Potato Test Selections for Tablestock Use

Invention Summary

New tablestock potato selections with attractive appearance that yield well and have few pickouts or internal defects. These selections are available for evaluation.

Technology Overview

The Cornell potato breeding program has developed new potato test selections that present great features for tablestock use:

**NY149** is a yellow-fleshed, mid-late season tablestock clone with pink eyes and slightly-textured skin. NY149 tubers are smaller than Yukon Gold and exhibit much less hollow heart; yields are similar to Yukon Gold. Tubers do not darken and only slough slightly after boiling. NY149 is **resistant to Ro1** of the golden nematode and presents **moderate resistance to common scab**. Tuber dormancy is about one week longer than ‘Atlantic’.

**NY151** is a smooth-skinned, late-season round white tablestock selection. It features tubers that do not darken or slough appreciably after boiling. NY151 is **resistant to race Ro1** of the golden nematode, and shows **moderate resistance to common scab**. It has very **good marketable yield**, averaging 104% of the cultivar ‘Atlantic’ in Tompkins County, New York. Tuber dormancy is comparable to ‘Atlantic’.

**NY155** is an early-season tablestock selection with light pink skin. It features large, uniform oblong tubers with shallow eyes. Its tubers do not darken or slough appreciably after boiling. NY155 is moderately **resistant to common scab** and susceptible to the golden nematode. It demonstrates **good-yielding ability**, with marketable yield averaging 103% of ‘Chieftain’ in Tompkins County, New York. NY155 tuber dormancy is about 2 weeks longer than ‘Atlantic’.

**NY161** is a yellow-fleshed mid-late season tablestock clone with smooth skin and purple splashes around the eyes. It is **moderately resistant to common scab** and susceptible to the golden nematode. NY161 demonstrates excellent-yielding ability, averaging 103% of the marketable yield of the cultivar ‘Atlantic’ and 90% of the cultivar ‘Chieftain’ in Tompkins County, New York. Tuber dormancy is two weeks longer than for ‘Atlantic’.

Potential Applications

Potato selections suitable for fresh market production.

Advantages

- High yields, attractive appearance;
- Several are resistant to race 1 Ro1 of the golden nematode;
- A low frequency of pickouts due to knobs, misshapes and growth cracks, as well as a low level of internal defects;
- Adaptability to many growing areas and climate conditions.

(Continued on next page)
<table>
<thead>
<tr>
<th>Exp #</th>
<th>Skin</th>
<th>Flesh</th>
<th>Yield¹</th>
<th>Tuber size</th>
<th>Tuber dormancy²</th>
<th>Maturity</th>
<th>Scab Resistance</th>
<th>Golden Nematode Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>NY149</td>
<td>Relatively smooth, pink Eyes</td>
<td>Yellow</td>
<td>Similar to Yukon Gold</td>
<td>Small</td>
<td>1 week</td>
<td>Mid-late</td>
<td>Moderate</td>
<td>Ro1</td>
</tr>
<tr>
<td>NY151</td>
<td>White, Smooth</td>
<td>White</td>
<td>104% of Atlantic</td>
<td>Mid-size</td>
<td>0 week</td>
<td>Late</td>
<td>Moderate</td>
<td>Ro1</td>
</tr>
<tr>
<td>NY155</td>
<td>Light Pink</td>
<td>White</td>
<td>103% of Chieftain</td>
<td>Large</td>
<td>2 weeks</td>
<td>Early</td>
<td>Moderate</td>
<td>Susceptible</td>
</tr>
<tr>
<td>NY161</td>
<td>Smooth, Purple splashes around the eyes</td>
<td>Yellow</td>
<td>103% of Atlantic</td>
<td>-</td>
<td>2 weeks</td>
<td>Mid-late</td>
<td>Moderate</td>
<td>Susceptible</td>
</tr>
</tbody>
</table>

¹ Yield compared to the marketable yield of the cultivar ‘Atlantic’ in Tompkins County, NY (*compared to ‘Chieftain’ for NY155 and NY159)  
² Tuber dormancy compared to the cultivar ‘Atlantic’: number of additional weeks.