HOWARD®

Let's Talk

Stones Rocks & Stumps

Rotavators have been used for many years throughout North America and the world where working with stones and rocks is a way of life; areas which have always meant higher maintenance costs on all tillage tools.

Contrary to the general belief that Powered Rotary Tillage will not work in stony soils, it has been proven that Howard Rotavators, used correctly and with common sense, can handle stones and stay within a reasonable cost program.

When working in stones and rocks, several things must be appreciated in order to minimize maintenance cost.

1 / Soil Type

Stones in light ground will be less resistant to the rotating blades and will move through the soil when struck. Whereas stones in heavy clay soils tend to stay in place and are more difficult to to dislodge.

2/ Moisture Content

Higher moisture conditions are also easier on the machine than dry compacted soils.

3/ Tillage Depth

Never go deeper than necessary to produce the correct seedbed. The deeper you Rotavate the more stones you will encounter.

4/ Rotor Speed

High rotor speeds increase the blade impact on the stone. Always use the lowest rotor speed possible to produce the required finish.

5/ Tractor Forward Speed

The faster the forward speed, the sooner the stone will be clear of the rotor. The forward rotating blades tend to climb over large stones as the smaller stones are pushed out to the rear.

High rotor speeds and slow forward speeds only aggravate the situation, since the blades are trying to cut up the stones as they are struck many times before they finally clear the rotor.

6/ Slip Clutch

The slip clutch should be adjusted to drive the Rotavator through the soil and small stones without slipping, but should slip on impact with a large immovable object.

The clutch should be checked and adjusted frequently to absorb shock loads.

7/ Double Flanges

Optional double flange kits are available and are offered to help protect the single flanges from bending and the blade bolts from breaking when working in large stones, rocks and stumps.

The occational stone should be no problem for the standard Rotavator, but double flanges are definitely recommended for very rocky conditions.

8/ Definition of Stones and Rocks

We define stones as fist size 4" dia. to head size 10" dia..

Rocks are larger than 10" diameter.

Stones will usually move when struck by the blades so that the impact is reduced. In the case of rocks, they are usually immovable with tillage tools and the machine is required to ride over them. Here again, providing the field is not a complete rock pile, the combination of a slow rotor speed and a fast forward speed will allow the Rotavator to ride over the rock as it is encountered. The name of the game is to strike the rock as few times as possible with the rotating blades. The same would apply to stumps. Rocks and stumps that are visible, or in a known location, should obviously be avoided. The Rotavator should be raised hydraulically on the three point linkage to clear the obstacle.

9/ To Bury or not to Bury

The adjustable rear shield will help control the amount of stones left on the surface. If you wish to bury the stones then the rear shield should be lowered. If you choose to pick up the stones, then raise the rear shield and most of the stones will finish up on the surface.

As with any tillage tool, large stones and rocks that are on the surface should be removed regularly.

A HOWARD Rotavator is the most versatile surface tillage tool on the farm, because it is the most adjustable. The adjustability of the Rotavator allows for controlled tillage. The best tillage is the least tillage; just enough to meet the needs of the crop that will follow. Define the tillage objective then adjust the Rotavator for optimum one-pass performance.

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 - P.O. BOX 5 - WOODSTOCK, IL. 60098

PHONE 815-338-0600 - FAX 815-338-2525