FIELD EXPERIMENT HISTORY

Title: Determining Corn Hybrid Maturity

Experiment: 01GD Trial ID 3066 Year: 2007

Personnel: J.G. Lauer, K.D. Kohn, and T.H. Diallo

Location: Arlington, WI County: Columbia

Supported By: HATCH

Site Information

Field: ARS408 Previous Crop: Soybean Soil Type: Plano Silt Loam

Soil Test: Date: 10/1/07 pH: 7.0 OM (%): 3.3 P (ppm): 137 K (ppm): 43

Plot Management

Tillage Operations: Chisel Plow Field Cultivator Cultivated 6/8/07

Analysis: Rate lbs/A: Date:
Fertilizer: Preplant: 46-0-0 325 lbs 4/23/07
Starter: 9-23-30 150 4/30/07
Post plant: N/A N/A N/A
Manure: N/A N/A N/A

Herbicide: Harness 29 oz/A Callisto 3.0 oz/A Insecticide: Force 3G 4.4lb/A

Hybrid: See Factors

Irrigation: None

Planting Date: 4/30/07 Planting Depth: 1.5" Row Width: 30"

Target Plant Density: 30000 plants per acre Planting Method: Kinze Plot Planter

Harvest Date: 10/5/07 Harvest Method: Massey Ferguson 8XP

Experimental Design

Design: RCB Replications: 3

Plot Size Seeded 10' x 25' Experiment Size: 0.28 Acre

Harvest Plot Size: 5' x 22' Harvest Plant Density: 29849 plants per acre

Factors/Treatments:

Hybrids:
- Brunner S3704Bt
- Croplan 591TS
- Croplan 691BILLL
- Dairyland Stealth 5204
- Kruger K1500RR
- Kruger K9496YG
- Kussmaul
- SB2983RRYGPitus
- Lemke 3081Bt
- Mycogen 2R174
- NK Brand N16-M1
- Pioneer 34N44
- Pioneer 35A30
- Pioneer 39D82
- Renk RK438YGB
- Trelay 7454Bt
- Trelay 8K339

Results: Table C-1 and C-2.
**Table C-1. Determining Corn Hybrid Maturity - Comparison of Hybrids**

**Arlington, WI - 2007**

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<tr>
<th>Hybrid</th>
<th>Relative maturity yield bu/A</th>
<th>%</th>
<th>Grain test weight lb/bu</th>
<th>%</th>
<th>Grower silking return %</th>
<th>Early kernel dent 75%</th>
<th>Early kernel 50%</th>
<th>Early kernel 25%</th>
<th>Black layer height inches</th>
<th>Plant height Oil</th>
<th>Starch %</th>
<th>Protein %</th>
<th>Ethanol per bu</th>
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**Probability(%)**

| Hybrid (H)          | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

**LSD(0.10)**

| Hybrid (H)          | 23.0   | 1.0    | 0.9    | 12.0   | 78.0   | 1.0    | 3.0    | 3.0    | 2.0    | 2.0    | 3.0    | 0.1    | 0.4    | 0.3    | 0.02   | 67.0   |

**CV(%)**

<p>|                | 8.0    | 4.0    | 1.0    | 71.0   | 8.0    | 0.0    | 1.0    | 1.0    | 1.0    | 1.0    | 1.0    | 3.0    | 3.0    | 0.0    | 3.0    | 1.0    | 8.0    |</p>
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**Probability(%)**

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**LSD(0.10)**

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**CV(%)**

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## FIELD EXPERIMENT HISTORY

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</tr>
<tr>
<td>Personnel:</td>
<td>J.G. Lauer, K.D. Kohn, and T.H. Diallo</td>
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<td>Location:</td>
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<td>County:</td>
<td>Wood</td>
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<td>Supported By:</td>
<td>HATCH</td>
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### Site Information

| Field: | Previous Crop: Soybean | Soil Type: Withee Silt Loam |
| Soil Test: | Date: 10/1/07 | pH: 6.4 | OM (%): 3.3 | P (ppm): 220 | K (ppm): 75 |

### Plot Management

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<td>Post plant:</td>
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<td>Target Plant Density:</td>
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<td>Planting Method: Kinze Plot Planter</td>
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<tr>
<td>Harvest Date:</td>
<td>10/25/07</td>
<td>Harvest Method: Massey Ferguson 8XP</td>
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### Experimental Design

| Design: RCB | Replications: 3 |
| Plot Size Seeded: 10' x 25' | Experiment Size: 0.28 Acre |
| Harvest Plot Size: 5' x 22' | Harvest Plant Density: 30096 plants per acre |

