

Horticulture Report

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**UPSTATE NEW YORK
POTATO VARIETY TRIALS
AND
CULTURAL PRACTICE EXPERIMENTS**

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Summary of Potato Variety Trials in Upstate New York

Potato variety yield trials were conducted in four counties in upstate New York in 2013 in which a total of 31 named varieties and 268 numbered clones were evaluated. Ten replicated variety yield trials, two observational trials, and an early generation selection study were conducted at the Thompson Vegetable Research Farm near Freeville in Tompkins County on a Howard gravelly loam soil. Grower chip processing trials were conducted on mineral soils near Arkport (Steuben County) and Bliss (Wyoming County). Grower red and white tablestock trials were planted on muck soil near Marion (Wayne County) but was flooded out and no yield data was collected. All trials at Freeville and on grower cooperator farms were grown using standard commercial cultural practices. Freeville trials were irrigated but the grower trials were not. As evaluation of potato lines with golden nematode (GN) resistance is of high priority, 11 named and 11 numbered entries in these trials are known to have GN resistance (see Table 1 for attributes). Marketable yield, tuber quality and appearance, maturity, storage life and processing potential are among the important characteristics which are evaluated.

Freeville Trial Results:

The **early replicated yield trial** (Tables 2 and 3) had 8 entries, including the early maturity standard Superior. No entries had marketable yield above Superior, but the Cornell line NY141 had marketable yield (531 cwt/acre) at 99% that of Superior. Only Andover and NY141 had maturity as early as Superior. NY150 is unique in that it has very high tuber set, at 22.3 tubers per foot of row compared to 10.5 for Superior, thus resulting in small average tuber size. NY148 and NY150 had the best tuber appearance. There was little scab in the trial this year. Atlantic had the highest specific gravity (1.090) while AF4138-8 had the lowest (1.064).

The **medium maturity yield trial** (Tables 4 and 5) had 10 entries with an average marketable yield of 427 cwt/acre. Lehigh had the highest total yield (561 cwt/acre) and marketable yield (495 cwt/acre). AF0338-17 and Reba also had good marketable yield above Atlantic. Andover, AF4013-3 and NY141 had the most attractive tubers, while Snowden was the worst in appearance and had the most common scab. Snowden had the highest specific gravity (1.090) while A00286-3Y was the lowest (1.070). There was significant hollow heart in Atlantic, Reba and Yukon Gold.

The average marketable yield of the 8 entries in the **medium-late maturity yield trial** (Tables 6 and 7) was lower this year at 319 cwt/acre, but BNC185-2, Keuka Gold, NY143, Snowden and W5015-12 had marketable yield above the standard, Atlantic. Keuka Gold had the highest yield while Kennebec had the lowest. NY148 had the best tuber appearance while Kennebec and Snowden were very poor. NY143 had the least scab (0.0) while Snowden had the most (2.7). Snowden had the highest specific gravity (1.084), Atlantic was at 1.083, and NY143 was the lowest (1.061).

In the **late maturity trial** (Tables 8 and 9) with 14 entries there were 6 entries with marketable yield above Atlantic, with Marcy having the highest at 513 cwt/acre. Genesee had very late maturity. In general tuber appearance was only average, but Spartan Splash from Michigan State was quite attractive with a smooth white skin with purple areas “splashed” about the skin surface. There was a range of common scab ratings, with Missaukee and Snowden having significant scab (4.0). NY148 had the highest specific gravity (1.090), Atlantic was at 1.086, and Genesee was the lowest (1.061).

There are few GN resistant red- and purple-skinned clones currently available. In the **red/blue/purple-skinned replicated and observational trial** (Tables 10 and 11) with 46 entries, there were only two varieties, Red Maria and Peter Wilcox, which have been screened GN resistant in two years of tests by the USDA-ARS GN lab. The GN resistant Red Maria had the highest total yield (705 cwt/acre) and marketable yield (659 cwt/acre). There were 7 additional lines which had yield above the high yielding standard Chieftain. B2676-2 had the highest specific gravity (1.079) while K45-2 had the lowest (1.054). W8405-1R had the best red color, while RMPR#1 had the most scab and AF5131-2 had the highest percent of hollow heart.

The **russet-skinned and long tuber trial** (Tables 12 and 13) had 19 replicated and 16 observational clones. As with the case of the red-skinned lines, GN resistance is not widely available in russet-skinned lines and in 2013 we had no golden nematode resistant russet entry. Russet Burbank typically has a low percentage (50 to 60%) of marketable yield when grown under NYS conditions due to defects and undersize tubers, but in the 2013 russet trial had 73% marketable yield, representing a less stressful growing season. While 12 lines had marketable yield above Russet Burbank, AF4342-3 and AF4320-7 had marketable yield above RB by 127% and 124%, respectively. There was significant hollow heart for many entries in this trial, averaging nearly 27%. A03141-6 (1.089) had the highest specific gravity while AF5188-1(1.060) was the lowest.

The **Cornell University advanced H, J and K-clone replicated yield trial** (Tables 14 and 15) compared one “H”, two “J” and 31 “K” clones to 6 white-skinned varieties. Eleven clones had marketable yield above Atlantic which was 476 cwt/acre. K28-7 (619 cwt/acre) and Reba (611 cwt/acre) had the highest marketable yield, at 130% and 128% that of Atlantic, respectively. K28-18 had the highest (1.099) specific gravity while H122-4 the lowest (1.059). K30-9 had the best tuber appearance, K23-6 the lowest percentage of defects, K107-8 the most hollow heart (40%) and K28-21 the most scab (4.2).

Michigan State University and University of Wisconsin replicated yield trial (Tables 16 and 17) had 8 entries compared to Atlantic, Katahdin, Snowden, and Superior. MSS582-1SPL had the highest total yield (725 cwt/acre) and marketable yield (658 cwt/acre). Atlantic had the highest specific gravity (1.091) while MSL211-3 the lowest (1.066). MSS582-1SPL had the best tuber appearance, MSR061-1 the least external defects, Katahdin the most hollow heart and Superior the least scab.

