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VARIETIES OF CORN.

OBJECT OF EXPERIMENT.

(a) To ascertain the best yielding variety.
(b) To find a good early variety.

The corn was planted on plots 1–40 of an acre large, and in checks 3x5 feet. A fertilizer, composed of 200 lbs. acid phosphate, 66 lbs. muriate potash and 66 lbs. sulphate of ammonia, was applied in the drill before planting, at the rate of 300 lbs. per acre.

Four plots were planted in Experiment Station Yellow. Any difference in the fertility of the soil would be shown by the difference in the yield of those plots. A perfect stand was not secured and this with some inequality of the soil prevents drawing any reliable conclusions as to the best variety.

Cocke's Prolific, Blount's Prolific, Experiment Station Yellow and Pride of America gave best yields in the order named. Cocke's Prolific and Blount's Prolific bear from 2 to 3 small ears to the stalk. With the other varieties named the ears are larger, and two to the stalk an exception.

The best varieties of early corn were Clarke's Early Mastodon (yellow), Early Eclipse (yellow), Gentry's Early Market (white) and Improved Golden Dent.

All varieties were planted April 8th. The shuck on these four was dry August 7th. To the farmer whose corn crib is low in the Spring, it will be quite a saving to plant one of these early varieties.

By planting early, any one of these would be dry by the first of August.
### VINTERCULTURAL EXPERIMENTS WITH FERTILIZERS ON COTTON.

The object of this experiment was to ascertain whether it would pay to apply nitrogenous fertilizers interculturally.

Six rows 210 feet long by 3½ feet wide, equal to 1-0 of an acre, were used. Just before planting, the following mixture of fertilizers was applied to each plot, at the rate of 200 pounds per acre: 200 pounds Acid Phosphate; 66 pounds Muriate Potash; 66 pounds Sulphate Ammonia.

As soon as the cotton was up, it was chopped and sided with a heel scrape. About June 1st the stalks of cotton in each row were counted, and then all rows but one thinned to 90 stalks. The 5th row of plot 6 had only 76 stalks. The several numbers of stalks in this row probably accounts for the small yield of that plot.

On June 22nd and July 7th the cotton seed meal and nitrate soda were scattered broadcast and the cotton plowed with a large heel scrape. All the plots were the same size and color up to July 7th and after that date the plots fertilized interculturally became much larger and had better color than the plots which were not fertilized after planting.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Experiment Station Yellow...</td>
<td>30.7</td>
<td>24.0</td>
<td>218</td>
<td>17.1</td>
<td>June 24th</td>
</tr>
<tr>
<td>2</td>
<td>Blount's Prolific</td>
<td>30.9</td>
<td>24.3</td>
<td>213</td>
<td>17.3</td>
<td>&quot; 18th</td>
</tr>
<tr>
<td>3</td>
<td>Clayton Bread Corn</td>
<td>28.3</td>
<td>20.5</td>
<td>211</td>
<td>14.1</td>
<td>&quot; 24th</td>
</tr>
<tr>
<td>4</td>
<td>ocke's Prolific</td>
<td>41.6</td>
<td>32.0</td>
<td>231</td>
<td>22.8</td>
<td>&quot; 23rd</td>
</tr>
<tr>
<td>5</td>
<td>Clarke's Early Mastadon</td>
<td>24.7</td>
<td>19.0</td>
<td>23</td>
<td>13.5</td>
<td>&quot; 14th</td>
</tr>
<tr>
<td>6</td>
<td>Experiment Station Yellow...</td>
<td>30.4</td>
<td>21.6</td>
<td>28</td>
<td>15.4</td>
<td>&quot;</td>
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<tr>
<td>7</td>
<td>Early Eclipse (Y)</td>
<td>23.1</td>
<td>18.6</td>
<td>191</td>
<td>13.2</td>
<td>June 9th</td>
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<tr>
<td>8</td>
<td>Gentry's Early Market</td>
<td>23.4</td>
<td>18.1</td>
<td>217</td>
<td>12.9</td>
<td>&quot; 16th</td>
</tr>
<tr>
<td>9</td>
<td>Giant Broad Grain</td>
<td>26.6</td>
<td>20.1</td>
<td>206</td>
<td>14.3</td>
<td>&quot; 20th</td>
</tr>
<tr>
<td>10</td>
<td>Hickory King</td>
<td>22.6</td>
<td>17.8</td>
<td>216</td>
<td>12.7</td>
<td>&quot;</td>
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<tr>
<td>11</td>
<td>Experiment Station Yellow...</td>
<td>22.6</td>
<td>17.7</td>
<td>216</td>
<td>12.6</td>
<td>&quot;</td>
</tr>
<tr>
<td>12</td>
<td>Improved Golden Dent</td>
<td>21.8</td>
<td>17.7</td>
<td>188</td>
<td>12.6</td>
<td>&quot; 20th</td>
</tr>
<tr>
<td>13</td>
<td>Pride of America</td>
<td>24.1</td>
<td>19.9</td>
<td>174</td>
<td>14.2</td>
<td>&quot; 26th</td>
</tr>
<tr>
<td>14</td>
<td>Piasa King</td>
<td>21.7</td>
<td>16.9</td>
<td>221</td>
<td>12.1</td>
<td>&quot; 23rd</td>
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<tr>
<td>15</td>
<td>Experiment Station Yellow...</td>
<td>22.6</td>
<td>17.0</td>
<td>247</td>
<td>12.1</td>
<td>&quot;</td>
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<tr>
<td>16</td>
<td>Ross Improved</td>
<td>24.7</td>
<td>19.5</td>
<td>21</td>
<td>13.9</td>
<td>July 1st</td>
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<tr>
<td>17</td>
<td>Shoe Peg White</td>
<td>21.8</td>
<td>18.0</td>
<td>174</td>
<td>12.8</td>
<td>June 24th</td>
</tr>
<tr>
<td>18</td>
<td>Virginia Gourd Seed</td>
<td>24.2</td>
<td>18.6</td>
<td>231</td>
<td>13.2</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

