

The Glencoe SS7200 Soil Saver is a coulter chisel that cuts and incorporates crop residue in single pass primary tillage.

## Chisel Incorporates Residue In Single Pass

EXCELSIOR, Minn. — A rugged yet economical new Primary Mulch Tillage Implement has been introduced by Farmhand, Inc.

The Glencoe SS7200 Soil Saver is a coulter chisel that cuts and incorporates crop residue in single pass primary tillage. In the process, soil is stirred and aerated to improve tilth and promote better root, water, and air movement. Compliance requirements are met and there's more potential for healthier crops and higher yields.

The SS7200 has a weighted main frame that delivers uniform shank penetration, operating strength, and long life. Two hydraulic cylinders control depth

in a series-type lift system.

Three single-axle models of the SS7200 are available: 5-, 7-, and 9-shank models with working widths from 6 feet 3 inches to 11 feet 3 inches. Shank and shovel options allow selective residue incorporation in any crop, and any soil type. Manual depth control allows 1-inch increments in depth adjustment from 4 inches to 12 inches. Optional attachments can be added to incorporate more residue or to leave a more level soil surface.

For more information, contact Farmhand Inc., P.O. Box 1500, Excelsior, MN 55331, or call the Sales Center at (515) 236-6571.

#### Hoffman Offers Wheat Value Package

LANDISVILLE (Lancaster Co.) — Hoffman Seeds has introduced a wheat Value Pak<sup>®</sup>. The palletized package contains 54 units of a single Hoffman wheat variety, while offering farmers up to \$60 in savings.

Farmers can select their Pak from among three varieties — Hoffman 28 Brand, Hoffman 45 Brand, and Hoffman 89 Brand.

Hoffman 28 is a soft red wheat providing maximum straw production. It topped 1990 University of Delaware trials for straw yields at 3.1 tons/acre. Hoffman 28 can be used in place of rye for growers wanting silage with a later maturity.

Hoffman 45 is a fully awned variety featuring high test weights. A medium maturity variety, it tolerates high nitrogen rates and is recommended for areas where poultry manure has caused lodging problems.

Hoffman 89 led the field in 1989 and 1990 trials conducted by the universities of Maryland and Delaware. Its test weights averWE VALUE

Hoffman Seeds wheat Value Pak® contains 54 units of a single Hoffman wheat variety, while offering farmers up to \$60 in savings.

aged nearly 3.5 pounds/bushel more than field averages. Hoffman 89 also offers a broad spectrum of disease tolerance, including leaf rust, soilborne mosaic, and septoria.

#### Don't Cut Silage Crop Early

CHAMBERSBURG (Franklin Co.) — With all the planning, labor, and money that's gone into your silage crop, don't get anxious and cut it too early.

"You planted corn for silage because of the high nutrient yield per acre, and this is another year when you want to get the very highest yield possible," said Bob Francis of Sollenberger Silos

Immature corn produces a lot of soggy, sour silage that's low in feed value. You may get a lot of weight with this green silage, but you will be limiting the total feed value available from your corn acreage.

According to Francis, forages stored above 65 percent moisture will weep, causing loss of nutrients and damage to the silo, the unloader, and feeding equipment. Feeds containing more than 70 percent moisture provide an excellent environment for harmful bacteria growth and production of undesir-

able acids, resulting in lowered palatability. As your silage approaches 80 percent moisture, the total weight stored in your silo nearly doubles. This causes extreme stress on the structure and may result in silo collapse. In other words, a silo that was designed to hold 500 tons of silage would be under extreme stress if you loaded it with 1,000 tons of wet, heavy food

Because of the cool weather in many parts of the East this year, the corn crop in most areas will be a few days to a few weeks late maturing. It will be very easy to cut your feed too early if you are accustomed to begin harvesting according to the calendar, said Francis. Check your crop closely

this year to be sure it is indeed ready. As your corn matures, it increases in total dry weight and most of this increase is in the ear, the very heart of your silage.

