1998 Seed Dealer Update Meetings

Joe Lauer, Corn Agronomist
GDU Accumulation during 1997 at Arlington, WI. GDU bars around 1961-90 average occur 4 of 5 years.

Lauer, 1997
## 1997 Wisconsin Corn Hybrid Performance Trial Summary

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*Lauer, 1997*
Corn hybrid silage yield and quality in the south central production zone of Wisconsin.

Lauer, 1997

University of Wisconsin-Madison
Materials and Methods

- Plant density (plants/acre) 18000, 24000, 30000, 36000, and 42000
- Corn hybrids selected for similar maturity, silage yield, and grain yield.
- Hybrids differed for silage quality traits
Relationship between corn silage yield and plant density between 1994 and 1996.

Lauer, 1997
Relationship between corn silage neutral detergent fiber (NDF) and plant density between 1994 and 1996.

NDF (%)

40
42
44
46
48
50

18000 22000 26000 30000 34000 38000 42000

Harvest plant density (number/A)

Lauer, 1997

University of Wisconsin-Madison
Relationship between corn silage *in vitro* digestibility (IVD) and plant density between 1994 and 1996.

Lauer, 1997

University of Wisconsin-Madison
Relationship between corn silage Milk per ton and plant density between 1994 and 1996.

Lauer, 1997

University of Wisconsin-Madison
Relationship between corn silage Milk per acre and plant density between 1994 and 1996.

Lauer, 1997

University of Wisconsin-Madison
Corn silage hybrid relationship between Milk per ton and plant density between 1994 and 1996 in Wisconsin.

Lauer, 1997

University of Wisconsin-Madison
Conclusions

- Silage yield continued to increase with increasing plant density.
- Corn silage quality (Milk per Ton) is best at low plant density.
- An economic (Milk per Acre) trade-off exists for plant density.
  - As plant density increases, silage yield increases, but quality (Milk per Ton) decreases. Thus, Milk per Acre is maximized at 30,000 plants/A.
- Plant density affected hybrid silage quality similarly.
- Should plant density recommendations change moving from south to north in Wisconsin?
  - Optimum corn silage plant density recommendations are similar to corn grain plant densities within Wisconsin.
  - For corn grain, a slight advantage exists for increasing plant densities moving from south to north in Wisconsin.
### Efficacy of Corn Seed Treatments

<table>
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<th>Disease</th>
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<th>Maxim</th>
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<td>E</td>
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<tr>
<td>Aspergillus</td>
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<td>P</td>
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*derived from Pedersen, U. of Illinois*

Lauer, 1997
Corn seed treatment plant density response in Wisconsin.

![Bar chart showing plant density response in Arlington, Fond du Lac, and Janesville for Captan+Apron, Maxim+Apron, and UTC treatments.](chart.png)

- **Arlington**: NS
- **Fond du Lac**: 1500
- **Janesville**: NS

Lauer, 1997
Corn seed treatment yield response in Wisconsin.

Lauer, 1997
How good are you at picking top corn hybrids?

Lauer, 1997

University of Wisconsin-Madison
Hybrid selection should be based on:

- Multi-environment averages
- Consistency

Lauer, 1997
SELECT 97

A program for choosing crop varieties

http://corn.agronomy.wisc.edu

Lauer, 1997

University of Wisconsin-Madison
Top 10 corn hybrid yields in the northern production zone of Wisconsin during 1997.

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Yield (bu/a)</th>
<th>Moisture (%)</th>
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<tr>
<td>Dekalb DK385B</td>
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<td>Dairyland Stealth1289</td>
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<td>Dahlco 360</td>
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<td>NK Brand NX2105</td>
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