University of Maine early generation trial (Tables 18 and 19) had 30 entries compared to Atlantic, Snowden and Superior. Twelve entries had marketable yield above Atlantic, with AF4914-4 having the highest total yield (580 cwt/acre) and marketable yield (511 cwt/acre). AF5281-4 had the highest specific gravity (1.099) while AF5280-5 had the lowest (1.061). AF5031-7 had the earliest maturity and also the highest percent of hollow heart. AF5292-4 had the best tuber appearance but a high level of internal brown center.

University of Maine red observational trial (Tables 20 and 21) had 38 early generation red-skinned entries compared to Chieftain and Dark Red Norland. Although the marketable yield of Chieftain was rather low for unknown reasons, only 13 entries had better yield, with NDAF102566B-6 having the highest total yield (465 cwt/acre) and marketable yield (429 cwt/acre). NDAF092241C-3 had the highest specific gravity (1.087) while AF5377-1 the lowest (1.055). NDAF092239CB-2 had the best tuber appearance, NDAF102574-3 the most hollow heart and NDAF102576B-1 the most scab (3.5).

The **USDA advanced B clone trial** (Tables 22 and 23) had 22 “B” clones compared to Atlantic, Snowden and Superior. B2948-1 had the highest total yield (578 cwt/acre) and marketable yield (492 cwt/acre). B2890-11 had the lowest specific gravity (1.067) while Snowden had the highest (1.089). B2890-11 was very early (4.5) while B2950-2 was very late (8.5). B2869-17 had the most hollow heart (33%) while B2882-4 the most common scab (3.0).

The **USDA observational B clone (one replication) trial** (Tables 24 and 25) compared 45 “B” clones to Atlantic, Katahdin, Kennebec, Snowden and Superior. While Atlantic’s yield was relatively good, only 9 entries had higher marketable yield. B2930-5 had the highest marketable yield (482 cwt/acre) which was 139 % that of Atlantic. B2827-7 had the lowest specific gravity (1.065) while B3042-2 the highest (1.097). There was significant hollow heart and scab in some clones.

County Trial Results:

Steuben (Table 26) and **Wyoming** (Table 27) **County chip processing trials** had the same entries: 4 new varieties; 9 breeding lines; and the standards Atlantic and Snowden for yield, specific gravity and chip color comparisons. NY140 had the highest total (436 cwt/acre) and marketable (382 cwt/acre) yields in the Steuben trial, representing 102% of Atlantic’s marketable yield. In the Wyoming trial Accumulator (412 cwt/acre) and NY148 (413 cwt/acre) had the highest total yields. As Accumulator had fewer under and oversize, it had the highest marketable yield (357 cwt/acre), bettering Atlantic by 108%. Accumulator, Atlantic, NY148 and Snowden had the highest specific gravity in both trials. J15-7 had good yield in both counties but had lower specific gravity. Snowden was the only entry with significant hollow heart, with 30% in the Steuben County trial. Samples were placed in grower farm storage and in Cornell facilities for chipping from long-term storage.

Agtron Chip Color Readings on 2012 Trials:

Chip data (Table 28) are presented for the 2012 season for six replicated yield trials grown at Freeville and two grower yield trials in Steuben and Wyoming Counties which have been stored at 40F and 45F. Compare the Agtron readings to Snowden, which is the long-term storage chipper – the higher the number above 60.0 the better. In general, Lamoka, Waneta, NY140 and NY148 have been as good or better (lighter chip color) than Snowden.

After-Cooking Darkening and Sloughing Ratings for 2012 Trials:

Cooking data are presented (Table 29) for eight replicated yield trials grown at Freeville and grower yield trials in Steuben, Wayne and Wyoming Counties during the 2012 season. Sixteen entries had near perfect scores for both after-cooking darkening and sloughing, while ATTX98453-3R had perfect 5.0 scores for both attributes.

MATERIALS AND METHODS – 2013 FREEVILLE TRIALS

TABLES 2-25, 28-29

Location: Homer C. Thompson Vegetable Research Farm, Freeville, New York

Trial Design: All replicated trials and experiments were in a randomized complete block design. All trials were planted according to the following number of replications.

- Early Trial (2-3) - 4 reps
- Medium Trial (4-5) – 2 and 3 reps
- Medium-Late Trial (6-7) 3 reps
- Late Trial (8-9) - 2 and 3 reps
- Red-skinned Trial (10-11) – 1 and 2 reps
- Russet Trial (12-13) – 1, 2 and 3 reps.
- Cornell Clones (14-15) - 2 and 3 reps.
- Multi-State Trial (16-17) – 2 and 3 reps
- University of Maine (18-19) – 1, 2 and 3 reps
- University of Maine Red Observational Trial (20-21) – 1 and 2 reps
- USDA White Trial (22-23) – 2 and 3 reps
- USDA White Observational Trial (24-25) – 1 and 2 reps.

Plot Size: All plots planted with 34” row width and 9” spacing between plants.

Weed Control: 2.0 LB/A Lorox 50 DF and 1.5 PT/A Dual II Magnum were applied pre-emergence to all trials.

Fertilizer: All conventional plots were banded with 1150 LB/A 13-13-13 at planting. (No fertilizer was applied pre or post-planting.)

Insect Control: All trials were sprayed with Leverage 2.7 on June 25 and Warrior on July 19 for Potato Leaf Hopper

Disease Control: Variety trials were sprayed 11 times, between June 12 and September 4. Applications were rotated among the following fungicides: Bravo Weather Stik, Ridomil Gold, Penncozeb, Quadris and Revus TOP.

Irrigation: About one inch of water was applied 4 times to all the variety trials between July 8 and August 5.

Vinekill: A single application of Reglone 1.5 pt/A + COC 1 pt/A. was used on all trials, except the Early trial which was mowed.

