

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

Trial ID: 2015-S2In02 – R.M. of Morris

**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. The trial is conducted in the Central, Eastern and Interlake regions of Manitoba and requires a minimum history of 2 previous soybean crops.

### TRIAL INFORMATION

|                             |                               |
|-----------------------------|-------------------------------|
| <b>Treatment</b>            | Single vs. Double Inoculation |
| <b>Rural Municipality</b>   | Morris                        |
| <b>Previous Crop</b>        | Soybeans                      |
| <b>Soil Description</b>     | Clayey Lacustrine             |
| <b>Tillage</b>              | Conventional                  |
| <b>Planting Date</b>        | May 12, 2015                  |
| <b>Variety</b>              | P008T70R                      |
| <b>Row Spacing</b>          | 22"                           |
| <b>Seeding Rate</b>         | 170,000 seeds/ac              |
| <b>Plant Stand @V1</b>      | 156,000 plants/ac             |
| <b># of Years since Soy</b> | 2014 – last year              |
| <b># of Prev. Soy Crops</b> | 2 previous soybean crops      |
| <b>In-Furrow Inoculant</b>  | Liquid 1X rate                |
| <b>Harvest Date</b>         | September 14, 2015            |

### SOIL PROPERTIES

| N 0-24"   | pH  | Salts 0-6" | CCE% |
|-----------|-----|------------|------|
| 61 lbs/ac | 6.4 | 0.9        | 0.2  |

### PRECIPITATION<sup>†</sup>

|                 | May  | June  | July  | Aug   |
|-----------------|------|-------|-------|-------|
| <b>Rainfall</b> | 75   | 75    | 147.5 | 102.5 |
| <b>Normal</b>   | 67.6 | 101.8 | 85.6  | 83.9  |

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

### NODULATION COUNT

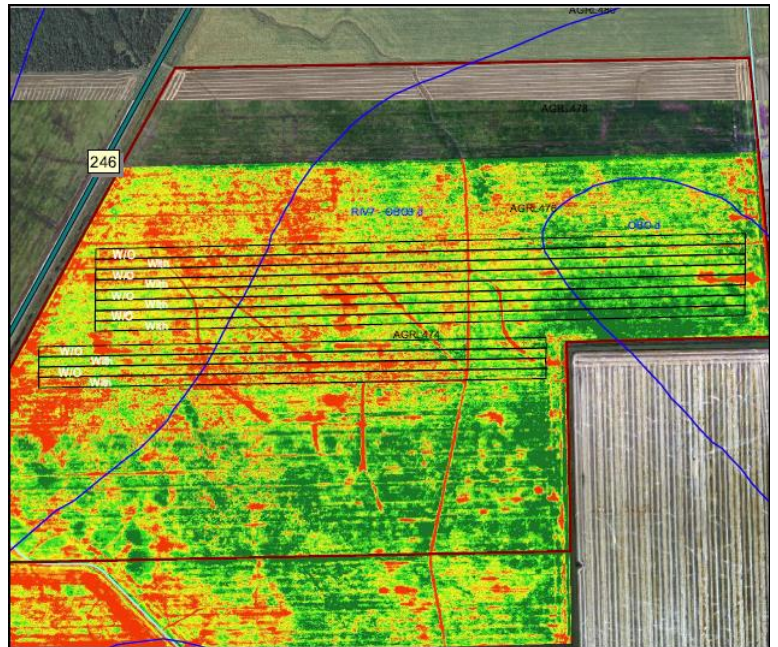
#### Average # of Nodules @ R2

|                           |              |
|---------------------------|--------------|
| <b>Double Inoculation</b> | > 20 nodules |
| <b>Single Inoculation</b> | > 20 nodules |

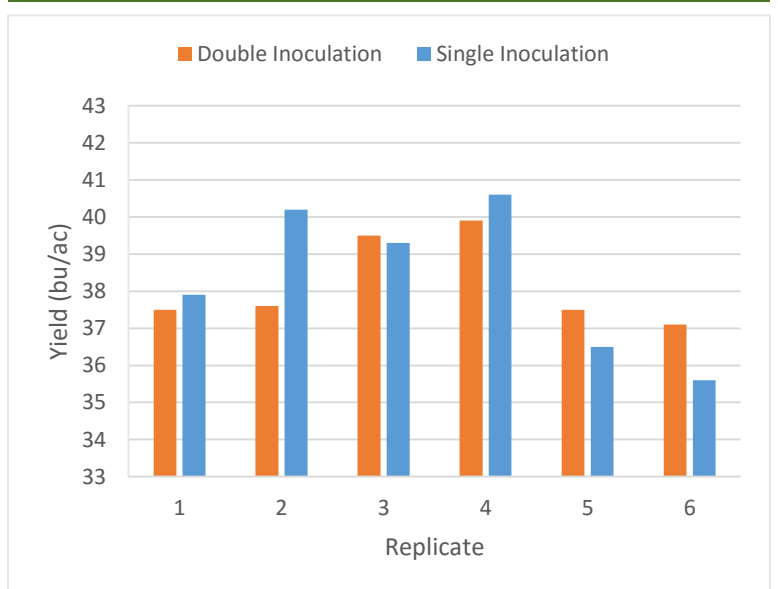
### OVERALL YIELD

|                           | Mean (bu/ac) |
|---------------------------|--------------|
| <b>Double Inoculation</b> | 38.2         |
| <b>Single Inoculation</b> | 38.4         |
| <b>Yield Difference</b>   | -0.2         |
| <b>P-Value</b>            | 0.7898       |
| <b>CV</b>                 | 4.2%         |
| <b>Significance</b>       | No           |

### NDVI FIELD IMAGE – AUG. 19 (GROWTH STAGE R6)



### STRIP YIELD



**Summary:** There was no significant yield difference between seed applied inoculant (single inoculation) and seed applied plus in-furrow inoculant (double inoculation) applied to soybeans. The previous crop was soybeans, and there was a history of two previous soybean crops grown on this field. There was more than 20 nodules per plant for both inoculation treatments.