

Technical Bulletin - Multivator Granular Fertilizer Attachment

The Multivator granular fertilizer attachment is available in three hopper sizes:

Hopper width	Weight empty	Hopper capacity*	Gate openings
40"	145 lb	350 lb	6
60"	170 lb	500 lb	10
80"	200 lb	650 lb	12

* Based on medium density granular fertilizer

The fertilizer attachment is mounted to the Multivator toolbar. The unique design of the toolbar allows the fertilizer kit to not interfere with the three-point hitch mounting or the tiller heads.

The fertilizer attachment is power driven from the tractor. A series of three pulleys and two standard V-belts power the unit.

The agitator in the fertilizer hopper is driven from a pulley located on the hex drive shaft of the Multivator. The agitator distributes material through downspouts that discharge immediately in front of the tiller blades. Fertilizer can then be worked into the soil with the rotating blades.

A single shut off lever controls the gate openings in the fertilizer hopper. Gate openings can be capped off when not in use with plastic plugs that are provided with each kit.

The fertilizer gate opening, the agitator speed, the number of downspouts used and the tractor forward travel speed determine the application rate. Remember that any change in travel speed will affect the rate of application. If you slow down the tractor forward speed, the rate of application will increase. If you speed up, the rate of application will decrease. For example, if you are applying 200 pounds per acre at 3 mph and then slow down to 2 mph, the rate will increase at $\frac{3}{2} \times 200 = 300$ pounds per acre. Increasing to 4 mph will reduce the rate by $\frac{3}{4} \times 200 = 150$ pounds per acre.

Calculating Application Rate

Use the following procedure to determine the application rate in pounds per acre per downspout. Try to keep the downspouts as vertical as possible to insure free flow of the fertilizer.

1. Determine the ground speed that you will be operating the Multivator at and adhere to this speed while operating and during calculations. Know the tractor engine RPM that will maintain a constant 540-RPM at the PTO.
2. Close off all gate openings except for one. Attach a bag or other suitable container under the open downspout to catch the material. Put enough fertilizer in the hopper to conduct the test.
3. Mark out a distance of 130 feet. Engage the PTO and drive the tractor and Multivator this distance.
4. Weigh the amount of fertilizer caught in the bag and multiply by the numbers shown in the chart below for the row center:

<u>Row Centers</u>	<u>Multiply By</u>
66"	61
60"	66
54"	74
52"	77
50"	80
48"	83
46"	87
44"	91
42"	95
40"	100
38"	105
36"	111
34"	118
32"	125
30"	133
28"	143

5. For other row widths less than 28" divide the row width into 40 to determine the multiplier.
6. If the number of pounds delivered is not the desired amount, move the lever to increase or decrease the size of the gate opening. Run the 130 foot check procedure again until the desired amount is obtained. Make a note of the graduation mark on the scale and record for future reference.
7. The rates given are based on one downspout per row or per tiller head. Keep the downspout tubes as vertical as possible to ensure a free flow of fertilizer.