



## **ROTAVATORS IN SPRING 'NO-TILL' OPERATIONS HOW TO DRY OUT & WARM UP WET, COLD SOIL**

### **Let's Talk**

One of the biggest problems of 'No-till' planting is that many soils are very slow to dry and slow to warm up especially when the soil surface is covered with residue. This problem is further compounded when the soil is saturated from winter snows or rain and is then followed by a late, wet and cold spring.

Presently these soil problems are being attacked by no-till practitioners with coulters, both fluted and plain, or with finger trash wheels mounted in front of the planter unit. Most of these strip tillage devices are designed to disturb or remove the residue in the row area. Additionally, some are designed to loosen the soil in the seeding zone in order for the soil to dry out and warm up.

In many instances, if the soil moisture is not too much, row cleaners work well because the aeration allows the soil to warm quickly and plant well. However, if soil moisture is fairly high, this operation done immediately in front of the planter unit means that the planter must work in wet soil. Planters do not plant well in wet soil. Wet soil packs up, it is difficult to move wet soil to close the seed trench to get good seed-to-soil contact, and very probably soil packed and worked wet will get hard as it dries out, making it difficult for the plant to emerge. This can result in a very poor stand.

Rotavators may be used to achieve the same effects of loosening or opening dense soils, disturbing residue, and allowing wet soils to "air" out, with an important difference from planter mounted units. The difference is that planting does not occur immediately in wet soils, but the operator can wait until the soil is sufficiently dry so that the planter can plant well. The delay in planting may be as little as 2 hours or more than 24 hours. This is a key difference which in wet soils may very well be the difference between a good stand and a poor stand; a good crop or poor crop.

Rotavating the wet cold ground sometime ahead of the 'delayed' planting has a number of important advantages.

- A. The soil has dried sufficiently, and warmed up so that the planter is always planting in good soil conditions.
- B. The soil is less likely to compact around the seed, making for better germination; better and more consistent yields.

Results from Rotavating ahead of 'No-Till' planters and 'No-Till' drills to dry out and warm up the soil in the spring of 1993 were fantastic. The most difficult soils imaginable produced good yields which would not have been possible relying on pure 'No-Till'. 'No-Till' acceptance depends on the results it delivers - to the yield and the bottom line. Rotavating wet cold ground and delaying planting until the planter or drill will work well dramatically improves the final result.

Ask Guy for specific information on those 'No-Till' farmers who used a Rotavator ahead of their no-till planting/drilling equipment. Most of these farmers will not again wait for the ground to 'naturally' dry out and warm up. They saw the results they wanted to see at a low cost per acre.

FOR ADDITIONAL INFORMATION ON HOW TO GET THE BEST PERFORMANCE FROM YOUR ROTAVATOR OR HOW ROTARY TILLAGE CAN BEST FIT YOUR NEEDS CONTACT GUY MACHINERY.

**GUY MACHINERY – 14213 WASHINGTON ST - WOODSTOCK, IL. 60098  
PHONE 815-338-0600 - FAX 815-338-2525  
E-Mail: [guymachinery@yahoo.com](mailto:guymachinery@yahoo.com)**