half the rate."

the application rate any further

leads to physical coverage prob-

lems, reducing the yield benefits

and consistency of the inoculant.

HiStick 2 has the lowest appli-

cation rate (1.68 ounces per

bushel) of any dry inoculant on

the market. Basically, you get

double the numbers for about

convenience, potency, and per-

formance in one easy step. Just

pour the recommended amount

on seed in the planter box, stir,

and you are ready to plant.

HiStick 2 works well in all

planters, including air seeders

You can use an EnviroPac inocu-

lator to speed things up if you

two package sizes. The 14 ounce

pack will treat ten 50-pound

bags of seed, and the 56-ounce

package will treat forty 50-

pound units of seed, making it

ideal for mini-bulk systems.

HiStick 2 is a ready-to-use prod-

uct that requires no thawing or

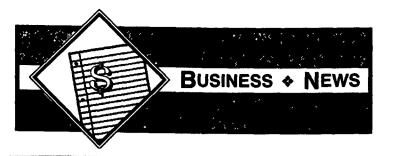
mixing. It will not cause planter

box "bridging."

The new inoculant comes in

are using a bulk system.

For growers, this adds up to







Robert Snow

John Gulya

Pennfield Announces New Hires

LANCASTER (Lancaster Co.) -Pennfield Corporation has announced the addition of Robert Snow as marketing manager for the ag products division and several new dairy feed sales consultants.

Robert Snow, a graduate of Michigan State University, has a bachelor's degree in animal science. Snow has been a district sales manager for Water Right and West Agro in the past five years. His experience includes national marketing manager with Alfa-Laval Agri, Inc. and financing and executing his own

business.

At Pennfield, Snow will be responsible for marketing dairy and horse feeds in Pennfield's territory. He will also be responsible for training new hires.

John Gulya, was graduated from Penn State with a bachelor's degree in environmental resource management. He later got a degree in ag economics. He is a certified crop adviser. Gulya's understanding of dairy is coupled with 10 years of crop management experience. He will be a dairy consultant in the Lancaster area.

New TM Tractors Available

NEW HOLLAND (Lancaster Co.)-Five new TM models in the 90-140 PTO hp segment replace New Holland's Gemini[™] 60 Series tractors. The new TM tractors feature versatile performance, dependable power and smooth, comfortable operation. Plus TM tractors have a number of new design features which provide unmatched performance in this size range.

"Industry statistics tell us more tractors are purchased in this mid-range category than in any other," said Barry Newton, commercial marketing manager for TM tractors. "Row crop farmers use these tractors as utility tractors, while livestock and hay producers often use them as their primary tractor. Their broad appeal is one reason TM tractors are designed with so many new leatures and options to meet the application requirements of many different types of farming operations."

a six-cylinder, 7.5L Genesis™ engine. All are turbocharged, except the TM115, which has been specifically designed to work with a loader.

Maximum torque reserve of up to 48 percent boosts lugging and on-road transport performance.

Three transmission options are available: 18 x 6 Power Command[™], 18 x 6 Range Command[™], and 23 x 12 Dual Command[™]. All transmissions are available with creeper gearing.

To deliver power to the ground, the TM offers a new, Power Command[™] full 18 x 6 powershift transmission on the TM 150 and 165. This tranmission utilizes a patented torquesensing system on the tractor flywheel that allows for fully "adaptive" shifting. The speed of each gear change is adapted according to engine load, engine speed and ground speed for smooth gear changes under all conditions through all 18 gears. New creeper gearing provides a wide range of gears and a lower speed for more versatility.

MicroBio Introduces **Double-Strength Rhizobial Inoculant** peat based inoculants. Reducing

BOULDER, Colo.-HiStick 2, a new, high-powered soybean inoculant with twice the amount of viable rhizobial cells compared to many other inoculants, is being introduced in selected ares in 2000, according to MicroBio Ltd., the manufactur-

"New HiStick 2 contains four billion live rhizobial cells per gram of product," said Aileen Lonergan, marketing manager for MicroBio. "Most conventional soybean inoculants, including MicroBio's popular HiStick, have two billion live bacteria per gram.

