

Pacific Scientific is a high-technology manufacturing company serving agribusiness and industry with multiple lines of electro-optical instrumentation. For further information on the Model 51A NIR Forage Tester, please contact the Gardner/Neotec Instrument Division, Pacific Scientific Company, Attention: Linda Newberry (301) 495-7000.



Pacific Scientific's new Model 51A NIR Forage Tester.

# Monsanto will test bacterial insect toxin

ST. LOUIS, Mo. — Monsanto Company said today it is preparing formally to notify the U.S. Environmental Protection Agency of the company's intention to field test soil bacteria that have been changed through biotechnology to produce a naturally occurring insecticide.

Monsanto has developed techniques for inserting into a common type of soil bacteria a gene which causes the bacteria to make the insect toxin. The gene comes from a microbe known as *Bacillus thuringiensis*, which has been registered for insecticidal uses for more than 20 years, and which has excellent safety properties. The genetically engineered microorganism would be tested next spring at the company's research farms near the company's St. Louis headquarters.

The test bacteria normally live in the soil in association with crop plant roots. With the new ability to produce their own insecticide, the bacteria can protect the plant roots from certain types of soil-dwelling insect pests.

"The genetically engineered microbe has been studied in laboratory, growth chamber and greenhouse tests," said Dr. John

T. Marvel, general manager of agricultural research at Monsanto.

"These studies indicate possibilities for improved pest control, but the microbe must be tested in crops in the field to assess its true potential for agriculture."

An interim policy issued by the EPA in October requires the Agency be notified before any small-scale field testing of microbial pesticides is conducted. In late November, Monsanto submitted to the EPA some preliminary testing data on the microbe, and research protocols on safety and environmental studies the company has been conducting. The results of these studies and the formal notification to the EPA of Monsanto's proposed field test will be submitted to the Agency later this month.

"This research project is a significant milestone in the application of biotechnology to agriculture," Dr. Marvel said. "We have developed a test system for soil insect control using genetically engineered bacteria, and if our field research confirms that the system works, we can apply these new techniques to developing and commercializing products the farmer can use to protect crop yields."

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# Eastern expands dairy products market

SYRACUSE, N.Y. — Earl R. Forwood, President of Eastern Milk Producers Cooperative Association, Inc., announced today that agreements have been completed to extend the organization's dairy products distribution system to the members of Lehigh Valley Farmers of Allentown, and to the Maryland State Grange. The additional customers will increase Eastern's distribution by approximately 5000.

Eastern's Dairy Products Division, headquartered in Canton, was started just four years ago as a simple "products to producers" distribution system. In the short time since its inception, the division has developed to include extensive truck delivery routes as well as a large warehouse and retail store at Canton, and retail stores in Wellsboro, and Newark, N.Y.

President Forwood praised the efforts made by all Dairy Products Division personnel to make such rapid growth possible.

Eastern Milk Producers Cooperative Association, Inc., is a Syracuse-based dairy co-op with 4,300 members throughout Pa., N.Y., Vt., N.H., Mass., Md., Del.

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