## **SMARTBOX®** Calibration Guide

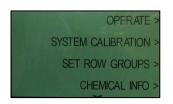
#### Getting Started:

- Read and follow the pesticide label directions as to the type of PPE recommended. Number calibration bottles to correspond with the number of planter rows.
- Confirm that the scale used for weighing the catches is set to weigh grams and placed on a flat surface located out of the wind for proper measuring.
- Measure and record the tare (empty) weight of the empty catch bottle.
   Install a catch bottle under each meter and discharge opening.



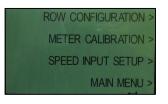
#### Step 1:

From the Main Menu select **SYSTEM CALIBRATION.** 



### Step 2:

Select METER CALIBRATION.



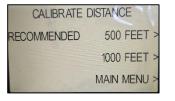
#### Step 3:

Using the arrow keys, scroll to select chemical being used during operation. Press **ENTER**.



#### Step 4:

Choose the desired calibration distance. Options are 500' or 1000' (see chart below for distance).



#### Step 5:

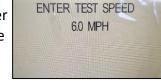
Using the arrow keys, enter the target catch amount corresponding to the desired application rate. The controller



will be preset at 42.5 grams / 500' and will allow values between 5.0 to 300.0 grams / 500'. See chart on next page. Press **ENTER** to continue.

#### Step 6:

Using the arrow keys, enter the test speed equal to the expected planting speed. For example, if the



expected average planting speed is 5.5 mph, then scroll until the test speed is set at 5.5 mph. Press **ENTER** to continue.

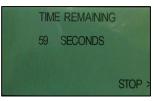
#### Step 7:

Press **START** to start catch test.



#### Step 8:

The **TIME REMAINING** value that first appears indicates the seconds required to plant 500 or 1000 feet of a row at the



selected ground speed. The catch test will end automatically once the **TIME REMAINING** value has counted down to zero.





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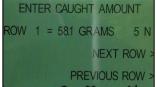
#### Step 9:

Catch test completed. Press **ENTER AMOUNT** to enter catch amounts (or press **START** to start another catch test).

#### **Step 10:**

Weigh the caught amount for each row (not including the tare weight). A sample form to record the catch weights and the N and P number is included at the end of this section. Using the arrows, enter the caught amount for each row. Press **NEXT ROW** to move to the next row. Once a catch amount has been entered for each row, the controller will automatically advance to the next screen.

# CATCH TEST START > ENTER AMOUNT > MAIN MENU >





MAIN MENU

#### **END:**

If all catch amounts were within 5% of the target weight, then press **MAIN MENU** to **SYSTEM CALIBRATION SET** screen. If any catch weight was outside of the 5% calibration variance, press **YES** and conduct another catch test. To complete another catch test, return to Step 7 and repeat.

#### **Meter Calibration**

Meter calibration is performed to adjust each meter to release an accurate insecticide rate. The meter calibration routine must be performed on all meters at the beginning of each season. In addition, any time a replacement meter is installed, that row must be re-configured and its new meter calibrated. For best results, growers should recalibrate after the first set of transfer containers are empty, when application rates are not accurate and/or if a different chemical will be used.

| Used | Product         | Targeted<br>Rate/1000 ft | Target<br>Catch<br>(500') | Recommended<br>Catch Range (500 ft<br>Calibration Distance) | Target<br>Catch<br>(1,000') | Recommended<br>Catch Range (1,000 ft<br>Calibration Distance) | Rate<br>LB/AC |  |
|------|-----------------|--------------------------|---------------------------|-------------------------------------------------------------|-----------------------------|---------------------------------------------------------------|---------------|--|
|      | Aztec® 4.67G    | 3.0 oz                   | 41.5                      | 40.4 - 42.5 grams                                           | Use <u>50</u>               | <u>0'</u> Catch Only                                          | 3.27 lb/ac    |  |
|      | Aztec® HC       | 1.5 oz                   | Use <u>10</u>             | 00' Catch Only                                              | 41.5                        | 40.4 - 42.5 grams                                             | 1.63 lb/ac    |  |
|      | SmartChoice® HC | 1.7 oz                   | Use <u>10</u>             | 00' Catch Only                                              | 46.1                        | 44.8 - 47.3 grams                                             | 1.80 fb/ac    |  |
|      | Force® 3G       | 4.0 oz                   | 55.3                      | 53.9 - 56.9 grams                                           | Use <u>50</u>               | <u>0'</u> Catch Only                                          | 4.40 lb/ac    |  |
|      | Force® HL       | 1.3 oz                   | Use <u>10</u>             | 00' Catch Only                                              | 36.9                        | 33.9 - 38 grams                                               | 1.40 lb/ac    |  |
|      | Counter® 20G    | 6.0 oz                   | 82.9                      | 80.8 - 85.0 grams                                           | Use <u>50</u>               | <u>0'</u> Catch Only                                          | 6.50 lb/ac    |  |
|      | Thimet® 20G     | 6.0oz                    | 82,9                      | 80.8 - 85.0 grams                                           | Use <u>50</u>               | <u>O'</u> Catch Only                                          | 6.50 lb/ac    |  |
|      | DefCon® 4.67    | 3.0 oz                   | 41.5                      | 40.4 - 42.5 grams                                           | Use <u>50</u>               | <u>0'</u> Catch Only                                          | 3.27 lb/ac    |  |

|      | Catch                | Test 1 | Catch                | Test 2 | Catch                | Test 3 |      | Catch                | Test 1 | Catch                | Test 2 | Catch                | Test 3 |
|------|----------------------|--------|----------------------|--------|----------------------|--------|------|----------------------|--------|----------------------|--------|----------------------|--------|
| Row# | N/P Num<br>1st Catch | Grams  | N/P Num<br>2nd Catch | Grams  | N/P Num<br>3rd Catch | Grams  | Row# | N/P Num<br>1st Catch | Grams  | N/P Num<br>2nd Catch | Grams  | N/P Num<br>3rd Catch | Grams  |
| 1    |                      |        |                      |        |                      |        | 19   |                      |        |                      |        |                      |        |
| 2    |                      |        |                      |        |                      |        | 20   |                      |        |                      |        |                      |        |
| 3    |                      |        |                      |        |                      |        | 21   |                      |        |                      |        |                      |        |
| 4    |                      |        |                      |        |                      |        | 22   |                      |        |                      |        |                      |        |
| 5    |                      |        |                      |        |                      |        | 23   |                      |        |                      |        |                      |        |
| 6    |                      |        |                      |        |                      |        | 24   |                      |        |                      |        |                      |        |
| 7    |                      |        |                      |        |                      |        | 25   |                      |        |                      |        |                      |        |
| 8    |                      |        |                      |        |                      |        | 26   |                      |        |                      |        |                      |        |
| 9    |                      |        |                      |        |                      |        | 27   |                      |        |                      |        |                      |        |
| 10   |                      |        |                      |        |                      |        | 28   |                      |        |                      |        |                      |        |



For assistance: Call 1-888-SMARTBOX, option #3.