Weather: Comparisons between 2013 data and the 38 year average weather data for the period 1975-2012.

| | May | | June | | July | | Aug | | Sept | | Oct | |
|-------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | '13 | 38_yr | '13 | 38_yr | '13 | 38_yr | '13 | 38_yr | '13 | 38_yr | '13 | 38_yr |
| Min Temp (°F) | 24 | -- | 37 | -- | 44 | -- | 41 | -- | 30 | -- | 25 | -- |
| Max Temp (°F) | 86 | -- | 89 | -- | 91 | -- | 83 | -- | 89 | -- | 80 | -- |
| Avg Min Temp (°F) | 44 | 43 | 54 | 52 | 61 | 56 | 53 | 56 | 45 | 47 | 41 | 37 |
| Avg Max Temp (°F) | 69 | 67 | 73 | 76 | 80 | 80 | 75 | 79 | 69 | 71 | 60 | 59 |
| Mean Temp (°F) | 53 | 54 | 58 | 63 | 65 | 67 | 59 | 66 | 49 | 58 | 45 | 46 |
| Rainfall (in) | 2.94 | 3.38 | 4.07 | 4.18 | 6.53 | 3.75 | 7.98 | 3.89 | 3.13 | 4.38 | 2.83 | 3.63 |

Upstate New York Table 1. Table Index, Golden Nematode Resistance, Tuber Characteristics of Varieties and Clones in the 2013 Potato Trials Summarized in this Report.

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|---------------------|--------------------------|-----------------|-------|------|-------|---------|---------------|--------------|-----------------|-------|------|-------|---------|
| ACCUMULATOR | 26-27 | ? | 8 | 5 | 3 | 5 | A05182-7RY | 10-11 | ? | 8 | 8 | 3 | 4 |
| ADIRONDACK BLUE | 10-11 | S | 1 | 7 | 4 | 5 | A06020-8 | 12-13 | ? | 8 | 6 | 6 | 3 |
| ADIRONDACK RED | 10-11 | S | 2 | 8 | 3 | 5 | A06914-3CR | 12-13 | ? | 8 | 6 | 8 | 4 |
| ANDOVER | 2-5, 14-15, 28-29 | R | 7 | 6 | 3 | 7 | A07008-43 | 12-13 | ? | 6 | 4 | 8 | 5 |
| ATLANTIC | 2-9, 14-19, 22-29 | R | 7 | 5 | 2 | 7 | A07103-1T | 12-13 | ? | 8 | 6 | 6 | 5 |
| CHIEFTAIN | 10-11, 20-21, 29 | S | 3 | 8 | 3 | 5 | A08014-9TE | 12-13 | ? | 6 | 4 | 5 | 4 |
| DARK RED NORLAND | 10-11, 20-21, 29 | S | 3 | 8 | 2 | 6 | A08422-2VR | 12-13 | ? | 5 | 3 | 8 | 4 |
| GENESSEE | 8-9, 29 | R | 8 | 7 | 3 | 3 | A08422-5VR | 12-13 | ? | 8 | 6 | 8 | 5 |
| JACQUELINE LEE | 8-9 | ? | 9 | 8 | 6 | 5 | AAF07152-4 | 20-21 | ? | 2 | 8 | 5 | 5 |
| KATAHDIN | 8-9, 14-17, 24-25, 29 | S | 8 | 7 | 3 | 5 | AAF07254-1 | 20-21 | ? | 3 | 8 | 3 | 5 |
| KENNEBEC | 6-7, 24-25, 29 | S | 8 | 8 | 7 | 4 | AC00395-2RU | 12-13 | ? | 5 | 3 | 5 | 4 |
| KEUKA GOLD | 6-7, 29 | R | 9 | 6 | 3 | 4 | AF0338-17 | 4-5, 28-29 | R | 8 | 6 | 3 | 6 |
| LAMOKA (NY139) | 8-9, 26-29 | R | 8 | 7 | 2 | 5 | AF4013-3 | 4-5, 29 | ? | 9 | 8 | 3 | 5 |
| LEHIGH | 4-5, 29 | R | 8 | 7 | 3 | 4 | AF4113-2 | 12-13 | ? | 8 | 8 | 8 | 4 |
| MARCY | 8-9, 28-29 | R | 7 | 5 | 3 | 4 | AF4138-8 | 2-3 | ? | 8 | 7 | 2 | 5 |
| MASQUERADE | 10-11 | ? | 9 | 8 | 2 | 4 | AF4157-6 | 2-3, 28-29 | ? | 8 | 6 | 2 | 7 |
| MISSAUKEE | 8-9 | ? | 8 | 6 | 2 | 6 | AF4227-2 | 18-19 | ? | 8 | 8 | 3 | 6 |
| NICOLET | 26-27 | ? | 8 | 5 | 2 | 7 | AF4296-3 | 12-13 | ? | 6 | 6 | 8 | 4 |
| NORDONNA | 10-11 | S | 2 | 8 | 1 | 7 | AF4320-7 | 12-13 | ? | 6 | 6 | 8 | 4 |
| PETER WILCOX | 10-11 | R | 1 | 6 | 3 | 7 | AF4342-3 | 12-13 | ? | 6 | 5 | 6 | 3 |
| REBA | 4-5, 8-9, 14-15, 28-29 | R | 8 | 8 | 4 | 5 | AF4421-4 | 18-19 | ? | 8 | 6 | 2 | 7 |
| RED MARIA | 10-11, 29 | R | 2 | 5 | 1 | 7 | AF4445-3 | 12-13 | ? | 4 | 2 | 6 | 5 |
| ROCHDALE GOLD-DOREE | 2-3, 28-29 | ? | 9 | 6 | 2 | 5 | AF4453-7 | 12-13 | ? | 8 | 6 | 8 | 4 |
| RUSSET BURBANK | 12-13, 29 | S | 6 | 3 | 8 | 4 | AF4463-8 | 18-19, 28-29 | ? | 8 | 6 | 2 | 7 |
| SHEPODY | 12-13, 29 | S | 8 | 8 | 8 | 3 | AF4532-8 | 12-13 | ? | 5 | 2 | 6 | 4 |
| SNOWDEN | 4-9, 14-19, 22-25, 26-29 | S | 8 | 5 | 2 | 7 | AF4552-5 | 18-19 | ? | 8 | 6 | 1 | 6 |
| SPARTAN SPLASH | 8-9, 29 | ? | 9 | 8 | 2 | 7 | AF4565-1 | 10-11 | ? | 2 | 8 | 3 | 7 |
| SUPERIOR | 2-3, 14-19, 22-25, 28-29 | S | 8 | 6 | 5 | 5 | AF4573-2 | 18-19 | ? | 8 | 7 | 2 | 7 |
| TETON RUSSET | 12-13 | ? | 6 | 4 | 6 | 5 | AF4614-2 | 18-19 | ? | 8 | 8 | 2 | 7 |
| WANETA (NY138) | 8-9, 26-29 | R | 8 | 8 | 1 | 7 | AF4615-5 | 12-13 | ? | 8 | 6 | 6 | 4 |
| YUKON GOLD | 4-5, 29 | S | 9 | 8 | 2 | 7 | AF4640-1 | 18-19 | ? | 8 | 8 | 1 | 7 |
| A00286-3Y | 4-5, 29 | S | 9 | 8 | 4 | 5 | AF4692-1 | 12-13 | ? | 8 | 8 | 6 | 3 |
| A01010-1 | 12-13, 29 | S | 4 | 2 | 6 | 4 | AF4730-2 | 18-19 | ? | 9 | 8 | 3 | 5 |
| A01025-4 | 12-13 | ? | 8 | 6 | 8 | 4 | AF4736-10 | 18-19 | ? | 8 | 7 | 1 | 7 |
| A03141-6 | 12-13 | ? | 5 | 4 | 8 | 5 | AF4838-1 | 18-19 | ? | 8 | 8 | 2 | 4 |
| A03158-2TE | 12-13 | ? | 5 | 3 | 8 | 4 | AF4852-4 | 18-19 | ? | 8 | 7 | 2 | 7 |
| A03873-3NV | 12-13 | ? | 9 | 6 | 6 | 5 | AF4914-4 | 18-19 | ? | 8 | 8 | 1 | 7 |
| A05180-3PY | 10-11 | ? | 1 | 9 | 1 | 9 | AF4950-1 | 12-13 | ? | 7 | 6 | 5 | 3 |

