Response of Dark Tobacco to Foliar Calcium Supplements
2009 – MSU West Farm, Murray, KY

- VA 309 set June 10
- 4900 plants/A
  - 40” row spacing
  - 32” plant spacing
- Foliar Ca applied 4 times:
  - July 7, July 24, August 4, August 25
  - 15 gal/A spray volume on 1st 2 app.
  - 30 gal/A spray volume on last 2 app.
- Harvested September 30
  - Fire-cured

- Treatments:
  - 1) Untreated check (no Ca)
  - 2) Calcium chelate (1 lb/A)
  - 3) Helena Ca supplement (1 qt/A)
  - Randomized complete block with 4 replications per treatment
  - Plots 4 rows, 40 ft. long
Response of Dark Tobacco to Foliar Calcium Supplements
2009 – MSU West Farm, Murray, KY

Crop Vigor (1-10)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>September 29 preharvest crop vigor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>8.4</td>
</tr>
<tr>
<td>Ca Chelate</td>
<td>8.6</td>
</tr>
<tr>
<td>Helena Ca</td>
<td>9.1</td>
</tr>
</tbody>
</table>

*Crop vigor on 1-10 scale with 10=best; No visual differences in size of secondary veins between treatments (data not shown)
No statistical differences in any visual observation.
Response of Dark Tobacco to Foliar Calcium Supplements

2009 – MSU West Farm, Murray, KY - Yield

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Total Yield (lbs/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated Check</td>
<td>2746</td>
</tr>
<tr>
<td>Ca Chelate</td>
<td>2559</td>
</tr>
<tr>
<td>Helena Ca</td>
<td>2562</td>
</tr>
</tbody>
</table>

LSD$_{0.05}$ = 225
95
505
575 (total)

Yield (lbs/A)

- Untreated Check: 427, 515, 1805
- Ca Chelate: 340, 523, 1696
- Helena Ca: 309, 514, 1739
Response of Dark Tobacco to Foliar Calcium Supplements
2009 – MSU West Farm, Murray, KY – Quality Grade Index

LSD_{0.05} = 13.6

Grade Index

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Grade Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated Check</td>
<td>52.9</td>
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<tr>
<td>Ca Chelate</td>
<td>53.6</td>
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<tr>
<td>Helena Ca</td>
<td>41.1</td>
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</tbody>
</table>