

## Soybean Inoculant Trial - Seed Applied vs. Seed Applied & In-Furrow Inoculant

Trial ID: 2018-S2In07 – R.M. of Dauphin

**Objective:** Quantify the agronomic and economic impacts of seed applied inoculant (single inoculation) vs. seed applied plus in-furrow inoculant (double inoculation) in soybean fields. This trial requires a minimum field history of 2 previous soybean crops.

### TRIAL INFORMATION

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Treatment</b>            | Single vs. Double Inoculation |
| <b>Rural Municipality</b>   | Dauphin                       |
| <b>Previous Crop</b>        | Wheat                         |
| <b>Soil Description</b>     | Fine Sandy Loam               |
| <b>Tillage</b>              | Conventional                  |
| <b>Planting Date</b>        | May 22, 2018                  |
| <b>Variety</b>              | Notus R2                      |
| <b>Row Spacing</b>          | 10"                           |
| <b>Seeding Rate</b>         | 218,000 seeds/ac              |
| <b>Plant Stand @V1</b>      | 178,000 plants/ac             |
| <b># of Years since Soy</b> | 2 years                       |
| <b># of Prev. Soy Crops</b> | 2016, 2012                    |
| <b>In-Furrow Inoculant</b>  | 5 lbs/ac Cell-Tech (granular) |
| <b>Harvest Date</b>         | October 20, 2018              |

### SOIL PROPERTIES

| N 0-24"   | pH  | Salts 0-6" | CCE% |
|-----------|-----|------------|------|
| 53 lbs/ac | 8.1 | 0.29       | 3.2% |

### PRECIPITATION<sup>†</sup>

|                 | May | June | July | Aug |
|-----------------|-----|------|------|-----|
| <b>Rainfall</b> | 38  | 104  | 91   | 3   |
| <b>Normal</b>   | 54  | 87   | 73   | 63  |

<sup>†</sup> Growing season precipitation (mm)

### NODULATION COUNT

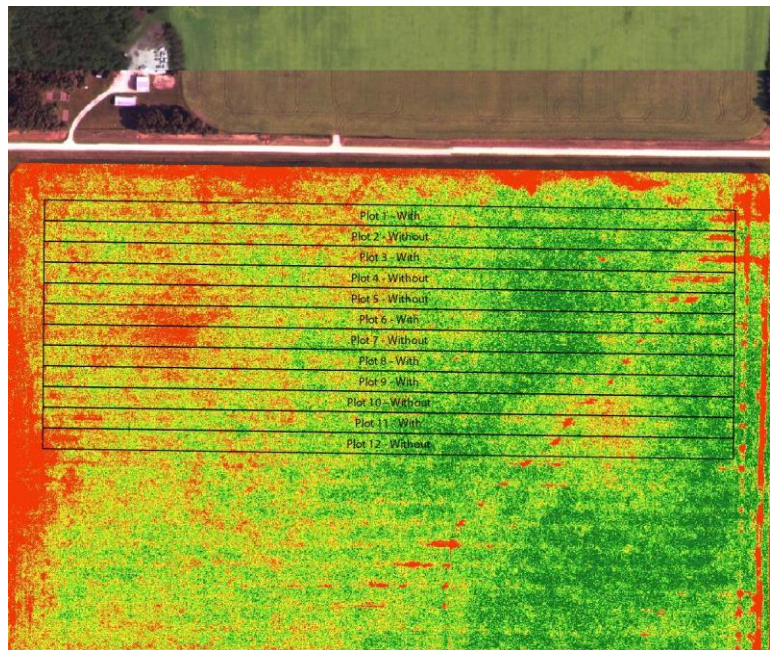
#### Average # of Nodules @ R2

|                           |    |
|---------------------------|----|
| <b>Double Inoculation</b> | 39 |
| <b>Single Inoculation</b> | 38 |

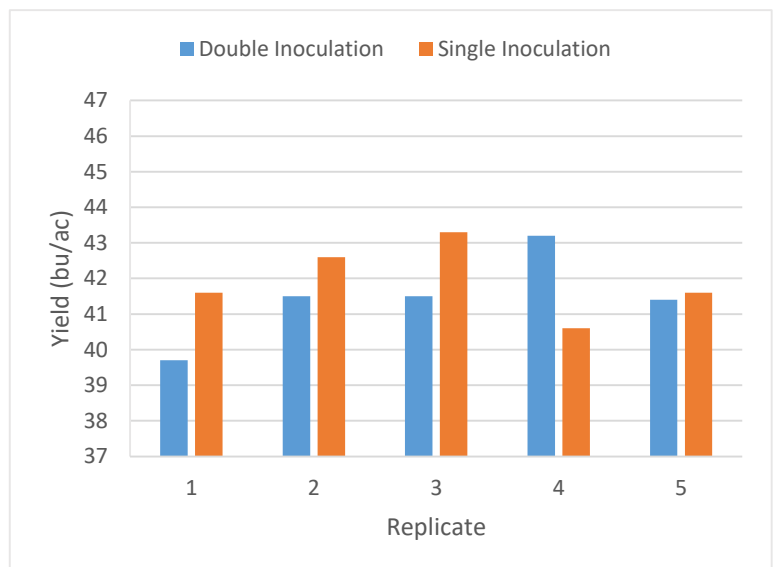
### OVERALL YIELD

|                           | Mean (bu/ac) |
|---------------------------|--------------|
| <b>Double Inoculation</b> | 41.5         |
| <b>Single Inoculation</b> | 41.9         |
| <b>Yield Difference</b>   | - 0.4        |
| <b>P-Value</b>            | 0.5252       |
| <b>CV</b>                 | 2.7%         |
| <b>Significance</b>       | <b>No</b>    |

### NDVI FIELD IMAGE – AUG 9, 2018 (GROWTH STAGE R6)



### STRIP YIELD



**Summary:** There was no significant yield difference between seed applied inoculant (single inoculant) and seed applied plus in-furrow inoculant (double inoculation) applied to soybeans. There was good nodulation for both single and double inoculation treatments. This trial was established on a field with a history of at least two previous, well nodulated soybean crops.