(continued)

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|---------------|-----------|-----------------|-------|------|-------|---------|---------------|--------------|-----------------|-------|------|-------|---------|
| AF4950-2 | 12-13 | ? | 8 | 6 | 6 | 4 | AF5414-1 | 20-21 | ? | 1 | 8 | 5 | 4 |
| AF4953-2 | 12-13 | ? | 8 | 6 | 6 | 4 | AF5441-2 | 20-21 | ? | 3 | 8 | 2 | 4 |
| AF4953-6 | 12-13 | ? | 6 | 4 | 6 | 5 | AF5441-3 | 20-21 | ? | 2 | 8 | 1 | 7 |
| AF4957-5 | 12-13 | ? | 8 | 5 | 8 | 4 | AOTX91861-41 | 10-11 | ? | 2 | 9 | 3 | 5 |
| AF4989-1 | 12-13 | ? | 6 | 5 | 4 | 3 | ATTX01178-1R | 10-11, 29 | ? | 2 | 8 | 2 | 7 |
| AF5031-7 | 18-19 | ? | 9 | 8 | 3 | 7 | B2676-2 | 10-11 | ? | 3 | 7 | 3 | 5 |
| AF5033-11 | 18-19 | ? | 8 | 7 | 1 | 6 | B2728-2 | 24-25, 28-29 | R | 8 | 8 | 3 | 4 |
| AF5040-4 | 18-19 | ? | 9 | 8 | 3 | 4 | B2738-3 | 22-23 | ? | 8 | 6 | 2 | 5 |
| AF5041-1 | 10-11 | ? | 2 | 8 | 1 | 7 | B2817-16 | 24-25 | ? | 8 | 8 | 2 | 3 |
| AF5042-8 | 18-19 | ? | 8 | 8 | 3 | 5 | B2827-7 | 24-25 | ? | 8 | 8 | 3 | 7 |
| AF5044-19 | 18-19 | ? | 8 | 6 | 3 | 5 | B2827-12 | 22-23 | ? | 8 | 8 | 3 | 4 |
| AF5068-3 | 18-19 | ? | 9 | 8 | 3 | 7 | B2827-13 | 22-23 | ? | 8 | 8 | 3 | 4 |
| AF5131-2 | 10-11 | ? | 2 | 8 | 2 | 5 | B2832-12 | 22-23 | ? | 7 | 6 | 1 | 7 |
| AF5138-2 | 18-19 | ? | 7 | 6 | 2 | 7 | B2834-8 | 22-23 | ? | 8 | 6 | 2 | 7 |
| AF5140-1 | 18-19 | ? | 8 | 7 | 2 | 7 | B2869-17 | 22-23 | ? | 8 | 8 | 2 | 4 |
| AF5142-3 | 18-19 | ? | 7 | 6 | 2 | 7 | B2869-28 | 22-23, 28-29 | ? | 8 | 8 | 1 | 7 |
| AF5152-3 | 18-19 | ? | 8 | 6 | 2 | 7 | B2876-7 | 22-23 | ? | 8 | 8 | 3 | 5 |
| AF5153-11 | 18-19 | ? | 9 | 8 | 3 | 7 | B2882-4 | 22-23 | ? | 8 | 8 | 2 | 7 |
| AF5154-2 | 10-11 | ? | 2 | 8 | 3 | 5 | B2883-11 | 22-23 | ? | 8 | 7 | 1 | 7 |
| AF5160-7 | 10-11 | ? | 2 | 8 | 3 | 4 | B2883-12 | 22-23, 28-29 | ? | 8 | 7 | 3 | 5 |
| AF5188-1 | 12-13 | ? | 7 | 6 | 6 | 4 | B2890-11 | 22-23 | ? | 9 | 8 | 3 | 5 |
| AF5215-2 | 18-19 | ? | 9 | 8 | 4 | 3 | B2893-2 | 22-23 | ? | 8 | 8 | 2 | 7 |
| AF5235-2 | 12-13 | ? | 8 | 6 | 5 | 3 | B2908-3 | 22-23 | ? | 8 | 7 | 4 | 7 |
| AF5243-2 | 18-19 | ? | 9 | 6 | 3 | 4 | B2930-5 | 24-25 | ? | 9 | 8 | 3 | 7 |
| AF5245-1 | 10-11 | ? | 1 | 8 | 3 | 7 | B2942-6 | 10-11 | ? | 2 | 8 | 1 | 7 |
| AF5274-6 | 10-11 | ? | 2 | 8 | 3 | 5 | B2947-5 | 22-23 | ? | 7 | 5 | 1 | 6 |
| AF5280-5 | 18-19 | ? | 8 | 8 | 3 | 5 | B2947-7 | 22-23 | ? | 8 | 6 | 4 | 6 |
| AF5281-4 | 18-19 | ? | 8 | 8 | 2 | 7 | B2947-8 | 22-23 | ? | 8 | 7 | 1 | 7 |
| AF5286-2 | 18-19 | ? | 8 | 8 | 3 | 5 | B2948-1 | 22-23 | ? | 8 | 6 | 3 | 4 |
| AF5289-1 | 18-19 | ? | 8 | 8 | 3 | 4 | B2950-2 | 22-23 | ? | 8 | 7 | 3 | 7 |
| AF5292-4 | 18-19 | ? | 8 | 8 | 3 | 7 | B2950-3 | 22-23 | ? | 8 | 6 | 2 | 4 |
| AF5305-3 | 12-13 | ? | 6 | 6 | 6 | 4 | B2951-7 | 24-25 | ? | 8 | 6 | 1 | 7 |
| AF5356-3 | 10-11 | ? | 9 | 8 | 3 | 5 | B2951-8 | 24-25 | ? | 8 | 8 | 3 | 4 |
| AF5375-3 | 20-21 | ? | 1 | 8 | 5 | 5 | B2952-6 | 24-25 | ? | 9 | 8 | 3 | 5 |
| AF5377-1 | 20-21 | ? | 1 | 8 | 3 | 7 | B2952-7 | 24-25 | ? | 9 | 8 | 1 | 8 |
| AF5378-1 | 20-21 | ? | 2 | 8 | 2 | 4 | B2954-11 | 24-25 | ? | 8 | 7 | 1 | 7 |
| AF5380-2 | 20-21 | ? | 1 | 8 | 5 | 4 | B2954-20 | 24-25 | ? | 8 | 8 | 2 | 7 |
| AF5412-1 | 20-21 | ? | 1 | 8 | 6 | 3 | B2981-2 | 24-25 | ? | 8 | 6 | 1 | 7 |

