

Potato Test Selections for Chipping Use

Invention Summary

New potato test selections for chipping with very good to excellent fry color out of long-term cold storage, low pickouts, and adapted to the Northeastern U.S. as well as comparable environments. These selections are available for evaluation.

Technology Overview

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

Exp #	Chip color from 44F	Specific Gravity ¹	Yield ²	Maturity	Scab Resistance	G. Nematode Resistance
NY157	Good	0.006 less than Atlantic	92%	Mid-season	Moderate	Ro1
NY162	Excellent	0.005 less than Atlantic	94%	Late season	Moderate	Ro1

NY157 is a mid-season chipstock clone that is **resistant to race Ro1** of the golden nematode and presents **moderate resistance to scab**. It demonstrates acceptable yielding ability, averaging 92% of the marketable yield of the cultivar ‘Atlantic’ in Tompkins County, New York. It presents also **good chip color** from 44F storage in December, January and February compared to ‘Snowden’.

NY162 is a late season chipstock clone that is **resistant to race Ro1** of the golden nematode and presents **intermediate reaction to common scab**. The tubers are round to oblong with moderately textured skin. NY162 demonstrates acceptable yielding ability, averaging 94% of the marketable yield of the cultivar ‘Atlantic’ in Tompkins County, New York. Tuber dormancy is two weeks longer than ‘Atlantic’. NY162 exhibits **excellent chip color** when processed after cold storage.

Potential Applications

Potato selections suitable for chipping.

Advantages

- Very good to excellent fry color out of long term cold storage;
- Resistance to common pathogens and pests facing the potato industry (Selection dependent: common scab, golden nematode, late blight, and potato virus Y);
- A low frequency of pickouts due to knobs, misshapes and growth cracks, as well as a low levels of internal defects (hollow heart, internal necrosis, black center);
- Adaptability to many growing areas and climate conditions.

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Type:

Plant varieties

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Cornell Reference:

D-6675 (NY157)

D-7946 (NY162)

¹ Specific gravity of potato tubers as compared to the ‘Atlantic’ cultivar: difference of density (**n** less than the specific gravity of ‘Atlantic’).

² Yield compared to the marketable yield of the cultivar ‘Atlantic’ in Tompkins County, NY.