

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

Trial ID: 2018-S1In03 - R.M. of Brokenhead

**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 three previous soybean crops.

| TRIAL INFORMATION         |                        |  |
|---------------------------|------------------------|--|
| Treatment                 | Seed Applied Inoculant |  |
| <b>Rural Municipality</b> | Brokenhead             |  |
| Previous Crop             | Oats                   |  |
| Soil Description          | Clay                   |  |
| Tillage                   | Conventional           |  |
| Planting Date             | May 14, 2018           |  |
| Variety                   | LS Mistral             |  |
| Row Spacing               | 10"                    |  |
| Seeding Rate              | 190,000 seeds/ac       |  |
| Plant Stand @ V1          | 166,000 plants/ac      |  |
| # of Years since Soy      | 2 years                |  |
| # of Prev. Soy Crops      | 2016, >3x in past      |  |
| Harvest Date              | October 22, 2018       |  |

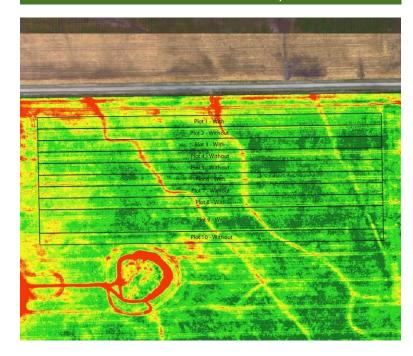
| SOIL PROPERTIES |           |            |      |  |
|-----------------|-----------|------------|------|--|
| N 0-24"         | ı<br>ı pH | Salts 0-6" | CCE% |  |
| 38 lbs/ac       | 8.0       | 1.29       | 7.8% |  |

| PRECIPITATION <sup>†</sup> |     |      |      |       |
|----------------------------|-----|------|------|-------|
|                            | May | June | July | ı Aug |
| Rainfall                   | 53  | 120  | 25   | 45    |
| Normal                     | 54  | 90   | 73   | 73    |

| f Growing season precipitation (mm) |                           |  |
|-------------------------------------|---------------------------|--|
| NODULATION COUNT                    |                           |  |
|                                     | Average # of Nodules @ R2 |  |
| Seed Applied Inoculant              | 23                        |  |
| No Inoculant                        | 25                        |  |

| OVERALL YIELD          |              |  |
|------------------------|--------------|--|
|                        | Mean (bu/ac) |  |
| Seed Applied Inoculant | 40.6         |  |
| No Inoculant           | 40.9         |  |
| Yield Difference       | - 0.3        |  |
| P-Value                | 0.7277       |  |
| CV                     | 3.6%         |  |
| Significance           | No           |  |

## NDVI FIELD IMAGE – AUGUST 13, 2018





**Summary:** There was no significant yield difference between soybeans treated with a single seed applied inoculant vs. no inoculant. Soybeans were well nodulated for both the treated and untreated strips. This trial was established on a field with a history of at least three previous, well nodulated soybean crops and the most recent soybean crop was grown within the past four years.