(continued)

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|---------------|------------|-----------------|-------|------|-------|---------|---------------|--------------|-----------------|-------|------|-------|---------|
| B2981-5 | 24-25 | ? | 8 | 7 | 2 | 7 | BNC316-1 | 10-11 | ? | 1 | 7 | 2 | 5 |
| B2981-7 | 24-25 | ? | 8 | 6 | 1 | 7 | BNC318-6 | 24-25 | ? | 8 | 6 | 3 | 5 |
| B2982-5 | 24-25 | ? | 8 | 8 | 2 | 6 | BNC318-7 | 24-25 | ? | 7 | 6 | 1 | 5 |
| B2993-1 | 24-25 | ? | 8 | 6 | 3 | 5 | BNC320-2 | 10-11 | ? | 1 | 8 | 1 | 7 |
| B2993-2 | 24-25 | ? | 8 | 7 | 3 | 4 | BNC322-2 | 10-11 | ? | 2 | 8 | 1 | 4 |
| B2993-6 | 24-25 | ? | 8 | 5 | 3 | 5 | BNC362-2 | 24-25 | ? | 8 | 6 | 4 | 3 |
| B2994-1 | 24-25 | ? | 8 | 8 | 2 | 7 | BNC363-11 | 24-25 | ? | 7 | 5 | 1 | 6 |
| B2996-1 | 24-25 | ? | 8 | 6 | 2 | 7 | BNC364-1 | 24-25 | ? | 8 | 8 | 3 | 4 |
| B2996-2 | 24-25 | ? | 8 | 8 | 2 | 7 | BNC365-4 | 24-25 | ? | 8 | 6 | 1 | 7 |
| B2999-1 | 24-25 | ? | 8 | 8 | 3 | 5 | BNC366-1 | 24-25 | ? | 8 | 8 | 3 | 4 |
| B2999-3 | 24-25 | ? | 9 | 5 | 6 | 5 | BNC369-1 | 24-25 | ? | 8 | 8 | 1 | 7 |
| B2999-6 | 24-25 | ? | 8 | 6 | 2 | 7 | CO03276-5RU | 12-13 | ? | 5 | 3 | 8 | 4 |
| B3000-1 | 24-25 | ? | 8 | 7 | 2 | 7 | CO04159-1R | 10-11 | ? | 2 | 8 | 1 | 7 |
| B3000-2 | 24-25 | ? | 8 | 8 | 2 | 3 | HI22-4 | 14-15, 28-29 | ? | 3 | 8 | 5 | 5 |
| B3002-1 | 24-25 | ? | 8 | 6 | 2 | 4 | J2-21 | 26-27 | ? | 8 | 6 | 3 | 5 |
| B3003-2 | 24-25 | ? | 8 | 8 | 3 | 7 | J3-14 | 26-29 | ? | 8 | 6 | 2 | 7 |
| B3005-6 | 24-25 | ? | 7 | 5 | 6 | 4 | J5-2 | 26-27 | ? | 8 | 6 | 2 | 7 |
| B3005-7 | 24-25 | ? | 7 | 6 | 3 | 4 | J13-2 | 26-29 | ? | 8 | 5 | 2 | 5 |
| B3005-9 | 24-25 | ? | 8 | 8 | 3 | 7 | J15-7 | 26-29 | ? | 8 | 6 | 2 | 6 |
| B3010-2 | 24-25 | ? | 8 | 6 | 8 | 4 | J17-1 | 26-29 | R | 8 | 6 | 4 | 6 |
| B3012-3 | 24-25 | ? | 8 | 7 | 1 | 7 | J18-2 | 14-15, 28-29 | ? | 8 | 8 | 1 | 4 |
| B3013-1 | 24-25 | ? | 8 | 6 | 1 | 7 | J21-5 | 14-15, 28-29 | R | 8 | 8 | 5 | 7 |
| B3019-2 | 24-25 | ? | 8 | 8 | 1 | 7 | K6-1 | 14-15 | ? | 8 | 8 | 1 | 7 |
| B3021-1 | 24-25 | ? | 8 | 6 | 2 | 4 | K11-2 | 14-15 | ? | 8 | 8 | 2 | 5 |
| B3034-7 | 10-11 | ? | 2 | 6 | 1 | 7 | K13-2 | 14-15 | ? | 8 | 6 | 1 | 5 |
| B3034-9 | 10-11 | ? | 2 | 7 | 1 | 3 | K13-3 | 14-15 | ? | 8 | 6 | 1 | 3 |
| B3042-2 | 24-25 | ? | 8 | 8 | 2 | 3 | K18-3 | 14-15 | ? | 8 | 8 | 2 | 7 |
| BNC182-5 | 6-7, 28-29 | R | 8 | 6 | 1 | 7 | K18-8 | 14-15 | ? | 8 | 8 | 3 | 5 |
| BNC201-1 | 10-11 | ? | 2 | 8 | 3 | 6 | K19-9 | 14-15 | ? | 8 | 6 | 3 | 3 |
| BNC233-3 | 22-23 | ? | 8 | 8 | 2 | 6 | K19-28 | 14-15 | ? | 8 | 6 | 1 | 5 |
| BNC266-6 | 22-23 | ? | 8 | 8 | 3 | 3 | K19-31 | 14-15 | ? | 8 | 6 | 2 | 5 |
| BNC304-1 | 10-11 | ? | 2 | 8 | 2 | 4 | K21-2 | 14-15 | ? | 8 | 6 | 3 | 4 |
| BNC306-2 | 10-11 | ? | 1 | 8 | 2 | 5 | K21-6 | 14-15 | ? | 8 | 6 | 1 | 7 |
| BNC306-3 | 10-11 | ? | 1 | 8 | 1 | 7 | K21-8 | 14-15 | ? | 8 | 6 | 4 | 5 |
| BNC312-1 | 24-25 | ? | 8 | 7 | 3 | 5 | K22-3 | 14-15 | ? | 8 | 8 | 1 | 7 |
| BNC314-5 | 10-11 | ? | 3 | 8 | 2 | 5 | K22-7 | 14-15 | ? | 8 | 8 | 3 | 4 |
| BNC314-8 | 10-11 | ? | 1 | 7 | 3 | 5 | K22-10 | 14-15 | ? | 8 | 8 | 1 | 5 |
| BNC315-5 | 10-11 | ? | 2 | 6 | 3 | 4 | K23-6 | 14-15 | ? | 8 | 7 | 1 | 7 |

