

## Soybean Inoculant Trial – Seed Applied vs. No Inoculant

## Trial ID: 2016-S1In04 – R.M. of Roland

**Objective:** Quantify the agronomic and economic impacts of seed applied inoculant (single inoculation) vs. no inoculant applied in soybean fields. The trial is conducted in the Central, Eastern and Interlake regions of Manitoba and requires a minimum history of 3 previous soybean crops.

| TRIAL INFORMATION         |                           |  |
|---------------------------|---------------------------|--|
| Treatment                 | Seed Applied Inoculant    |  |
| <b>Rural Municipality</b> | Roland                    |  |
| Previous Crop             | Ryegrass                  |  |
| Soil Description          | Clayey / Loamy Lacustrine |  |
| Tillage                   | Conventional              |  |
| Planting Date             | May 5, 2016               |  |
| Variety                   | 24-10 RY                  |  |
| Row Spacing               | 30"                       |  |
| Seeding Rate              | 176,000 seeds/ac          |  |
| Plant Stand @ V1          | 130,000 plants/ac         |  |
| # of Years since Soy      | 2013 – 2 years            |  |
| # of Prev. Soy Crops      | 3 previous soybean crops  |  |
| Harvest Date              | September 20, 2016        |  |

| SOIL PROPERTIES |           |            |      |
|-----------------|-----------|------------|------|
| N 0-24"         | і<br>і рН | Salts 0-6" | CCE% |
| 28 lbs/ac       | 6.5       | 0.31       | 4.7  |

| PRECIPITATION                       |          |       |      |      |
|-------------------------------------|----------|-------|------|------|
|                                     | i<br>May | June  | July | Aug  |
| Rainfall                            | 105      | 107.5 | 70   | 37.5 |
| Normal                              | 67.7     | 96.4  | 78.6 | 74.8 |
| + Growing season precipitation (mm) |          |       |      |      |

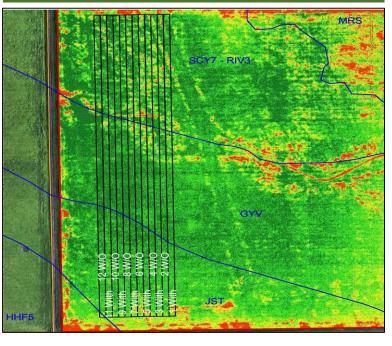
## NODULATION COUNT

|                        | Average # of Nodules @ |
|------------------------|------------------------|
| Seed Applied Inoculant | 42                     |
| No Inoculant           | 40                     |

## OVERALL YIELD

|                        | Mean (bu/ac) |  |
|------------------------|--------------|--|
| Seed Applied Inoculant | 55.4         |  |
| No Inoculant           | 55.6         |  |
| Yield Difference       | -0.2         |  |
| P-Value                | 0.6084       |  |
| CV                     | 2.6%         |  |
| Significance           | Νο           |  |

FIELD IMAGE – AUG. 17 (GROWTH STAGE R5.5)





**Summary:** There was no significant yield difference between seed-applied inoculant and no inoculant applied to soybeans. There was two years since the last soybean crop was grown in 2013, and there was a history of four previous soybean crops on this field. Nodulation was high for both treated and untreated strips.

R2