INTERCULTURAL EXPERIMENTS WITH FERTILIZERS ON COTTON.
CONCLUSIONS.

1st. It pays to apply nitrogenous fertilizers to cotton on sandy land, provided there are good rains following their applications.

2nd. 200 pounds applied in June will be as profitable as 100 pounds in June and 100 pounds in July.

The following table shows the yield per plot and the profit from each plot fertilized after planting.

In calculating profit, the cost of nitrate of soda laid down in Auburn is used, and cotton seed meal is valued at $22 per ton. The seed cotton is valued at .02½ cents per pound.

The following table shows the results of this experiment:

<table>
<thead>
<tr>
<th>Plot No.</th>
<th>June 22nd Name and quantity of fertilizers applied interculturally</th>
<th>July 7th Name and quantity of fertilizers applied interculturally</th>
<th>Pounds yield seed cotton per plot</th>
<th>Pounds seed cotton per Acre</th>
<th>Value of fertilizers per Acre</th>
<th>Profit per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100 lbs cotton seed meal</td>
<td>100 lbs cotton seed meal</td>
<td>59.9</td>
<td>898.5</td>
<td>2.20</td>
<td>2.33</td>
</tr>
<tr>
<td>2</td>
<td>200 Check</td>
<td>200 Check</td>
<td>70.1</td>
<td>1051.5</td>
<td>4.40</td>
<td>3.95</td>
</tr>
<tr>
<td>3</td>
<td>450 lbs nitrate soda 50 lbs nitrate soda</td>
<td>100 lbs cotton seed meal</td>
<td>67.6</td>
<td>1014</td>
<td>2.82</td>
<td>4.60</td>
</tr>
<tr>
<td>4</td>
<td>100 Check</td>
<td>100 Check</td>
<td>63.6</td>
<td>954</td>
<td>5.64</td>
<td>.28</td>
</tr>
<tr>
<td>5</td>
<td>200 lbs cotton seed meal</td>
<td></td>
<td>45.5</td>
<td>682.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>60.9</td>
<td>913.5</td>
<td>2.20</td>
<td>2.71</td>
</tr>
</tbody>
</table>

EXPERIMENTS WITH COTTON, 1893.

A COMPARISON OF VARIETIES.

This experiment consists of a comparison of twenty varieties of cotton. In preparing the land for planting, all the plots were fertilized alike. The rows were laid-off 3½ feet wide, and the cotton planted in checks 3½ feet apart. The culture of every plot, 1–20 of an acre, was the same. The cotton was carefully picked and weighed, and the following tabulated statement shows not only the total yield per acre, but the yield per acre of each variety at every picking, and the date of same. Each variety was kept to itself until the time of ginning, when it was re-weighed and ginned separately.

The following is the table, showing list of varieties:
### Names of Varieties.