(continued)

Upstate New York Table 1. -(cont'd)- Table Index, Golden Nematode Resistance, Tuber Characteristics of Varieties and Clones in the 2013 Potato Trials Summarized in this Report.

| Variety/Clone | Table No. | GN ² | COLOR | TEX. | SHAPE | X-SECT. | Variety/Clone | Table No. | GN ² | COLOR | TEX. | SHAPE | X-SECT. |
|----------------|--------------|-----------------|-------|------|-------|---------|---------------|------------|-----------------|-------|------|-------|---------|
| K23-13 | 14-15 | ? | 8 | 6 | 2 | 5 | NDAF102569C-2 | 20-21 | ? | 2 | 8 | 3 | 5 |
| K27-1 | 14-15 | ? | 8 | 6 | 2 | 4 | NDAF102573-1 | 20-21 | ? | 2 | 8 | 1 | 7 |
| K27-3 | 14-15 | ? | 8 | 8 | 3 | 3 | NDAF102573-2 | 20-21 | ? | 2 | 6 | 1 | 7 |
| K27-4 | 14-15 | ? | 8 | 8 | 5 | 3 | NDAF102573-3 | 20-21 | ? | 2 | 8 | 1 | 7 |
| K28-6 | 14-15 | ? | 8 | 6 | 3 | 3 | NDAF102574-1 | 20-21 | ? | 2 | 8 | 1 | 7 |
| K28-7 | 14-15 | ? | 8 | 7 | 5 | 3 | NDAF102574-3 | 20-21 | ? | 2 | 8 | 2 | 7 |
| K28-14 | 14-15 | ? | 8 | 6 | 3 | 4 | NDAF102575B-1 | 20-21 | ? | 2 | 8 | 1 | 7 |
| K28-18 | 14-15 | ? | 8 | 6 | 3 | 3 | NDAF102575B-3 | 20-21 | ? | 2 | 8 | 5 | 5 |
| K28-21 | 14-15 | ? | 8 | 6 | 5 | 5 | NDAF102575B-5 | 20-21 | ? | 3 | 6 | 1 | 5 |
| K28-26 | 14-15 | ? | 8 | 7 | 3 | 4 | NDAF102575B-6 | 20-21 | ? | 2 | 8 | 2 | 7 |
| K30-9 | 14-15 | ? | 8 | 6 | 1 | 7 | NDAF102575B-6 | 20-21 | ? | 2 | 8 | 1 | 7 |
| K31-4 | 14-15 | ? | 8 | 7 | 2 | 6 | NDAF102576B-1 | 20-21 | ? | 2 | 8 | 1 | 7 |
| K34-1 | 14-15 | ? | 8 | 6 | 2 | 5 | NDAF102576B-4 | 20-21 | ? | 2 | 8 | 2 | 3 |
| K45-2 | 10-11 | ? | 2 | 8 | 3 | 7 | NDAF102579C-2 | 20-21 | ? | 2 | 8 | 1 | 7 |
| K100-3 | 10-11 | ? | 2 | 8 | 4 | 4 | NDTX5438-11R | 10-11 | ? | 2 | 8 | 3 | 4 |
| K107-4 | 14-15 | ? | 8 | 8 | 1 | 6 | NY115 | 14-15 | R | 8 | 8 | 2 | 5 |
| K107-8 | 14-15 | ? | 8 | 7 | 1 | 5 | NY140 | 8-9, 26-29 | R ² | 8 | 8 | 3 | 5 |
| (MSU) RMPR#1 | 10-11 | ? | 3 | 6 | 1 | 7 | NY141 | 2-5, 28-29 | R | 8 | 7 | 4 | 5 |
| MSL211-3 | 16-17 | ? | 8 | 8 | 5 | 3 | NY143 | 6-7 | R | 8 | 9 | 4 | 7 |
| MSM182-1 | 16-17 | ? | 8 | 8 | 2 | 7 | NY148 | 8-9, 26-29 | R | 7 | 6 | 1 | 4 |
| MSR061-1 | 16-17, 26-27 | ? | 7 | 6 | 1 | 7 | NY150 | 2-3, 29 | R | 8 | 9 | 1 | 8 |
| MSS176-1 | 16-17 | ? | 8 | 8 | 5 | 4 | NY152 | 8-9 | S | 7 | 6 | 2 | 4 |
| MSS206-2 | 16-17 | ? | 8 | 7 | 1 | 5 | W5015-12 | 6-7, 28-29 | ? | 7 | 5 | 2 | 3 |
| MSS576-5S PL | 16-17, 28-29 | ? | 9 | 8 | 1 | 7 | W5955-1 | 6-7 | ? | 8 | 6 | 2 | 6 |
| MSS582-1S PL | 16-17 | ? | 8 | 8 | 3 | 4 | W6002-1R | 10-11 | ? | 3 | 7 | 3 | 5 |
| NDAF092239CB-2 | 20-21 | ? | 8 | 8 | 3 | 4 | W6483-5 | 16-17 | ? | 8 | 8 | 3 | 4 |
| NDAF092241C-3 | 20-21 | ? | 1 | 8 | 1 | 8 | W8370-2R | 10-11 | ? | 3 | 6 | 1 | 7 |
| NDAF092274b-2 | 20-21 | ? | 2 | 8 | 1 | 7 | W8405-1R | 10-11 | ? | 2 | 8 | 2 | 7 |
| NDAF092283B-2 | 20-21 | ? | 3 | 8 | 3 | 4 | W8893-1R | 10-11 | ? | 2 | 9 | 5 | 5 |
| NDAF092309C-1 | 20-21 | ? | 2 | 8 | 2 | 4 | W9426-3R/Y | 10-11 | ? | 2 | 6 | 2 | 3 |
| NDAF102545B-2 | 20-21 | ? | 2 | 7 | 5 | 4 | W9746-4R | 10-11 | ? | 2 | 8 | 2 | 7 |
| NDAF102546B-2 | 20-21 | ? | 2 | 8 | 2 | 7 | W9765-3R | 10-11 | ? | 2 | 8 | 1 | 7 |
| NDAF102566B-6 | 20-21 | ? | 2 | 8 | 2 | 7 | WAF10104R-4 | 20-21 | ? | 2 | 8 | 2 | 7 |
| NDAF102567B-2 | 20-21 | ? | 2 | 8 | 1 | 7 | WAF10114R-3 | 20-21 | ? | 2 | 8 | 3 | 5 |
| NDAF102569C-1 | 20-21 | ? | 2 | 8 | 3 | 4 | WAF10209R-6 | 20-21 | ? | 2 | 8 | 1 | 7 |
| | | | | | | | WAF10209R-8 | 20-21 | ? | 2 | 8 | 2 | 7 |