The general recommended moisture content for forage being placed in a conventional top-unloading silo, said Francis, is in the range of 55 percent to 65 percent. Forages, especially hay, stored in a bottom-unloading silo should be 50 percent moisture or less. The moisture content for high-moisture grains should be in the range of 25 percent to 32 percent.

Please consult your state extension service or the "Silo Operator's Manual" from the International Silo Association.

# Ecogen Develops IPM Programs

LANGHORNE (Bucks Co.) — Integrated pest management (IPM) becomes an increasingly important concept, because each year insects become increasingly difficult to control with standard chemical regimens.

It is estimated that as many as 500 species of insects have shown resistance to currently used insecticides. As the resistance increases, the risk of control failure also increases. It can make the convenience of single chemical "wipe 'em out" management a very expensive proposition.

"Nothing will open your eyes faster than watching a Long Island, N.Y. potato grower trying to control the onslaught of resistant Colorado potato beetles with a propane burner because standard chemical controls no longer work," said Don Jackson, director of marketing/sales for Ecogen Inc.

Resistance among lepidopteran and coleopteran insect species has become a serious problem for many growers throughout the nation.

Mark Otto of Agribusiness Consultants, Lansing, Mich., said, "If you wait to employ IPM programs because resistance has become a problem . . . you've waited too long. Many growers in our area no longer practice 'resistance management.' Now we just try to man-

age what is resistant."

Jackson said, "Ecogen is constantly searching for alternatives to

standard chemical management practices. Through Ecogen bioengineering research, we have developed superior strains of Bt (Bacıllus thuringiensis). Condor® Cutlass® and Foil® bioinsecticides are designed to play an integral part in IPM programs when alternative insecticides can achieve the desired control of pests and break the buildup of resistance."

In addition, Ecogen has recently invested millions of dollars to acquire assets and pest control technologies that will play vital roles in tomorrow's IPM programs.

"We will soon be able to provide a wide range of alternatives. For example, we will soon market beneficial nematodes which are purely insecticidal, hyperparasitic fungi which kill other fungi such as powdery mildew, and pheromone technology which uses natural odors to disrupt mating processes," said Jackson.

"It is important to note that Ecogen does not promote the use of biologicals at the exclusion of other pesticides. To recommend this would be to fall into the same trap that has plagued the industry for years. Instead we recommend the use of biologicals as a part of IPM programs, in partnership with standard chemicals," he said.

For more information, contact Ecogen Inc., 2005 Cabot Blvd. West, Langhorne, PA 19047, (215) 757-1590.

### Pump Is On-Demand System

INTERCOURSE (Lancaster Co.) — From the makers of the world famous Rife ram comes a

new generation of energyless watering systems, with the same quality and performance that has

Messick Farm Equipment Promotes Gainer

ELIZABETHTOWN (Lancaster Co.) — Jay Gainer, 32, Manheim has been promoted to general manager of Messick Farm Equipment, the company announced recently.

According to Gainer the posi-

According to Gainer, the position of general manager will entail that all departments in the farm equipment store are run more efficiently. He will manage about 35 employees in the store, which serves about 4,000 customers in the region.

Gainer, who recently held the position of parts manager, worked in several positions for 15 years at Messick.

Messick, in business for 39 years, markets a wide range of farm equipment from Ford New Holland, Case IH, Kubota, and other manufacturers. They are located at the Rheems exit of Rt. 283, and can be reached at (717) 367-1319.





Jay Gainer

been associated with Rife rams since 1884.

The Rife pasture pump is a device that lets livestock pump their own water. This on-demand system can be used to draw water from a spring, pond, stream, or a shallow well to a maximum depth of 26 feet over a distance of 126 feet horizontally.

The pump is simply mounted on a timber platform held onto the ground by four stakes. These stacks are easily removed to faciliate easy relocation of the pump. This mobility comes in handy for those practicing rotational grazing.

The Slingpump is a selfsupporting system for pumping water. The power to drive the pump is provided by the flow of the water. This water can then be used at homes, in irrigation, watering livestock, and in

The pump is completely mechanical and operates without electricity or fossil fuels. All parts are non-corrosive and designed to withstand a high degree of stress.

No previous experience or special tools are required to install and operate the system.