Farm Business News

New corn starter available

ATLANTA, GA. — A new corn starter, USS Vertagreen Plus 4, will be available to growers in all major corn-growing states in the spring of 1982. With a 9-40-5 N-P-K analysis, the new starter guarantees 5% Sulfur (S), 2% Magnesium (Mg), 1% Zinc (Zn) and 0.3% Boron (B).

Produced by USS Agri-Chemicals Division of United States Steel at its recently expanded and modernized Cherokee, Ala., facility, the new starter is an improvement over USS Vertagreen 15-40-5 Powr Prils with 1% Zinc, which will continue to be available.

USS Vertagreen Plus (9-40-5) was developed in response to the need for sulfur and boron as well as zinc in many soils. Low sulfur levels have become pronounced in recent years since clean air standards and pollution control have reduced air-borne sulfur.

Sulfur deficiency sympthoms are very similar to nitrogen deficiency–pale yellow or light green leaves. Sulfur gives a healthy, deep green color to the plants and also contributes to healthier root development and vigorous early season growth.

High corn yields also require more boron. Even though crop removal of boron by corn is small, an adequate supply must be available throughout the entire growing season. (Caution must be exercised so that boron does not come in direct contact with the seed.

Zinc is also extremely important and is said to be the most limiting micro-nutrient for corn production. High phosphate levels especially require the application of zinc. Zinc deficiencies in corn usually appear early in the season under cool wet conditions.

Suggested Readings

Scours report available

KALAMAZOO, Mich. — A Scours Prevention Management Report explaining the different types, causes and treatments of various scours conditions in livestock is now available from TUCO, Division of The Upjohn Company.

Bacterial, viral and nutritional scours conditions are explained, as well as coccidiosis and swine dysentery (bloody scours). Antibiotic therapy is covered — including information about resistance, mode of action and the effectiveness of antibiotics used to treat scours conditions. Use of bacterin vaccinations and helpful management steps are also discussed.

For a single copy of this scours report, or for more information, contact: Scours Prevention Management Report, TUCO, Division of The Upjohn Company, 9823-190-45, Kalamazoo, Michigan, 49001.

Pay attention to cleanliness in engine rebuild

LANCASTER — With high interest rates and cash flow problems blocking many new equipment purchases, more attention is being directed at repairing existing machinery to prolong its useful life.

One area of repairs that is receiving more such attention is the major rebuilding of engines.

And after a major rebuild, engine failure may occur within a short time. Usually, the problem can be attributed to a lack of cleanliness in the rebuild, according to Roger Higgins, Service Manager, Engine Division, Allis-Chalmers Corp.

Most common cleanliness problems can be traced to one of four areas: lubricating systems, cooling system, fuel system and repair parts.

LUBRICATING SYSTEM

Any engine repair must have special attention paid to the life line of the engine. If you are overhauling an engine it must be for some reason. If it is a major rebuilt after long hours a considerable amount of sludge, varnish, and general wear materials will have been accumulated throughout the lube system.

Of course, a major engine failure will spread failed material throughout the same path. The only sure fire system to completely purge the oil path of this unwanted intruder is by thorough cleaning. Start by removing all plugs from oil galleries and passageways in the cylinder block and head. This may not be as simple as it sounds since most manufacturers use sealant on the plugs to improve sealability.

Heat is the only sure fire means of loosening the plugs; either a torch or steam. After removing the plugs the passageway should be cleaned by one or more of the following: steam, high pressure air, rodding, wire brushing and reamers. The final step should be blowing out with clean dry air and applying a light coat of oil before reinstalling the plugs.

The next area to clean should be the oil pump, internal and external pipes and tubes. The same techniques as used for the block and head apply.

Finally, one of the biggest traps of foreign material is the lube oil cooler. The tubes and baffles provide a natural net for sludge, varnish and metal particles. Cleaning of the heat exchanger may be quite difficult depending on its particular design. The removeable bundle type is the easiest to clean in a tank. A one-piece design requires more time an patience; it may even require replacement if all foreign material cannot be completely flushed out.

After the entire oil system is cleaned, all openings should be immediately plugged to keep the system clean.

COOLING SYSTEM

Most of the suggestions which apply to the lube system also apply to the cooling system.

Remove plugs and clean with air or steam. Pay particular attention to "dead spots" around thermostats, filters, volutes, etc., which may have trapped rust, sludge, and solid materials. This is also a good time to check and inspect the thermostat and water pump.

Be sure to inspect and clean all "o" ring and cylinder liner seating areas. Could they have been involved in the reason the engine is being rebuilt? In any case, inspect, check, test, and repair or replace if necessary.

Radiators or heat exchangers should be thoroughly cleaned and inspected. If your facilities are not large enough, contract with a good radiator shop for the service. Again, after cleaning and repair or replacement, plug all openings to insure that the cleanliness remains.

FUEL SYSTEM

The fuel system is probably the simplest to clean, but it is probably also the easiest overlooked. Pipes and tubes, both before and after the filters, should be checked and cleaned. Don't forget the nooks and crannies in the filter header.

This is also a good time to drain and flush the fuel tank. Of course, if fuel pump overhaul is a part of the repair program, the usual care for cleanliness must be observed. Use clean fuel for cleaning and reassembly. Beware of using rags which could deposit lint in the system.

Don't forget to clean the lubrication passages. Surgical cleanliness may be the goal to strive for. Once again, plug or cap all openings.

REPAIR PARTS

Most repair parts are received from the factory or a repair parts operation individually packaged and preserved. This does not mean they are ready for immediate installation in your engine. They should be cleaned of whatever preservative is on them.

Remember during storage this material may gel or harden. It also will attract small amounts of dust and dirt which adhere immediately to the preservative. Use a proper cleaning solution; solvent, steam, air, oil, etc., before installation.

Finally, install the parts as soon as possible after cleaning. Use a proper lubricant or coating in accordance with the manufacturers recommendations.

In summary, we believe that many "comebacks" on engine repairs can be eliminated by taking a step-by-step approach to the cleanliness of the engine in the three major systems: oil, coolant, fuel, and by properly handling the repair parts.

Martin receives award

ATLANTA, Georgia — Neal P. Martin, associate professor of agronomy at the University of Minnesota, received the 1982 CIBA-Geigy Award in Agronomy recently at the American Society of Agronomy annual banquet.

The award is given in recognition of outstanding service to one or more of the agronomic professions.

Martin is presently involved in Extension forage and research. His Extension programs are directed at forage production and utilization with special emphasis on using farm demonstrations as a classroom for educators, growers and agribusiness suppliers. Much of his research effort is directed toward influencing legumes into unimproved grass pastures without tillage.

He received the Outstanding Service Award from the Minnesota Forage and Grassland Council (1979) in recognition of his service to Minnesota's forage industry. He serves on the American Forage and Grassland Council board of directors.