REGISTRATION OF CROP GERMPLASMS

Table 1. Plant characteristics of six smut resistant pearl millet inbred lines recorded in 1984 summer at ICRISAT Center, Patancheru.

<table>
<thead>
<tr>
<th>Line</th>
<th>Reg. no.</th>
<th>Smut severity†</th>
<th>Time to 50% flowering (d)</th>
<th>Plant height (cm)</th>
<th>Tiller per plant</th>
<th>Head length (dm)</th>
<th>1000-grain mass (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICML 5</td>
<td>GP-9</td>
<td>&lt;1</td>
<td>48-52</td>
<td>130-150</td>
<td>1-3</td>
<td>20-25</td>
<td>9.0</td>
</tr>
<tr>
<td>ICML 6</td>
<td>GP-10</td>
<td>&lt;1</td>
<td>51-55</td>
<td>85-100</td>
<td>4-7</td>
<td>25-30</td>
<td>6.0</td>
</tr>
<tr>
<td>ICML 7</td>
<td>GP-11</td>
<td>&lt;1</td>
<td>42-46</td>
<td>135-145</td>
<td>1-3</td>
<td>20-24</td>
<td>9.8</td>
</tr>
<tr>
<td>ICML 8</td>
<td>GP-12</td>
<td>&lt;1</td>
<td>51-55</td>
<td>140-160</td>
<td>2-4</td>
<td>20-24</td>
<td>8.1</td>
</tr>
<tr>
<td>ICML 9</td>
<td>GP-13</td>
<td>&lt;1</td>
<td>43-47</td>
<td>150-160</td>
<td>1-3</td>
<td>25-28</td>
<td>7.6</td>
</tr>
<tr>
<td>ICML 10</td>
<td>GP-14</td>
<td>&lt;1</td>
<td>58-62</td>
<td>160-180</td>
<td>1-3</td>
<td>22-26</td>
<td>8.3</td>
</tr>
<tr>
<td>ICMS 7703</td>
<td></td>
<td>25‡</td>
<td>45-47</td>
<td>127-143</td>
<td>4-5</td>
<td>20-22</td>
<td>8.3</td>
</tr>
<tr>
<td>WC-C75</td>
<td></td>
<td>23</td>
<td>45-47</td>
<td>124-140</td>
<td>4-5</td>
<td>19-21</td>
<td>9.0</td>
</tr>
</tbody>
</table>

† Mean of 4 to 7 yr of testing in the Int. Pearl Millet Smut Nursery (IPMSN) at Hisar, Patancheru, Jamnagar (India), and Banjul (Senegal).
‡ Mean based on screening at two locations (Hisar and Patancheru) in India during the 1984 rainy season.

with 46% in the susceptible check (1). These lines have also shown resistance to downy mildew [caused by Sclerospora graminicola (Sacc.) Shroet] at the locations in India.

Compared with the two standard check cultivars, 'ICMS 7703' and 'WC-C75', these six lines have similar maturity range except ICML 6, ICML 8, and ICML 10, which are more advanced in agronomic qualities than some of the early checking lines. ICML 6 is short statured and has more tillers and a longer head (Table 1). Seed color of the lines varies from gray to gray-brown to cream, seed shape from obovate to globular to lanceolate, and seed mass from 6.0 to 9.8 g per 1000 seed.

Seed of these lines are available on request from the ICRISAT, Patancheru P.O., Andhra Pradesh 502324, India.

R. P. THAKUR* AND S. B. KING (2)

References and Notes


REGISTRATION OF CU-2 TOBACCO GERMPLASM

Tobacco (Nicotiana tabacum L.) breeding line CU-2 (Reg. no. GP-29) (PI 511808) is an insect resistant tobacco breeding line developed and released 26 May, 1986 by Clemson University at the Pee Dee Research and Education Center.

Early studies have shown that Tobacco Introduction (TI) 1112 was resistant to the tobacco hornworm (Manduca sexta). In 1980, a commercial cultivar 'Coker 347' was crossed with TI 1112 at the Pee Dee Research and Education Center. CU-2 was resistant to tobacco budworm, hornworm, and aphid in the field, and sustained 83 and 33% less hornworm and aphid damage, respectively.

Cu-2 was resistant to tobacco budworm, hornworm, and aphid in the field, and sustained 83 and 33% less hornworm and aphid damage, respectively, than NC 2326. Both tobaccos averaged 26 leaves/plant.

Cu-2 has leaf trichomes without glandular heads or exudates, which may be a disadvantage since they have been associated with tobacco flavor (2). CU-2 is a nicotine converter, and 80% of the total alkaloid dry wt (of cured leaf) was nornicotine. This undesirable characteristic may be removed with additional breeding selections.

Seed for research and breeding purposes will be maintained and distributed by the Clemson University Research and Education Center, Florence, SC 29501.

R. P. THAKUR* AND S. B. KING (2)

References and Notes

10. Clemson Univ., Pee Dee Res. and Education Ctr., Forsyth Tech. Contribution no. 2551 of the South Carolina Agricultural Experiment Station. Registration by the CSSA. Accepted 30 Oct. 1987. *Corresponding author.