July 2017

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BEST VARIETIES OF OATS.

JAMES WILSON, C. F. CURTISS, D. A. KENT.

With a view to ascertaining what varieties of oats are best adapted to our soil and climate, eleven of the most promising varieties that could be obtained were grown for a comparative test as to yield, quality and ability to withstand attacks of rust and other diseases. The ground used was a piece of fall plowed corn ground, harrowed once before sowing and twice afterward. The soil was sandy loam and had been under cultivation for a number of years. The seeding was done early, April 8th and 10th, and the soil was too wet to admit of the use of a cultivator.

The following table gives the varieties sown, the yield per acre, time of planting and harvesting, and weight per bushel of seed and crop:

<table>
<thead>
<tr>
<th>VARIETY</th>
<th>Date of sowing</th>
<th>Seed per acre bushels</th>
<th>Wt. of seed lbs per bu.</th>
<th>Date of harvesting</th>
<th>Yield per acre</th>
<th>Weight per bushel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Texas Rust Proof Red</td>
<td>April 8</td>
<td>2 1/2</td>
<td>40</td>
<td>July 17</td>
<td>45</td>
<td>35</td>
</tr>
<tr>
<td>2 White Bonanza</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>36</td>
<td>&quot;</td>
<td>50</td>
<td>34</td>
</tr>
<tr>
<td>3 American Banner</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>&quot;</td>
<td>17</td>
<td>57</td>
<td>33 3/4</td>
</tr>
<tr>
<td>4 Archangel</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>42</td>
<td>&quot;</td>
<td>54</td>
<td>39 1/2</td>
</tr>
<tr>
<td>5 White Wonder</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>38</td>
<td>&quot;</td>
<td>55</td>
<td>40</td>
</tr>
<tr>
<td>6 White Schonen</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>36</td>
<td>&quot;</td>
<td>52</td>
<td>35 1/4</td>
</tr>
<tr>
<td>7 Prize Cluster</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>36</td>
<td>&quot;</td>
<td>45</td>
<td>34 1/4</td>
</tr>
<tr>
<td>8 Egyptian Oats</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>40</td>
<td>&quot;</td>
<td>46</td>
<td>37 3/4</td>
</tr>
<tr>
<td>9 Giant Side Oats</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>28</td>
<td>&quot;</td>
<td>57</td>
<td>36</td>
</tr>
<tr>
<td>10 Early Everitt</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>28</td>
<td>&quot;</td>
<td>58</td>
<td>35</td>
</tr>
<tr>
<td>11 Improved American</td>
<td>&quot;</td>
<td>2 1/2</td>
<td>30</td>
<td>&quot;</td>
<td>54</td>
<td>33</td>
</tr>
</tbody>
</table>

The plats contained from one to two acres each. The early part of the season was favorable for germination, but the drouth of May temporarily retarded growth. All varieties did well, however, after the June rains, and during the last half of the month the growth was rapid. Cool weather from July 1st to the time of harvesting made the conditions favorable for maturing the crop.
Texas Rust Proof Red did not stool well, and observations during the growing season led to the conclusion that this variety should be sown at the rate of about three bushels per acre. It grew light stiff straw, ripening at the height of 28 inches, all standing. Although said to be rust-proof, it was the first and only variety to rust to any considerable extent. Smut also appeared in greater abundance on this than any of the other varieties. Although the yield was fair, the Texas Rust Proof Red does not seem to be adapted to the conditions of this locality. The seed was obtained from a Wisconsin seedsman.

White Bonanza grew vigorously and ripened at 36 inches in height. This variety was free from smut and only slightly affected with rust. The straw is medium in size, but seemed weak, and lodged in several spots.

American Banner was one of the later varieties to ripen and grew heavy and even. It stood well and gave a good yield, but the berry is not very plump and is covered by a heavy husk.

Archangel has a small, but very firm, well developed grain. It matured early, grew to a medium height, gave a good quality of oats, but lodged badly. Was affected by rust, but only slightly.

White Wonder, when growing, looked very much like the Archangel and also has a very plump, well-filled berry. It also lodged quite badly.

White Schonen grew rank and vigorous, attaining a height of 46 inches. The straw appeared stiff and did not lodge. The berry is not so uniform in size or so well filled as either of the two last named varieties.

Prize Cluster is also a large rank growing variety. The straw grew heavy and stood quite well, but the grain did not fill well nor was the yield quite up to the average.

Egyptian is a Canadian variety. It grew nicely, but did not stand well. Was badly lodged, while the oats on each side stood well. The heads were long and the grain that matured standing, was well filled.

The Giant Side oat is a promising variety. The heads were unusually long and heavily laden. The stem grew tall and heavy and stood up well.
Early Everitt did well. The growth was even and the straw stood well. The berry is large and has a heavy husk. It will be seen that there was a marked improvement in the crop over the quality of the seed sown.

Improved American looked nice while growing and stood up well, but did not fill well enough to give a very high quality of grain.

The seed of the last two varieties was grown on the Station grounds the previous year. The Egyptian seed came from Toronto, Canada, and the other varieties came from Indiana, Wisconsin and Minnesota seedsmen. While no abnormally large yield was obtained from any of the varieties, the general average was good and the high quality of all is noticeable. The soil was rather heavy and not properly drained, and hence the conditions were somewhat unfavorable. Only one variety, the "Texas Rust Proof Red," was affected by rust to any extent, but none of the above varieties are believed to be rust-proof. Some varieties as noted lodged so badly that they cannot be recommended. Others stood well in this trial. The quality of the grain is also important. It is disappointing that the two varieties yielding the best quality should be varieties that went down easily. One trial, however, is not conclusive, and the test will be repeated. The Early Everitt and Giant Side oats did well, and in addition to a satisfactory yield, their straw seems to be stiff and well adapted to our rich soil.