



Applicator Drip Tube

Directions for Use and Calibration

The Launcher applicator drip tube is designed for use with Launcher Liquid Soybean Inoculant packaged in a 170 fluid ounce container. The tube is designed to dispense Launcher Liquid Soybean Inoculant into a seed transport auger. It consists of an on/off valve as part of a threaded cap, a length of clear tubing and a metering clip.

Steps:

1. Place the container of Launcher on a flat surface so that the front product label is facing up.
2. Open the perforated area to expose the self-dispensing spout. Pull the spout through the container opening and replace the opening flap securing the neck of the spout. This will permanently position the spout.
3. Remove the cap from the spout to expose the foil seal.
4. Remove the foil seal and attach the threaded valve end of the drip tube to the spout. Ensure that the valve is in the OFF position prior to moving the Launcher container.
5. Hang the container in the area for use by the strap located diagonally from the dispensing spout.
6. The dispensing hose should be fully extended for optimum use. The hose may be cut to desired length.
7. Utilize the ON/OFF valve to begin dispensing Launcher Liquid Soybean Inoculant.

(Calibration information on reverse side)

Primary Use and Calibration Process

The primary means of use is to set the metering clip and start/stop the flow of Launcher by use of the ON/OFF valve.

1. Determine the transport auger seed flow by operating the auger at the intended capacity (generally not more than 50% of auger capacity) for 1 minute. Collect and weigh the seed dispensed.
2. Determine the amount of Launcher Liquid Soybean Inoculant required to treat the volume of seed from Step 1 above using the following formula:

$$\frac{\text{Weight of seed dispensed}}{100} \times 3.4 = \text{Fluid ounces of Launcher to dispense during 1 minute of operation}$$
3. Utilize the chart on the right to identify the initial setting of the metering clip.
4. With the clip fully open, begin to depress the clip, counting the "clicks" to arrive at the proper setting.
5. It is recommended that the flow of Launcher be verified by opening the valve for 1 minute and collecting the fluid dispensed in a measuring cup. The amount collected should match the volume identified in Step 2 above.
6. If necessary, adjust the metering clip to increase or decrease the flow and retest. The material collected may be placed back in the Launcher container for immediate use.
7. Due to the limitations of the clip settings, it may be necessary to adjust the seed flow rate of the transfer auger to obtain the proper application rate.
8. Treat seed by beginning the seed flow, then opening the ON/OFF valve. Close the ON/OFF valve to stop the process.

Seed Flow / Minute		Launcher Use Rates
Lbs.	Bushels	fluid ounces / minute
60	1.00	2.0
120	2.00	4.1
180	3.00	6.1
240	4.00	8.2
300	5.00	10.2
360	6.00	12.2
420	7.00	14.3
480	8.00	16.3
540	9.00	18.4
600	10.00	20.4
660	11.00	22.4
720	12.00	24.5
780	13.00	26.5
840	14.00	28.6
900	15.00	30.6

USING THE VALVE AS THE ON-OFF CONTROL

Notch Setting from Outside Edge of Clip	Launcher Flow Rate in fluid ounces per	
	10 sec.	minute
3 clicks	15.1	90.5
4 clicks	6.0	36.0
5 clicks	1.9	11.5
6 clicks		1.54

USING THE CLIP AS THE ON-OFF CONTROL

Valve Setting	Launcher Flow Rate in fluid ounces per	
	10 sec.	minute
3/4	11.4	68.3

Alternative Use and Calibration Process

It is possible to utilize a standard setting of the ON/OFF valve, starting and stopping the flow of Launcher with the metering clip.

1. Complete Steps 1 and 2 above.
2. Set the metering clip to completely closed.
3. Open the ON/OFF valve to a 3/4 position.
4. Open the clip to allow Launcher to begin flowing and then close the clip.
5. Re-open the clip and collect Launcher in a measuring cup.
6. Compare the amount collected to the chart above. Adjust the valve setting as required to increase or decrease the flow of Launcher.
7. Due to the limitations of the valve settings, it may be necessary to adjust the seed flow rate of the transfer auger to obtain the proper application rate.
9. Treat seed by beginning the seed flow, then opening the metering clip. Close the clip to stop the process.