Starter Fertilizer in Sorghum

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Roger Gribble
2 locations Blackwell and Cherokee

Treatment Structure

<table>
<thead>
<tr>
<th>TRT</th>
<th>Description</th>
<th>N</th>
<th>P205</th>
<th>K2O</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Check, no starter</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>10-34-0 @ 5 gal/ac</td>
<td>5.8</td>
<td>19.72</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>10-34-0 @ 3 gal/ac KTS (potassium thiosulfate)@ 2 gal/ac</td>
<td>3.48</td>
<td>11.82</td>
<td>6</td>
<td>4.3</td>
</tr>
<tr>
<td>4</td>
<td>10-34-0 @ 3 gal/ac ATS (ammonia thiosulfate)@ 2 gal/ac</td>
<td>6.12</td>
<td>11.82</td>
<td>0</td>
<td>5.74</td>
</tr>
<tr>
<td>5</td>
<td>10-34-0 @ 3 gal dissolved potash (2lb 0-0-60 /ac)@ 2 gal/ac</td>
<td>3.48</td>
<td>11.82</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
• Planting Date 4-27-2010
• Initial Soil Test P levels
  – Blackwell 135
  – Cherokee 110
• Initial Soil Test K levels
  – Blackwell 461
  – Cherokee 500
No Significance in Yield across Treatments
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Conclusion

• No significant difference in yield due to treatment at any location.
• Addition of a Starter Fertilizer was of no benefit at either location in 2010.
• Not surprising considering high soil test values. Optimum P >65 K>250.
• No benefit from addition of K, S, or K + S.
Take Home

• More often than not when soil test values are well above 100% sufficient there will be no response to the added nutrient.

• In soils with moderate nutrient levels, response is more likely. However the environment (soil temp and moisture) will drive the response.