Upstate New York Table 2. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the early maturity trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--|----|----|---|---|-------------------|-----------------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" to 4" | 2-1/2" to 4" | #/ft. | wt.(oz.) | |
| ANDOVER | 474 | 437 | 82 | 4 | 46 | 44 | 5 | 1 | 95 | 49 | 10.1 | 5.0 | 78 |
| ATLANTIC | 522 | 479 | 90 | 6 | 46 | 45 | 2 | 0 | 93 | 47 | 11.6 | 4.7 | 90 |
| AF4138-8 | 506 | 431 | 80 | 14 | 57 | 29 | 0 | 0 | 86 | 29 | 14.2 | 3.7 | 64 |
| AF4157-6 | 461 | 412 | 77 | 9 | 58 | 32 | 1 | 0 | 91 | 33 | 12.4 | 3.9 | 84 |
| NY141 | 578 | 531 | 99 | 3 | 42 | 48 | 6 | 0 | 97 | 55 | 11.3 | 5.3 | 77 |
| NY150 | 420 | 151 | 28 | 62 | 37 | 0 | 0 | 0 | 38 | 0 | 22.3 | 2.0 | 79 |
| ROCHDALE GOLD-DOREE | 391 | 332 | 62 | 10 | 50 | 38 | 3 | 0 | 90 | 40 | 9.9 | 4.1 | 74 |
| SUPERIOR | 580 | 535 | 100 | 3 | 34 | 52 | 9 | 2 | 96 | 62 | 10.5 | 5.7 | 74 |
| Average: | 492 | 414 | 77 | 14 | 46 | 36 | 3 | 0 | 86 | 39 | 12.8 | 4.3 | 77 |
| Maximum: | 580 | 535 | 100 | 62 | 58 | 52 | 9 | 2 | 97 | 62 | 22.3 | 5.7 | 90 |
| Minimum: | 391 | 151 | 28 | 3 | 34 | 0 | 0 | 0 | 38 | 0 | 9.9 | 2.0 | 64 |
| Waller-Duncan | | | | | | | | | | | | | |
| LSD (k=100) | 68 | 54 | | | | | | | | | 2 | 1 | 3 |
| C.V. (%) | (10) | (10) | | | | | | | | | (10) | (8) | (3) |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 6

Maturity Ratings: Aug 19

Vinekill (mow) Date: Aug 19

Harvest Date: Aug 20

Note: all entries are in 4 replications.