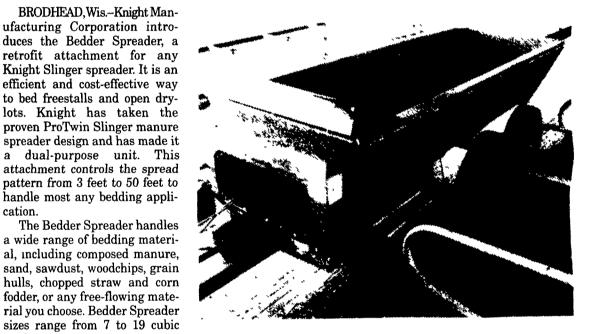
"With HiStick 2, we've doubled the rhizobial count so that growers can take advantage of the higher performance potential with this unique new product," she said. "The higher performance can result in increased yield potential from greater root nodulation potential. Recent tests conducted at Ohio State University and the University of Guelph have shown that a planter-box application of Hi-Stick 2 resulted in significantly

higher yields than the standard inoculant treatment and the untreated check plot."

HiStick 2 is manufactured with an "enhanced vigor" strain of Bradyrhizobium japonicum, a USDA soybean strain. It is packed in a sterile, peat-based protective carrier. The carrier is sterilized to prevent contaminants that could reduce numbers of rhizobia. HiStick 2 also has a patented sticker system for uniform distribution on seed in the planter box. In addition, the unique new inoculant has a seed treatment safener that protects it from most soybean seed treatments

Another advantage of HiStick 2 is its convenience of use. "We have greatly reduced the onseed application rate of the inoculant to the absolute minimum," said Pıran Cargeeg, MicroBio's technical development manager. "At the recommended application rate, all soybean seeds are efficiently covered with the inoculant, and at the same time eliminating any seed-flow problems (e.g., bridging) too often seen with other high volume

Knight Introduces Spreader



Novartis Seeds Launches Grassroots **Biotech Education Program**

GOLDEN VALLEY, Minn.-Since Dr. James Watson and Dr. Francis Crick unlocked the secrets of the double-helix DNA strand in 1953, advances in biotechnology have delivered new sources of insulin, helped control the spread of rabies and reduced the amount pesticides used on America's cropland.

cation.

yards.

become clear that our industry faces a challenge to educate consumers about biotechnology issues," said Ed Shonsey, president and CEO of Novartis Seeds. "Those who oppose biotechnology use misleading statements and emotion to scare people. No more! We are challenging our employees, independent seed

uary 2000 as National Biotechnology Month. Novartis' Shonsey hopes that throughout the month-long celebration, agricultural professionals will use the education program to talk with their friends, neighbors and community leaders about biotechnology.

The five models of TM tractors range from 92 PTO hp to 135 PTO hp and are powered by

Scraper Attachment Features Powerful Disk

FARGO, N.D.-Bobcat Ingersoll-Rand introduced the new Bobcat® Super Scraper skidsteer loader attachment.

The unique, tough-duty tool uses a horizontal, rotating disk to more easily remove ice, compacted snow, mud, commercial tile, and other materials.

Construction contractors and maintenance personnel traditionally use scrapers, blades or buckets for material removal, a process that is makeshift, timeconsuming and laborious. With the Super Scraper, a skid-steer loader operator simply lowers the edge of the disk flat to the

That's the message of a new biotech education program developed by Novartis Seeds.

The 20-minute presentation, called "A Short Course on Biotechnology," traces the evolution of plant breeding from Gregor Mendel's early cross-breeding experiments with garden peas in the 1860s to today's more precise methods aided by geneticenhancement technology.

"In recent months, it has

ground and then drives forward to quickly peel away material.

The Super Scraper attachment mounts quickly to Bobcat skid-steer loaders and can be easily maneuvered to desired project locations-providing quick turnaround time. Cleandealers, and the rest of agricultural community to join us in a grassroots efforts to combat misinformation. We want consumers to know the truth about biotechnology so they can make their own decision based on sound science, not emotional appeals and scare tactics."

The Novartis Seeds announcement comes on the heels of the U.S. Senate's recent adoption of a resolution designating Jan-

up can then be completed with a bucket. The self-sharpening disk is 22 inches in diameter and has an operating weight of 172 pounds. The Super Scraper is designed for Bobcat 553, 751, 753, 763, 773, 863 and 873 skidsteer loaders.

"In the months to come, I hope that every Kiwanıs Club, 4-H group, and Elks Lodge has the opportunity to learn about agricultural biotechnology directly from those involved in the industry," Shonsey said.

To make that vision reality, Novartis Seeds is offering the biotech presentation script and its accompanying Power Point visuals free to all interested agricultural professionals. The CD-ROM package also includes a version of the presentation accompanied by a professionally recorded soundtrack. To receive a copy of the CD-ROM, contact Novartis Seeds by calling (888) 989-4BIO, or download the presentation file from company's web site, www.nk.com.