

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'.

NY140 is a high yielding, lightly textured, white-skinned, late-season clone for both potato-chip and tablestock use. Its tubers are large and remain white after boiling and do not slough significantly. It is **resistant to blackspot bruise, resistant to both races Ro1 and Ro2** of the golden nematode and **moderately resistant to early and late blight**. It is susceptible to common scab. Its marketable yields have averaged 115% of the cultivar 'Atlantic' in Tompkins County, New York. Tuber dormancy is 6 weeks longer than for 'Atlantic'.

Inventors:

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Type:

Plant varieties

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Cornell Reference:

D-5150 (NY140)

D-7002 (NY149)

D-6992 (NY151)

D-6678 (NY155)

D-7405 (NY161)

Exp #	Skin	Flesh	Yield ¹	Tuber size	Tuber dormancy ²	Maturity	Scab Resistance	Golden Nematode Resistance
NY149	Relatively smooth, pink Eyes	Yellow	Similar to Yukon Gold	Small	1 week	Mid-late	Moderate	Ro1
NY151	White, Smooth	White	104% of Atlantic	Mid-size	0 week	Late	Moderate	Ro1
NY155	Light Pink	White	103% of Chieftain	Large	2 weeks	Early	Moderate	Susceptible
NY161	Smooth, Purple splashes around the eyes	Yellow	103% of Atlantic	-	2 weeks	Mid-late	Moderate	Susceptible
NY140	White	White	115% of Atlantic	Large	6 weeks	Late	Susceptible	Ro1, Ro2

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.

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.