

## Using a Spread Pattern Test Kit

### 1 Perform a general visual check of your unit.

- Check all bolts and set screws
- Check hydraulic hoses for wear spots & leaks
- Check tie down bolts on Truck Units
- Check drive wheel air pressure
- Check the condition, placement & alignment of all blades
- Verify the chute settings are correct
- Adjust the chain idler as necessary
- Check all filters—return line, suction line
- Check hydraulic oil level
- Check conveyor tension
- Check all bearings—front roller, rear roller, jack shaft & drive wheel

### 2 Choose your location: Your test location should be flat & clean with low growing vegetation, no bumps in wheel tracking area. You should have a 150 foot minimum run (50 feet before the pans and 100 feet after the pans)



### 3 Choose direction—It is best to run into the wind.

### 4 Choose speed to run spreader. Unit must operate at correct RPM's to produce sufficient oil flow to operate the spreader. Using the tachometer, check your RPM's. See *Spinner Speed Test* for more detail on using the tach.



**5 Verify your product is uniform in size & weight.** Lighter materials (urea & ammonia nitrate) will not test over 50 feet in most circumstances. See *Fertilizer Segregation*

**6 Verify your product density.** EACH load should be weighed as product weights can vary even in a single shipment. Fill the density cup to the top. Even off but do not pack. Make sure you fill the cup the same way each time you perform a reading. Using slide to level density cup, read pounds per cubic foot. Adjust the gate setting accordingly.



**7 Lay out your collection pans.** There are a total of 11 pans: a center pan (identified by a color or flag) and 5 pans on either side.



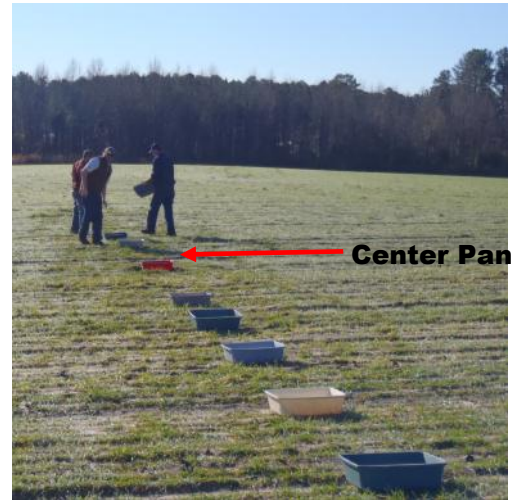
Swath	Number of Pans	Distance Pan Center to Center
60 foot	11	72 inches
50 foot	9	75 inches
45 foot	9	67½ inches

Distance is measured center of pan to center of pan. Center of pan 1 to center of pan 11 is the total swath width. Additional pans may be used to test for effective swath width.

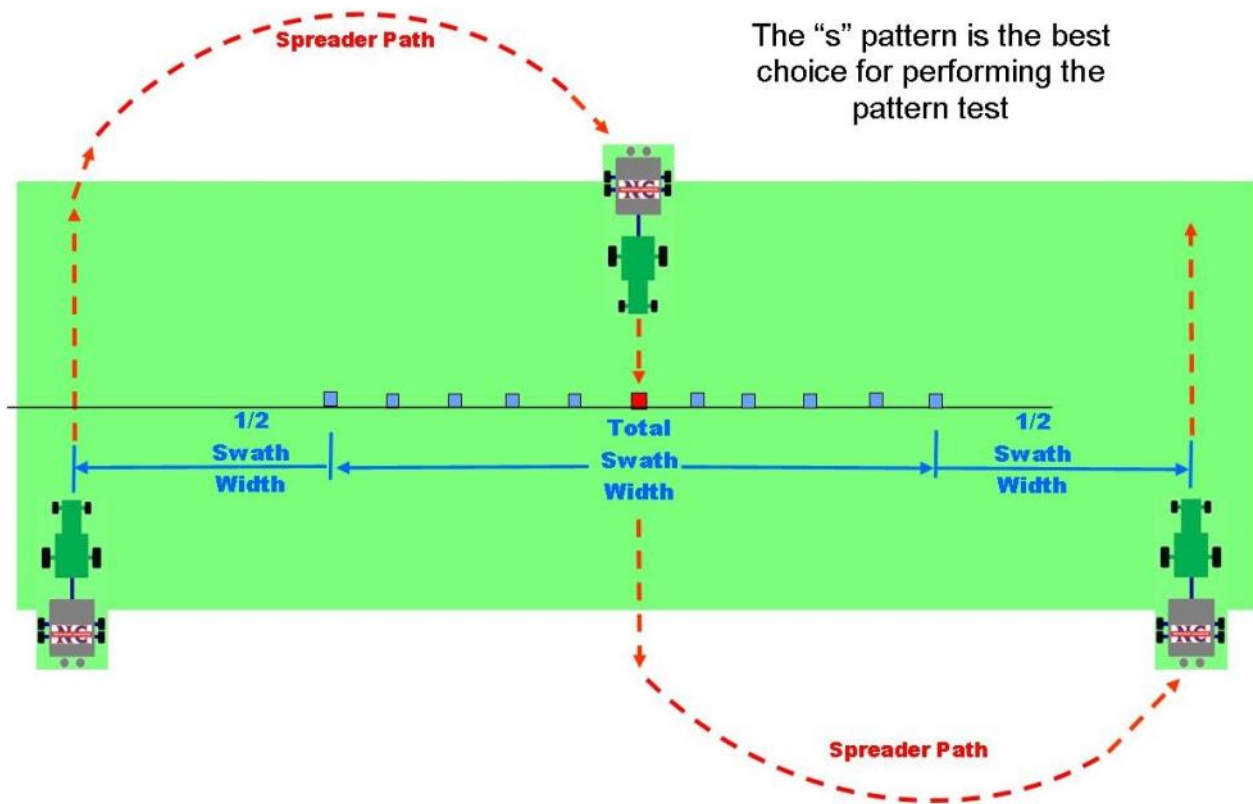
Any swath above 60 foot uses 11 (or more) pans.

Multiply swath width by 12 inches and divide by # of pans (do not count center pan):

$$70 \text{ foot swath} \times 12 = 840 / 10 \text{ pans} = 84 \text{ inches center to center pan lay out}$$



The object is to straddle the center pan. No adjacent pan should come into contact with the tires of the spreader (or tractor). On vehicles with dual rear axles, the rear axle should be measured to determine the total outside width tire to tire.



The center pattern may also be used for the pattern test

**8**



Collect material from each pan using funnel to pour into test tubes.

Pan 1 far left, pan 6 center, pan 11 far right corresponds to direction of travel.



**9**

Evaluate the spread to determine what, if any, adjustments should be made to improve the spread pattern.

A Newton Crouch Inc. spreader at optimum performance should produce a flat top or oval pattern. However, a NCI unit can also spread a pyramid, if set to do so.



**NCI keeps records for each spreader or sprayer manufactured.**



- These records are stored by serial number and will have complete information on your equipment as built.
- It will not reflect any changes made by the purchaser or other alterations.
- There may be differences in replacement part numbers due to technical improvements or changes in vendors / vendor supplies.



The Spreader of Choice

**Before you call NCI for technical assistance, know the serial number from your equipment located on the left side rail on the unit.**

**1-800-241-1350**

**Complete Spread Pattern Test Kit  
MS-79022  
can be purchased at any of our 3 locations**