



PRECISION AGRICULTURE SERIES

TIMELY INFORMATION

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Tramlines

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Tramlines in wheat serve several purposes. The first is that they provide a controlled traffic pattern for spray applications during the growing season. Tramlines can help applications be more timely. Travelling over the same path in the field can increase compaction in that area, which may allow equipment to go in the field sooner during the wet winter months. Late spraying (without tramlines, or creating tramlines later in the season) can reduce your yield by 2%.

What is a tramline? Tramlines are skip rows (not planted) in the field that create a pattern for spray equipment to travel over. The location of the tramlines in a field depends on the width of your sprayer. Generally, putting in tramlines is simpler if your sprayer width is a multiple of your planter width. Spray equipment should be a minimum of 40 feet for tramlines to be economical. If a custom applicator will be applying inputs to your crop, you will need to know the width of the equipment that they will use. Another method for establishing tramlines is to hang or mount a spray tip (to apply glyphosate) behind the tires of the sprayer. If you plan to make several spray applications to your wheat crop, you should consider tramlines.

Research has shown that tramlines do not reduce yield (when they are spaced a minimum of 40 feet apart). The border rows adjacent to the tramlines will compensate for the yield reduction from the unplanted area. This is not the case if you simply run over the wheat with equipment, because those wheat plants will not yield much grain, but they will prevent the border rows from compensating. The crushed plants will compete with the border plants for water and nutrients. The University of Kentucky's *Comprehensive Guide to Wheat Management* (<http://www.ca.uky.edu/agc/pubs/id/id125/03.htm>) states that you can run over the plants to create tramlines if you do it early enough to allow compensation from adjacent rows. RTK level GPS equipment could be used to accurately install tram lines using this method.

To create tramlines, the drill spouts that correspond with the width and location of the sprayer tires are blocked, therefore preventing the seed from being planted. Y tubes are available that divert the seed to the adjacent row. It is recommended to only block one row of seed per tire path, to create a 12-16" area for the sprayer tires to travel through.

www.AlabamaPrecisionAgOnline.com

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Commercial Products

Tram Rite is a commercial product developed by Jim Lafferty. Mr. Lafferty custom makes kits for most US manufactured grain drills, corn and soybean planters. Phil Needham, with Needham Ag Technologies, also sells equipment to install tramlines. These are the only two commercial dealers of products in the United States that could be located at this time. (Mid-Tech/TeeJet's product is not available in the United States.)

TramRite
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118 Clark Patton Road
Fredricksburg, VA 22406
(540) 874-1987 cell
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www.needhamag.com

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Do-it-yourself

Brian and Don Glenn of Glenn Acres farm use a homemade system to create their tramlines. Their planter is 30' wide and the sprayer is 90' wide. The Glenn's use an air seeder with a linear actuator that blocks the seed at the air tank during the second of three passes. They have a counter, with a relay, that automatically closes every third time that the drill is raised. The manual advance button (shown in photo on page 3, on right) advances the pass number, and has the same effect as raising the drill. If you lift the drill for crossing a waterway, for example, this advance button allows you to reset to the proper pass. This is accomplished by tying into the proximity switch. a source for the counter is www.grainger.com (Grainger # 4FE29, electronic counter) and linear actuator. A linear actuator (a product similar to what they used is item-5-1650, 5" stroke 12 VDC linear actuator) could also be found at www.surpluscenter.com.



This is a photo of the linear actuator that opens and closes the door on the air seeder. The door was present on the air seeder when it was purchased.



The green and red lights indicate if the door on the air seeder is open or closed; therefore telling you if the tramlines are being planted or not.

This is the manual advance button.

This is a photo of the counter that indicates when the tramlines should be planted. It is set to activate the linear actuator on the second of every three passes.

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