Table 1. Average performance of Rapidan barley compared for a 3-year period with other awnleted cultivars at 12 to 16 locations throughout the southeastern United States.*

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Yield</th>
<th>Test weight</th>
<th>Date headed</th>
<th>Plant height</th>
<th>Lodging</th>
<th>Lead rust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapidan</td>
<td>3,565</td>
<td>6.62</td>
<td>17</td>
<td>93</td>
<td>32</td>
<td>8</td>
</tr>
<tr>
<td>Hanover</td>
<td>3,525</td>
<td>6.60</td>
<td>16</td>
<td>96</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td>Wong</td>
<td>2,809</td>
<td>6.78</td>
<td>105</td>
<td>66</td>
<td>64</td>
<td>4</td>
</tr>
<tr>
<td>Jefferson</td>
<td>3,153</td>
<td>6.96</td>
<td>21</td>
<td>59</td>
<td>15</td>
<td>25</td>
</tr>
</tbody>
</table>


REGISTRATION OF STEPTOE BARLEY1
(Reg. No. 134)
C. E. Muir and R. A. Nilan2

'STEPTOE' barley (Hordeum vulgare L.), CI 15299 was developed in the Department of Agronomy and Soils, Washington State University. The variety originated from the cross 'Cebada Capa'/'Wong'/awnleted 'Hudson' selection. The Cebada Capa/Wong selection used in the cross had short straw, good standing ability, and resistance to leaf rust and powdery mildew. It lacked winterhardiness and was very susceptible to scald. The other parent, which originated from an awnleted plant selected from a farmer's field of Hudson, appeared to be similar to Hudson in all respects except head type. It had scald resistance and good winterhardiness.

Rapidan is a six-rowed, awnleted cultivar of winter growth habit. It matures in midseason and is short to midtall. The spike is dense, midlong, erect, and has kernels which are short to midlong, with long-haired rachilla. The short awns on the central florets are rough. It is moderately resistant to leaf rust, resistant to some races of scald, and although resistant to powdery mildew under field conditions, it is susceptible to seedling reaction under greenhouse conditions. Under some conditions, it has been moderately susceptible to net and spot blotch.

The performance of Rapidan in the Semi-hardy Barley Nursery grown annually at from 12 to 16 locations throughout the southeastern United States is presented in Table 1.

Rapidan is slightly more winter hardy than 'Hanover', but is slightly less hardy than Wong. When compared at 41 locations in 1968 in the Uniform Barley Winterhardiness Nursery, Rapidan had an average survival of 82% compared with 85% and 57% for Hanover and Wong, respectively.

Breeder seed will be maintained by the Research Division, Virginia Polytechnic Institute and State University.

REGISTRATION OF VANGUARD BARLEY1
(Reg. No. 135)
R. A. Nilan and C. E. Muir2

'Vanguard' barley (Hordeum vulgare L.), CI 11868 was developed in the Department of Agronomy and Soils, Washington State University. The variety originated from a 1957 cross ('Bethes' × 'Haisa II') × 'Piroline.' The selection, 7155-60, was made in 1960 and was in the F4 generation when approved for release.

Vanguard is a two-rowed, rough-awned, colorless aleurone, spring, malting barley. Most plant and kernel characteristics are similar to those of Piroline. However, Vanguard kernels are slightly smaller, the hulls are slightly more wrinkled, and the crease is broader in the basal two-thirds of the kernel. Like Piroline, Vanguard kernels have short-haired rachilla.

Vanguard is adapted to the two-row malting barley areas of eastern Washington and northern Idaho but also may be produced in Montana. Vanguard was approved for release in 1970 by the Washington, Idaho, and Oregon Agricultural Experiment Stations and was released to growers in May 1971.

Vanguard was tested agronomically at numerous locations in eastern Washington for 10 years and in the USDA Western barley nursery in the Western Barley Nursery for 8 years. Two years of commercial malting tests were conducted through the auspices of the Malting Barley Improvement Association and Vanguard was designated as a malting barley in 1971. Compared to Piroline, Vanguard averages about 5% more in yield and is slightly more lodging resistant. In terms of malting quality, it produces somewhat higher extract, soluble nitrogen, and alpha amylase than Piroline.

Breeder seed will be maintained by Washington State University.

REGISTRATION OF UC 566 BARLEY1
(Reg. No. 137)
C. W. Schaller and J. D. Prato2

'UC 566' barley (Hordeum vulgare L. emend. Lam.), CI 15477, was developed at the University of California, Davis. It is a composite of 19 F1 generation lines from the backcross, 'CM 67/2 'Numar.' The original cross was made in 1966 and the final selection completed in 1972.

UC 566 is a six-rowed, smooth-awned, early maturing, spring-type feed barley. It has short, moderately stiff straw and medium-dense, erect spikes. The kernels are large with medium to dark blue aleurone and long-haired rachilla. Except for reaction to barley yellow dwarf virus and slightly weaker straw, it is similar to the recurrent parent, Numar.

UC 566 is highly tolerant to the barley yellow dwarf virus, having the Yd allele for resistance from CM 67. Infection will occur, with the infected plants exhibiting limited discoloration (yellowing), but little or no dwarfing. Symptom expression is similar to the resistant parent.


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