Evaluation of GA Green, GAO3L and AT3085RO Peanut Varieties

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ABSTRACT

Research was conducted to evaluate three peanut varieties. The field selected was planted utilizing conservation tillage methods and was non-irrigated. There was much interest in GAO3L and AT 3085RO prior to peanut planting, but limited farmer experience with these varieties. Farmers continue to look for successful peanut varieties comparable to GA Green. Funds for this trial were provided through a Georgia Peanut Commission grant. Due to the drought conditions the plot was planted June 8, 2007, and digging and harvest was delayed due to rain. The experimental design was a randomized complete block. Each replication contained the three varieties: GA Green, Georgia-O3L, and AT3085RO. The eight row plots were planted in a 36 inch row spacing with six seed per linear foot of row with similar row lengths across the trial. Stand counts were taken after emergence. The plot length was measured using GPS. Yield was determined on each rep, and each variety was graded.

METHODS

- The variety trial was planted on June 8, 2007
- Each of the replications contained the three varieties in 8 single row plots
- Planters were set to plant 6 seed/foot of row
- Individual plot length was measured with Dell Axim X50 with attached GPS
- Stand counts were taken two weeks after emergence
- The varieties were inverted on October 22 and picked on November 1
- Hull Scrape Test ran (shown below)

- Individual plots were harvested and weighed
- Each variety graded on the last harvested rep

TRIAL RESULTS

<table>
<thead>
<tr>
<th>Variety</th>
<th>Stand Ct Avg. Per Ft</th>
<th>Yield Per Acre</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA Green</td>
<td>4.9</td>
<td>2631</td>
<td>*</td>
</tr>
<tr>
<td>GAO3L</td>
<td>3.0</td>
<td>2522</td>
<td>*</td>
</tr>
<tr>
<td>AT3085RO</td>
<td>4.1</td>
<td>2222</td>
<td>*</td>
</tr>
<tr>
<td>GAO3L</td>
<td>2.0</td>
<td>2057</td>
<td>*</td>
</tr>
<tr>
<td>AT3085RO</td>
<td>3.4</td>
<td>1440</td>
<td>*</td>
</tr>
<tr>
<td>GA Green</td>
<td>4.4</td>
<td>1878</td>
<td>*</td>
</tr>
<tr>
<td>GA Green</td>
<td>3.9</td>
<td>1574</td>
<td>71</td>
</tr>
<tr>
<td>GAO3L</td>
<td>2.3</td>
<td>1921</td>
<td>68</td>
</tr>
<tr>
<td>AT3085RO</td>
<td>4.0</td>
<td>2356</td>
<td>66</td>
</tr>
</tbody>
</table>

* Sample pulled on last replication for grade

CONCLUSIONS

- More field variability than expected
- Planting and harvesting delays impacted yield and grade
- All three varieties comparable in yield and grade
- GAO3L (2163 lb/Ac) was the highest yield in the trial followed by GA Green (2021 lb/Ac) and AT3085 (2012 lb/Ac)

FARMER PRODUCTION PRACTICES

- Strip-Till following cotton
- Herbicides: Roundup applied after planting
  Cadre applied 28 days after ground crack
  Ultra Blazer applied
- Insecticides: Temik applied in-furrow
- Fungicides: 2 Bravo, 3 Folicur and 1 Bravo