<table>
<thead>
<tr>
<th>Plot No.</th>
<th>Names of Varieties</th>
<th>Yield per acre at different pickings</th>
<th>1st Picking</th>
<th>2nd Picking</th>
<th>3rd Picking</th>
<th>4th Picking</th>
<th>Yield of seed cotton per acre when ginned</th>
<th>Yield of lint cotton per acre when ginned</th>
<th>Yield of lint cotton per acre</th>
<th>Per cent. of lint</th>
<th>No. of stalks per acre</th>
<th>No. of stalks per plot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Peerless (seed from C. M. Cory)</td>
<td>1194</td>
<td>38.8</td>
<td>40.4</td>
<td>34.0</td>
<td>38.5</td>
<td>340</td>
<td>390</td>
<td>30.4</td>
<td>36.2</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>2</td>
<td>Coltharps Eureka</td>
<td>1346</td>
<td>36.8</td>
<td>38.0</td>
<td>32.5</td>
<td>37.0</td>
<td>1300</td>
<td>1375</td>
<td>53.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>3</td>
<td>Coltharps Pride</td>
<td>1385</td>
<td>37.0</td>
<td>38.5</td>
<td>33.0</td>
<td>38.0</td>
<td>1500</td>
<td>1575</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>4</td>
<td>Dalkeiths Eureka</td>
<td>1236</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>5</td>
<td>Herlong</td>
<td>1278</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>6</td>
<td>Hawkins</td>
<td>1224</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>7</td>
<td>Jones' Long Staple</td>
<td>1240</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>8</td>
<td>Mathews Long Staple</td>
<td>1256</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>9</td>
<td>Okra</td>
<td>1278</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>10</td>
<td>Peerless (seed from C. M. Cory)</td>
<td>1288</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>11</td>
<td>Peerkin (M. W. Johnson Seed Co)</td>
<td>1240</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>12</td>
<td>Peerless (old seed)</td>
<td>1256</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
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<tr>
<td>13</td>
<td>Peeler</td>
<td>1240</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>14</td>
<td>Petit Gulf</td>
<td>1278</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
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</tr>
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<td>Truitt</td>
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<td>38.0</td>
<td>33.0</td>
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<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
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<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
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<td>W. A. Cook</td>
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<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>18</td>
<td>Welborn's Pet</td>
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<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>19</td>
<td>Whatley's Improved</td>
<td>1278</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
<tr>
<td>20</td>
<td>Peerless (seed from C. M. Cory)</td>
<td>1278</td>
<td>36.0</td>
<td>38.0</td>
<td>33.0</td>
<td>35.0</td>
<td>1000</td>
<td>1075</td>
<td>52.2</td>
<td>38.1</td>
<td>2600</td>
<td>130</td>
</tr>
</tbody>
</table>
The following table shows the classification and grade of each kind of the twenty varieties of cotton as furnished by Mr. C. E. Porter, cotton broker of Opelika, Ala., whose long experience and good judgment guaranteed a correct report. A sample of the lint of each variety was taken and numbered so as to compare with the numbers on our record, sent to Mr. Porter and his report which follows, it is hoped will prove of interest to cotton producers:

<table>
<thead>
<tr>
<th>Plot No.</th>
<th>Classification</th>
<th>Length of staple</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strict Low Middling</td>
<td>3/4 inch</td>
<td>Very weak</td>
</tr>
<tr>
<td>2</td>
<td>&quot;</td>
<td>5-16 to 1 3/4&quot;</td>
<td>Irregular, but strong</td>
</tr>
<tr>
<td>3</td>
<td>&quot;</td>
<td>1 inch</td>
<td>Regular and fine lint</td>
</tr>
<tr>
<td>4</td>
<td>Good Middling</td>
<td>1 3-16 to 1 1/4&quot;</td>
<td>Irregular, moderate strength</td>
</tr>
<tr>
<td>5</td>
<td>Strict Middling</td>
<td>3/4 to 1 1/4&quot;</td>
<td>Very irregular</td>
</tr>
<tr>
<td>6</td>
<td>&quot; Low &quot;</td>
<td>5/8 inch</td>
<td>Very weak, poor staple</td>
</tr>
<tr>
<td>7</td>
<td>Strict Middling</td>
<td>1 inch</td>
<td>Moderate strength</td>
</tr>
<tr>
<td>8</td>
<td>&quot;</td>
<td>1-16 inch</td>
<td>Strong and regular</td>
</tr>
<tr>
<td>9</td>
<td>Middling</td>
<td>1 inch</td>
<td>Regular and fine lint</td>
</tr>
<tr>
<td>10</td>
<td>Strict Middling</td>
<td>1 3/4 to 1 3/8&quot;</td>
<td>Weak lint</td>
</tr>
<tr>
<td>11</td>
<td>&quot;</td>
<td>3/4 to 3/8&quot;</td>
<td>Irregular and fine lint</td>
</tr>
<tr>
<td>12</td>
<td>Good Middling</td>
<td>1 1/4 inch</td>
<td>Regular and strong</td>
</tr>
<tr>
<td>13</td>
<td>Middling</td>
<td>1 5-16 to 1 in</td>
<td>Fine lint and irregular</td>
</tr>
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<td>14</td>
<td>Strict Middling</td>
<td>3/8 to 1 inch</td>
<td>Irregular, very fine lint</td>
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<tr>
<td>15</td>
<td>&quot;</td>
<td>5/8 to 1 inch</td>
<td>Irregular, fair strength</td>
</tr>
<tr>
<td>16</td>
<td>Middling</td>
<td>1 1/4 inch</td>
<td>Regular and strong</td>
</tr>
<tr>
<td>17</td>
<td>Good Middling</td>
<td>1 1-16 to 1 1/8&quot;</td>
<td>Very irregular, but strong</td>
</tr>
<tr>
<td>18</td>
<td>Middling</td>
<td>3/8 inch</td>
<td>Very weak staple</td>
</tr>
<tr>
<td>19</td>
<td>Strict Low Middling</td>
<td>1 3-16 inch</td>
<td>Very weak staple</td>
</tr>
<tr>
<td>20</td>
<td>Strict Middling</td>
<td>7/8 inch</td>
<td>Very fine and regular staple</td>
</tr>
</tbody>
</table>