



# GENESIS

## CALIBRATION MANUAL

### Variable Clutch System





## Introduction to Calibration



### Seed Size and Rate Calibration

To insure the proper use of your RTP Outdoors GENESIS No-Till Drill, seed size and rate calibration is necessary before every use. Seed sizes & blends vary from year to year and among brands of seed, meaning the calibration settings will always change. The settings presented in the SEED SETTING CHART are given as a starting point and are not intended to be used in lieu of the calibration process.



### Seed Depth Setting

Setting your GENESIS No-Till Drill's planting depth is vital for your seed's ability to germinate and grow properly. The depth the planting cutters will go into the ground vary based on soil type, soil condition, and moisture level. The settings presented in the SEED SETTING CHART are given as a starting point and may vary due to local conditions



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**#1** Undo the black knob from either side of the calibration tray. Pull the calibration tray out, flip it over 180° and re-insert it onto the threaded posts.



**#2** Open the lid of the seed box and put in your seed of choice. Make sure you fill every seed cup with enough seed for the calibration. If one of the seed boxes runs out of seed during this process, the calibration will be inaccurate. Always check the seed cups before and after the calibration.



**#3** Using the SEED SETTING CHART to get your base setting for the seed you will be planting. On the right side of the Genesis, you will adjust the Gate Opening number from 0 - 3 by loosening the knob, moving the bar to the correct number, and tightening back the knob.





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**#4** On the left side of the machine is the Variable Clutch System that controls your rate. To adjust this setting, loosen the 2 knobs on the top of the clutch system box and then rotate the larger knob on the side of the box until you are lined up on the desired number. Tighten the 2 knobs on top to lock in your setting.



**#5** After verifying that your settings are correct, seed is in all of the seed cups, and the calibration tray is installed properly, use a piece of tape or marking as a set position on the drive wheel.



**#6** Slowly spin the drive wheel counter clockwise until you start to hear seed dumping into the calibration tray. Now spin the drive wheel counter clockwise 26 times, using your tape or marking as a position reference.



**#7** Carefully remove the calibration tray and empty all of the seed into a box or bucket. We recommend dumping into a larger box first so you don't lose seed on the ground.



**#8** Weigh your seed in pounds on a scale and multiply that number with your Genesis Model Multiplier. Always remember to zero your scale to the vessel you are using to weigh your seed.\*\*\*



Genesis Model	Multiplier
3'	136
5'	85
8'	52
10'	42

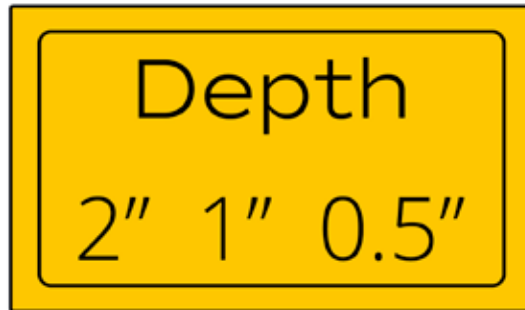
**#9** This will give you your pounds per acre.

$$(\text{Seed Weight in lbs.}) \times (\text{Multiplier}) = \text{Pounds Per Acre}$$

**#10** Depending on this value, you may want to increase or decrease your seeding rate. Adjust the Clutch System setting and repeat Steps 2 thru 9. We recommend changing this setting in ½ number increments up or down, then smaller adjustments if needed there after. Once you are satisfied with the seed rate calibration. Make sure you install the calibration tray back to the seeding position and re-install the knobs.

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**#11** With the calibration tray re-installed to the seeding position, now it is time to set the planting depth of the machine.



**#12** You will need to change the depth setting according to the Seed Settings Chart. To change the depth setting, remove the pins on each of the packing wheels and re-insert the pin in the correct hole marked with the corresponding depth.



**#13** You will want to adjust the Top Link so that the machine is in a level position. We will use the Top Link to make finer adjustments to the planting depth.





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**#14** Now run the drill forward 10' to 15'. Stop and inspect the depth the seed is being planted by using a knife or small card.



**#15** Once you have determined whether the drill needs to go deeper or shallower, we will use the Top Link to make our fine adjustment. To go shallower, lengthen the Top Link out. To go deeper, shorten your Top Link in. If there is not enough adjustment in your Top Link, you may need to change the Packing Wheel depth setting.



**#16** Repeat Steps #14 & #15 until the desired planting depth is achieved.



# Variable Clutch System Seed Settings Chart

		Variable Clutch Setting Number/ Pounds Per Acre										
Seed	Gate Setting	0	1	2	3	4	5	6	7	8	9	10
Soybean	2					54	68	96	119			
Clover	0	1.1	5.5	18								
Corn	2		5.8	12.2	22.1	29.7						
Switchgrass	0	1.5	5.6	14.4								
Corn (22 ½ Rows)	2			18								
Sorghum (22 ½ Rows)	0		7	16.5								
Eagle Seeds Broadside	2					62	85	95	120			
Eagle Seeds Buffalo Blend	1.5					62	85	95	120			
Real World Deadly Dozen	1					45	55					
Purple Top Turnips	0		5	15								
Harper's Blend	1					47.5						
Eagle Seed's Fall Blend	1				30							
Austrian Winter Peas	1					45	55					
Alfalfa	0			17								

\*\*\* All of these settings are intended to be used as a starting point for the calibration process. Your results may vary\*\*\*