### Factors/Treatments

<table>
<thead>
<tr>
<th>Hybrids:</th>
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<tbody>
<tr>
<td>Brunner S3704Bt</td>
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<tr>
<td>Dairyland Stealth 5204</td>
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<td>Kruger K1500RR</td>
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<td>Kruger K9496YG</td>
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Results: Table C-3.
Table C-3. Determining Corn Hybrid Maturity - Comparison of Hybrids
Marshfield, WI - 2007

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Relative maturity</th>
<th>Grain yield bu/A</th>
<th>Grain moisture %</th>
<th>Test weight lb/bu</th>
<th>Lodging %</th>
<th>Grower return $/A</th>
<th>Grain Composition</th>
<th>Ethanol</th>
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<td>Oil %</td>
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<table>
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<th>Hybrid</th>
<th>Relative maturity</th>
<th>Grain yield bu/A</th>
<th>Grain moisture %</th>
<th>Test weight lb/bu</th>
<th>Lodging %</th>
<th>Grower return $/A</th>
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Mean 166 20.9 53.4 14 556 3.5 59.9 7.9 2.88 479

Probability(%) 0.0 0.0 0.0 2.8 0.0 0.0 0.0 0.0 0.0 0.0

LSD(0.10) Hybrid (H) 15 1.2 1.1 12 48 0 0.5 0.4 0.02 43

CV(%) 6 4 2 61 6 2 1 4 1 7
Title: Determining Corn Hybrid Maturity

Experiment: 01GD

Personnel: J.G. Lauer, K.D. Kohn, and T.H. Diallo

Location: Seymour, WI

Supported By: HATCH

**Site Information**

**Field:**

- Previous Crop: Soybean
- Soil Type: Clay Loam
- Soil Test: Date: 10/1/07  
  - pH: 6.3
  - OM (%): 3.4
  - P (ppm): 246
  - K (ppm): 125

**Plot Management**

- Tillage Operations: Chisel Plow
- Field Cultivator: Cultivated 6/14/07
- Analysis:
  - Fertilizer: Preplant: N/A
  - Starter: 9-23-30 150 5/7/07
  - Post plant: 34-0-0 324 6/14/07
  - Manure: N/A
- Herbicide: Hornet 2.0 oz/A
  - Keystone LA 1.7 qt/A
- Insecticide: None
- Hybrid: See Factors
- Irrigation: None
- Planting Date: 5/7/07
- Planting Depth: 1.5"
- Row Width: 30"
- Target Plant Density: 30000 plants per acre
- Harvest Date: 10/12/07
- Harvest Plot Size: 5' x 22'
- Harvest Plant Density: 29375 plants per acre
- Planting Method: Kinze Plot Planter
- Harvest Method: Massey Ferguson 8XP

**Experimental Design**

- Design: RCB
- Replications: 3
- Plot Size Seeded: 10' x 25'
- Experiment Size: 0.28 Acre
- Harvest Plot Size: 5' x 22'
- Harvest Plant Density: 29375 plants per acre

**Factors/Treatments:**

- **Hybrids:**
  - Brunner S3704Bt
  - Croplan 591TS
  - Croplan 691BLL
  - Dairyland Stealth 5204
  - Kruger K1500RR
  - Kruger K9496YG
  - Croplan 591TS SB2983RRYGPlus
  - Croplan 691BLL Lemke 3081Bt
  - Dairyland Stealth 5204 Mycogen 2R174
  - Kruger K1500RR NK Brand N16-M1
  - Kruger K9496YG Pioneer 34N44
  - Pioneer 35A30
  - Pioneer 39D82
  - Renk RK438YGB
  - Trelay 7454Bt
  - Trelay 8K339

**Results:** Table C-4.
Table C-4. Determining Corn Hybrid Maturity - Comparison of Hybrids
Seymour, WI - 2007

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Relative maturity</th>
<th>Grain yield bu/A</th>
<th>Grain moisture %</th>
<th>Test weight lb/bu</th>
<th>Lodging</th>
<th>Grower return $/A</th>
<th>Grain Composition Oil %</th>
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<td>60.1</td>
<td>7.8</td>
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<td>202</td>
<td>27.1</td>
<td>52.3</td>
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<td>2.90</td>
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</tr>
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</table>

**Probability(%)**

| Hybrid (H) | 0.0 | 0.0 | 0.0 | 5.5 | 0.2 | 0.4 | 13.6 | 0.0 | 0.3 | 0.0 |

**LSD(0.10)**

| Hybrid (H) | 20 | 1.7 | 1.4 | 5   | 71  | 0   | NS   | 0.4 | 0.03 | 60 |

**CV(%)**

| 8 | 7 | 2 | 112 | 9 | 6 | 1 | 4 | 1 | 9 |