

Sidedressing fertilizer offers benefits

DE KALB, II. — Sidedressing fertilizer refers to the application of fertilizer to row crops after the plants are established. The fertilizer is placed between the rows in a fashion that minimizes destruction of plant roots. Sidedress application can offer advantages to the grower, including delayed application, deeper placement, and increased efficiency.

With modern application methods almost any of the common fertilizer materials can be used. The fertilizer materials applied by sidedressing have traditionally involved liquid manures, ammonia gas, and concentrated liquid fertilizers. Dry granules have been applied experimentally with a forced air carrier system. However, this practice has not yet reached common usage.

The most typical element applied has been nitrogen. This is probably due to its high mobility in the soil, allowing it to move from the row centers to the plant roots. Sidedress is definitely possible for the other fertilizer elements also.

The fertilizer material chosen for sidedressing determines depth of placement. Deeper placement requires more power and essentially becomes a tillage operation subject to soil type and moisture guidelines.

For example, ammonia gas should be placed 5 to 10 inches deep. For best results, soils should be loose and dry enough to seal quickly trapping the gas after application. Heavy, poor structure soils may not only lose ammonia gas, but may also crack open and allow severe moisture loss. Inter-row tillage provided by sidedressing has also resulted in the fracturing of compacted soil layers, aiding in both water and root penetration for certain soils.

Liquid fertilizers can be dribbled onto the soil surface or knifed into the soil. Most common liquid nitrogen solutions and liquid manures contain both ammonia and urea. Leaving these materials on soil surfaces, especially if soils are alkaline, can result in severe N loss due to volatilization.

Some efficiency minded growers are applying liquid solutions with their row cultivators. Pumping liquid behind the outside cultivator shovels eliminates a special sidedress trip and results in placement 2 or 3 inches deep and 5 to 7 inches from the row. This is ideal placement of the less mobile mineral elements such as phosphorus.

Placement of fertilizer to a depth greater than 3 inches can be a real

advantage should the surface soil become dry, since fertilizer uptake requires soil moisture. Farmers using minimum tillage methods may find deeper placement valuable as a way of avoiding surface accumulation of nutrients.

Sidedressing delays part of the fertilizer application. This allows a grower to delay expenditures and save on operating interest as well as balance his fertilizer application with actual plant stand and moisture

conditions. In wet springs the elimination of a pre-plant fertilizer trip can result in earlier planting when the weather clears. Delayed application also avoids driving on wet soils which may cause wheel track compaction and uneven seed emergence.

Delaying fertilizer application is unwise, however, if early plant growth suffers. Thus sidedressing works well for managers using starter fertilizer or applying part of their fertilizer in the fall. The later

application increases uptake efficiency. Material has less time to "tie-up" before actual plant uptake occurs. Farmers can also eliminate extra nutrient application to compensate for losses from leaching and denitrification.

The advantages of sidedressing, in most cases, outweigh the disadvantages. Soil and moisture conditions, actual nutrient needs, and application flexibility will determine how it will fit individual situations.

Grain meeting on June 25

EPHRATA — Penn Ag Industries Association, Ephrata, will be holding its annual grain meeting at the Sheraton-Conestoga in Lancaster on June 25. Featured speaker will be Merrill Phillips, Manager of Ingredient Purchasing for the Central Soya Company, Inc. Fort Wayne, Ind. He will discuss "Assessing Your Buying Abilities."

Phillips holds a B.S. degree from the University of South Florida. He is responsible for the purchase of all major and micro feed ingredients for over 30 manufacturing facilities nationwide; and handles risk management of cash feed ingredient

positions, commodity futures, and market-related activities for the domestic feed division.

The banquet will begin at 6:30 p.m. Cost per person is \$15.00. Anyone interested should contact Penn Ag at (717)-733-2238.


Hydroponics conference set

UNIVERSITY PARK — On June 5-6, there will be a Commercial Hydroponics Conference at Penn State's Keller Conference Center at University Park. The conference is sponsored by The Department of Horticulture and the Cooperative Extension Service.

Topics to be covered at this meeting include: Insects, Diseases and Nutrition of Hydroponic


Vegetables, Types of Hydroponic Systems, Market Development, and Crop Production. The registration fee is \$35.00, before May 31. After May 31 the fee is \$40.00 per participant.

If you are interested in receiving a registration form for the Conference, contact the Penn State Extension Service in York County. Phone - 757-9657.



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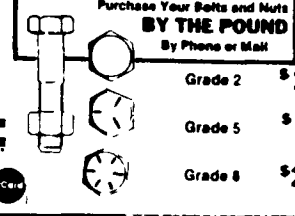
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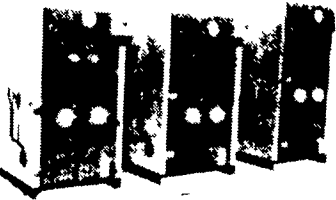
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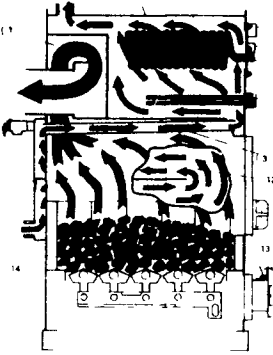
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