In-furrow DAP with Seed and Tolerance to Soil Acidity

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Banded DAP with Seed

• Producers used to banding DAP with wheat for both means of starter and soil acidity alleviation.

• Canola however being a small oil seed is considered much more sensitive.

• 2 locs, Lahoma and Perkins

<table>
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<tr>
<th>Trt</th>
<th>Lbs DAP w/seed</th>
<th>Lbs N/P with seed</th>
<th>N pre-plant</th>
<th>Top-dress N</th>
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<td>0/0</td>
<td>50</td>
<td>75</td>
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<td>0/0</td>
<td>50 N / 30 P</td>
<td>75</td>
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<td>30</td>
<td>5.4/13.8</td>
<td>44.6</td>
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<td>5</td>
<td>60</td>
<td>10.8/27.6</td>
<td>39.2</td>
<td>75</td>
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<td>90</td>
<td>16.2/41.4</td>
<td>33.8</td>
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<td>120</td>
<td>21.6/55.2</td>
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<td>21.6/55.2</td>
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<td>103.4</td>
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</table>
Lahoma January

![NDVI and CV of NDVI graphs]
Lahoma in January

• Visible stand reduction in all plots with 60+ DAP in furrow with seed.
Lahoma Yld and Oil

[Chart showing data for Lahoma Yld and Oil]
2012 Summary

- Lahoma Low STP, Perk no-till low pH
- Perkins, yields <15 bu/ac
- Both locations N only trt had significantly lower oil content.
- At Lahoma stand loss little impact on yield. However environment was very good.
- Recommendation of 30 lbs of DAP with seed for promoted early season growth.
Soil Acidity Impact on Canola

• Across Oklahoma many Canola producers noticed low spots in fields. In many cases the poor growth was in low pH.
• This study evaluated 6 of the most popular cultivars grown in a range of soil pH of 4 to 7.
• Cultivars
  DK 41-10         HC 110
  DK 44-10         HC 115
  DK 46-15         HC 154
41-10 had significant Shattering across all plots (except 2 lowest pH) 15-20 % loss, not accounted for in graph.
High Class % yld loss

HC 154
Max Yield 42.7 bu.

HC 115
Max Yield 24.3 bu.

HC 110
Max Yield 33 bu.

HC 115 had significant Shattering across all plots 20-25% loss, not accounted for in graph.
Soil Acidity x Cultivar

• In several Cultivar pH impacted Maturity/dry down. Higher pH’s matured quicker and resulted in high % shatter.
• Soil pH < 4.5 resulting in 95% loss in all but 1.
• HC 115 Most tolerant
• DK 44-10 Second most tolerant
• Critical Soil pH level of 5.5
Thank you!!!

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