

Spread Pattern Testing

It is recommended that a spread pattern test be performed for all products and application rates you handle. Once initial testing is completed, testing should be repeated at the beginning of every season, or any time repair work is performed on any component affecting spread patterns. Please refer to "How to Check Your Spread Pattern" manual for details on settings, adjustments and maintenance.

Product Setup

Granule Mesh	Crush Strength	Maximum Spinner RPM	Flotation Machine (Spinner Ht. 52") Spread Width ft (m)	Post Machine (Spinner Ht. 72") Spread Width ft (m)
140-200	1	600	60-65 (18-20)	70-75 (21-23)
	3	650-700	65-70 (20-21)	75-80 (23-24)
	6	750-800	70-75 (21-23)	80-85 (24-26)
	8	850-900	75-80 (23-24)	85-90 (26-27)
220-300	1	600	70-75 (21-23)	80-85 (24-26)
	3	650-700	75-80 (23-24)	85-90 (26-27)
	6	750-800	80-85 (24-26)	90-95 (27-29)
	8	850-900	85-90 (26-27)	95-100 (29-30)
320-400	1	600	80-85 (24-26)	90-95 (27-29)
	3	650-700	85-90 (26-27)	95-100 (29-30)
	6	750-800	90-95 (27-29)	100-105 (30-32)
	8	850-900	95-100 (29-30)	105-110 (32-33)
>400	1	600	90-95 (27-29)	100-105 (30-32)
	3	650-700	95-100 (29-30)	105-110 (32-33)
	6	750-800	100-105 (30-32)	110-115 (33-35)
	8	850-900	105-110 (32-33)	115-120 (35-37)

Always check crush strength prior to selecting spinner speed. Pan testing should ALWAYS be performed on any new or different material to determine actual spread width. Verify granules are not pulverized by looking in the three center vials following a pan test before increasing spinner speed.

IMPORTANT!

Spinner Assembly Setting

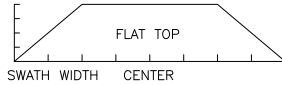
MATERIAL	DENSITY lbs/cu ft (kg/cu m)	SPINNER ASSEMBLY POSITION in (cm)
Lime	80-100 (1281-1601)	0 - 1 (0 - 2.5)
Fertilizer	65 (1040)	3.5 - 3.75 (9 - 9.5)
Urea, Light Rate - 50-200 lb/acre (56-224 kg/hectare)	48 (769)	3.5 - 3.75 (9 - 9.5)
Urea, Heavy Rate - >200 lb/acre (>224 kg/hectare)		2.0 - 2.5 (5 - 6.5)
Mixed Product, MultiApplier	65 (1040)	3.75 (9.5)

Typical Feedgate Setting

PRODUCT	PATTERN WIDTH ft (m)	VEHICLE SPEED mph (km/hr)	GATE HEIGHT in (cm)	APPLICATION RATE lb/acre (kg/hectare)
Fertilizer	80 (24)	15 (24)	2 (5)	50-550 (56-616)
			3 (7.5)	75-775 (84-868)
Lime	60 (18)	15 (24)	6 (15)	1,000-4,000 (1,120-4,480)
			12 (30.5)	6,000-10,000 (6,720-11,200)



Ideal Spread Pattern



Ideal Spread Pattern Overlap

Once you obtain a desirable spread pattern, optimum driving centers can be determined. To determine optimum driving centers (effective swath width), locate the points on both the left and right side of the pattern where the amount of material applied is half the amount at the center of the pattern. The distance between these two points represents the driving centers to be used.

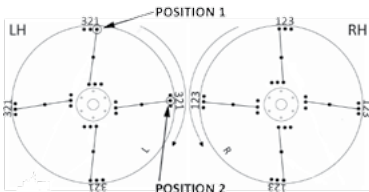
Troubleshooting Spread Patterns

<p>SWATH WIDTH CENTER</p>	<p>Heavy directly behind the vehicle</p>	<ol style="list-style-type: none"> 1. Check spinner fin quality. 2. Move the spinner assembly forward (toward the conveyor). 3. Decrease spinner RPM. 4. Move one or two spinner fins to a lower numbered hole.
<p>SWATH WIDTH CENTER</p>	<p>Light directly behind the vehicle</p>	<ol style="list-style-type: none"> 1. Check spinner fin quality. 2. Move the spinner assembly rearward (away from the conveyor). 3. Increase spinner RPM. 4. Move one or two spinner fins to a higher numbered hole.
<p>SWATH WIDTH CENTER</p>	<p>Light outside vehicle's tire tracks</p>	<ol style="list-style-type: none"> 1. Check spinner fin quality. 2. Decrease spinner RPM. 3. Move one or two spinner fins to a lower numbered hole.
<p>SWATH WIDTH CENTER</p>	<p>Pattern off center</p>	<ol style="list-style-type: none"> 1. Ensure feedgate is level and free of caked material. 2. Ensure hillside divider is mounted squarely and centered. 3. Ensure spinner assembly is mounted squarely and centered. 4. Ensure material divider is mounted squarely and centered. 5. Testing should be performed parallel to wind.

IMPORTANT!

Make only one adjustment to the spreader between test runs.

Spinner Fin Adjustments



- Fin locations shown for 30" conveyors
- For 24" conveyors, position all fins in center position (#2)