Soybean Management Considerations for 2019

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2018 Mississippi Soybean Summary

• 2.2 million acres
  • Up 1% from 2017
• 53 bu/A
  • As of November Estimates
  • Tied with 2017 and would remain state record

• Environmental challenges at beginning and end....
2018 Planting Progress

Planting Progress
5 year avg.
Considerations for 2019

• Stand Establishment & Replant Decisions

• Fungicide Timing & Seed Quality

• Planting Date, Variety Selection & Seed Quality
Stand Challenges
Replant Decisions

0% Removal 25% Removal 50% Removal

75% Removal 100% Removal
Considerations for 2019

• Replant Decisions

• Fungicide Timing and Seed Quality

• Planting Date, Variety Selection and Seed Quality
Fungicide Application Timing

• Determine if delaying the timing of an automatic fungicide application to later growth stages results in similar response yield observed following applications at the R3 timing.
Fungicide Application Timing

• Locations
  • Starkville, MS (2017, 2018)
    • Soil type: Marietta Fine Sandy Loam
  • Stoneville, MS (2018)
    • Soil type: Sharkey Clay

• Soybean Variety
  • Pioneer P47T89R (2017)
  • Asgrow AG46X6 (2018)

• Plot Size
  • Four row plots
    • 40” row spacing- 13.33x40 ft (Stoneville)
    • 38” row spacing- 12.67x40 ft (Starkville)

• Application
  • Two center rows
  • 30 psi
  • TeeJet Turbo Twin Jet Spray Tips
Fungicide Application Timing

- 20 Treatments
  - 4 replications
- 5 Application Timings
  - R3
  - R4
  - R5
  - R6
  - R3+R5
- 3 Products
  - Quadris (Azoxystrobin)
  - Quadris Top SBX (Azoxystrobin + Difenconazole)
  - Priaxor + Domark (Fluxapyroxad + Pyraclostrobin + Tetraconazole)
- Untreated Check for each corresponding growth stage
Fungicide Application Timing

Soybean Yield

Application Timing

Bu/A

R3  R4  R5  R6  R3+R5

61.8  61.9  60.6  60.8  62.2
Soybean Yield by Fungicide

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<table>
<thead>
<tr>
<th>Product</th>
<th>Bu/A</th>
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<tbody>
<tr>
<td>Priaxor + Domark</td>
<td>A</td>
</tr>
<tr>
<td>Quadris Top SBX</td>
<td>A</td>
</tr>
<tr>
<td>Quadris</td>
<td>AB</td>
</tr>
<tr>
<td>Untreated</td>
<td>B</td>
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</tbody>
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Combination of Products
Damage Results

[Bar chart showing damage results for different treatments in R3, R4, R5, R6, and R3+R5 categories.]
Considerations for 2019

• Replant Decisions

• Fungicide Timing and Seed Quality

• Planting Date, Variety Selection and Seed Quality
Soybean Irrigation and Yield: Planting Date and Maturity Group

Source: Wood and Krutz 2017
Variety Selection

Soybean Seed Damage

- Variety Comparison
  - AgriGold G4440RX
  - AGS 548X18
  - Armor 47-D17
  - Armor 48-D24
  - Asgrow AG45X8
  - DeltaGro DG 48X45 D
  - DynaGro S48X76
  - Local Seed LS4677X
  - NK S43-V3X
  - NK S45-K5X
  - NK S48-R2X
  - Pioneer P48A122X
  - Progeny P48A60X
  - Progeny P48S1 RX
  - Terra REV A857X
  - Terra REV A927X

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EXTENSION
Variety Screening for Iron Chlorosis Tolerance
Variety Selection

• Variety screening for tolerance to iron chlorosis

• 66 maturity group IV and 32 maturity group V varieties in 2018
  • Roundup Ready / Roundup Ready 2 / Roundup Ready 2 Xtend
  • Visual estimates recorded on a 1 – 10 scale
    • 1 = excellent tolerance
    • 10 = poor tolerance
Soybean Variety Selection

• Mississippi Soybean Official Variety Trial
  • http://www.mafes.msstate.edu/variety-trials/

• MSU-ES Soybean Variety Demonstration Program

• MSPB – MSSoy Variety Selector
  • http://mssoy.org/variety-selector
Thanks!

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