Agri-ARM 2015
Growing Soybean for Profit

Garry Hnatowich
Research Director ICDC
Soybean Agronomy 2014

1. Plant Population & Row Spacing
2. Inoculation
3. Seeding Date

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Soybean Agronomy 2014

1. Plant Population & Row Spacing
   A. Two row spacing’s – 10 & 20”
   B. Five target plant populations
      • 120,000 plants/acre
      • 160,000 plants/acre
      • 200,000 plants/acre
      • 240,000 plants/acre
      • 280,000 plants/acre
Soybean Plant Population Study

% Emergence

R² = 0.7902

R² = 0.9771

10 inch

20 inch
Soybean Plant Population Study

Yield (bu/ac)

- R² = 0.9337
- R² = 0.9962

- 10 inch
- 20 inch
Soybean Agronomy 2014

2. Inoculation Study
   A. Two Inoculant Companies – BASF & Novozymes
   B. Two Inoculant Formulations – liquid & granular
   C. ApronMaxx – alone or in inoculant combination
   D. Granular Applications – 8 or 12 lbs/acre
Soybean Inoculation Study 2014

Yield
bu/ac

- check
- ST
- L1
- L2
- 8G1
- 8G2
- 8G1+L1
- 8G2+L2
- 8G1+L1+ST
- 8G2+L2+ST
- 12G1
- 12G2
- 12G1+L1
- 12G2+L2
- 12G1+L1+ST
- 12G2+L2+ST

Inoculant
Soybean Inoculation Study 2014

Yield
bu/ac

- check
- seed trt
- liquid
- 8 lb gran
- 12 lb gran
- 8 lb gran+liquid
- 12 lb gran+liquid
- 8 lb gran+liquid+st
- 12 lb gran+liquid+st

Inoculant
Soybean Inoculation Study 2014

% Yield of Check

- check
- seed trt
- liquid
- 8 lb gran
- 12 lb gran
- 8 lb gran+liquid
- 12 lb gran+liquid
- 8 lb gran+liquid+st
- 12 lb gran+liquid+st

Inoculant
Soybean Agronomy 2014

3. Seeding Date
   A. 6 Dates
      a) May 9
      b) May 15
      c) May 22
      d) May 29
      e) June 5
      f) June 12
   B. With & without seed treatment
Soybean Seeding Date Study

Yield (bu/ac)

R² = 0.95

Seeding Date

06-May 11-May 16-May 21-May 26-May 31-May 05-Jun 10-Jun 15-Jun

Bu/ac

0 5 10 15 20 25 30 35 40
Soybean Seeding Date Study

% Emergence

R² = 0.9346

Seeding Date

06-May 11-May 16-May 21-May 26-May 31-May 05-Jun 10-Jun 15-Jun
Soybean Seeding Date Study

Temperature °C

Temperature data is shown for daily dates from May 1st to June 12th, with min and max values indicated by red and blue bars, respectively.
Soybean Date of Seeding Study

Plant Population
(plants/ac)

R² = 0.963

R² = 0.8549

Seeding Date

06-May 11-May 16-May 21-May 26-May 31-May 05-Jun 10-Jun 15-Jun

Treated seed

Bare seed
Soybean Seeding Date Study

Pods per Plant

Seeding Date

# Pods Plant

06-May 11-May 16-May 21-May 26-May 31-May 05-Jun 10-Jun 15-Jun

Total Pods

3> Seeds/Pod

2< Seeds/Pod
Soybean Seeding Date Study

Pods/ac

R² = 0.9741
Soybean Seeding Date Study

R² = 0.8361

R² = 0.9796

Seed Planting Date

Pods/acre

0
500,000
1,000,000
1,500,000
2,000,000
2,500,000

06-May 11-May 16-May 21-May 26-May 31-May 05-Jun 10-Jun 15-Jun

Seeding Date

R² = 0.8361

R² = 0.9796

2-Pods/acre

3-Pods/acre
Soybean Seeding Date Study

TKW

\[ R^2 = 0.8138 \]
Soybean Seeding Date Study

# Pods <1.25" per Plant

R² = 0.9845