Upstate New York Table 3. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the early maturity trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| ANDOVER | 6.3 | 4 | 6 | 6.5 | 2.9 | 1.2 | 0.4 | 0.3 | 0.9 | 10.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| ATLANTIC | 6.5 | 2 | 5 | 5.5 | 1.5 | 0.6 | 0.1 | 0.3 | 0.5 | 22.5 | 0.0 | 0.0 | 0.0 | 0.3 |
| AF4138-8 | 7.8 | 2 | 7 | 6.3 | 1.1 | 0.5 | 0.1 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| AF4157-6 | 6.8 | 2 | 6 | 5.8 | 1.8 | 0.6 | 0.2 | 0.9 | 0.1 | 10.0 | 2.5 | 0.0 | 0.0 | 1.3 |
| NY141 | 6.3 | 5 | 7 | 7.3 | 5.1 | 1.2 | 3.4 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| NY150 | 7.0 | 1 | 9 | 8.0 | 2.1 | 0.9 | 0.8 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| ROCHDALE GOLD-DOREE | 7.5 | 2 | 6 | 6.6 | 5.2 | 1.3 | 0.0 | 1.4 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| SUPERIOR | 6.5 | 5 | 6 | 4.0 | 3.5 | 1.4 | 1.3 | 0.3 | 0.5 | 2.5 | 2.5 | 0.0 | 0.0 | 0.8 |
| Average: | 6.8 | 3 | 6 | 6.2 | 2.9 | 1.0 | 0.8 | 0.5 | 0.7 | 5.6 | 0.6 | 0.0 | 0.0 | 0.7 |
| Maximum: | 7.8 | 5 | 9 | 8.0 | 5.2 | 1.4 | 3.4 | 1.4 | 2.5 | 22.5 | 2.5 | 0.0 | 0.0 | 1.5 |
| Minimum: | 6.3 | 1 | 5 | 4.0 | 1.1 | 0.5 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 4. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the medium maturity trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--------------------------------|----|----|----|---|-------------------|--------|------------|----------|----------------|
| | | Cwt/A | % of Std. | (% of total yield) | | | | | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | |
| | | | | 1 | 2 | 3 | 4 | 5 | to 4" | to 4 " | | | |
| ANDOVER | 440 | 411 | 100 | 5 | 49 | 44 | 2 | 0 | 95 | 46 | 9.7 | 4.7 | 77 |
| ATLANTIC | 447 | 412 | 100 | 5 | 49 | 42 | 3 | 0 | 95 | 45 | 10.3 | 4.5 | 85 |
| A00286-3Y | 442 | 318 | 77 | 19 | 63 | 17 | 0 | 0 | 81 | 18 | 14.8 | 3.1 | 70 |
| AF0338-17 | 491 | 450 | 109 | 2 | 36 | 53 | 7 | 2 | 96 | 60 | 9.3 | 5.5 | 76 |
| AF4013-3 ** | 453 | 396 | 96 | 11 | 57 | 32 | 0 | 0 | 89 | 32 | 12.7 | 3.7 | 77 |
| LEHIGH | 561 | 495 | 120 | 4 | 28 | 55 | 11 | 1 | 94 | 66 | 9.4 | 6.2 | 79 |
| NY141 | 470 | 422 | 102 | 3 | 46 | 48 | 2 | 1 | 97 | 50 | 9.6 | 5.1 | 76 |
| REBA-CU | 474 | 410 | 100 | 6 | 53 | 40 | 1 | 1 | 94 | 41 | 11.0 | 4.4 | 71 |
| REBA-GR ** | 487 | 458 | 111 | 2 | 51 | 45 | 2 | 0 | 98 | 46 | 10.1 | 5.0 | 72 |
| SNOWDEN | 536 | 487 | 118 | 7 | 63 | 30 | 0 | 0 | 93 | 30 | 14.4 | 3.9 | 90 |
| YUKON GOLD | 483 | 436 | 106 | 3 | 24 | 54 | 16 | 3 | 94 | 70 | 8.3 | 6.0 | 77 |
| Average: | 480 | 427 | 104 | 6 | 47 | 42 | 4 | 1 | 93 | 46 | 10.9 | 4.8 | 77 |
| Maximum: | 561 | 495 | 120 | 19 | 63 | 55 | 16 | 3 | 98 | 70 | 14.8 | 6.2 | 90 |
| Minimum: | 440 | 318 | 77 | 2 | 24 | 17 | 0 | 0 | 81 | 18 | 8.3 | 3.1 | 70 |
| Waller-Duncan | | | | | | | | | | | | | |
| LSD (k=100) | 74 | 69 | | | | | | | | | 1.2 | 0.6 | 4 |
| C.V. (%) | (8) | (9) | | | | | | | | | (7) | (8) | (3) |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 6

Maturity Ratings: Aug 12

Vinekill Date: Aug 15

Harvest Date: Aug 26

Notr: all entries are in 3 replications except for those denoted by ** which are in 2 replications.

Upstate New York Table 5. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the medium maturity trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bm. Center | Vasc. Disc. | Int. Nec. | |
| ANDOVER | 7.0 | 2 | 6 | 7.0 | 1.8 | 0.8 | 0.0 | 0.0 | 1.0 | 16.7 | 0.0 | 0.0 | 0.0 | 0.7 |
| ATLANTIC | 7.3 | 2 | 5 | 5.0 | 2.3 | 1.2 | 0.0 | 0.4 | 0.8 | 30.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| A00286-3Y | 9.0 | 4 | 8 | 4.3 | 8.7 | 1.2 | 3.2 | 3.7 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| AF0338-17 | 7.0 | 3 | 6 | 6.2 | 4.3 | 2.1 | 0.0 | 1.1 | 1.1 | 13.3 | 0.0 | 0.0 | 0.0 | 0.7 |
| AF4013-3 ** | 7.5 | 3 | 8 | 7.0 | 2.1 | 1.3 | 0.1 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| LEHIGH | 7.0 | 3 | 7 | 5.0 | 5.8 | 1.8 | 1.6 | 0.2 | 2.3 | 13.3 | 0.0 | 0.0 | 0.0 | 1.8 |
| NY141 | 6.0 | 3 | 8 | 7.0 | 7.0 | 0.7 | 3.0 | 0.3 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 |
| REBA-CU | 7.7 | 2 | 8 | 5.7 | 7.2 | 3.5 | 0.6 | 0.4 | 2.7 | 56.7 | 0.0 | 0.0 | 0.0 | 1.0 |
| REBA-GR ** | 7.5 | 2 | 8 | 6.5 | 3.9 | 3.4 | 0.0 | 0.0 | 0.5 | 60.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| SNOWDEN | 7.7 | 2 | 5 | 3.3 | 2.1 | 1.9 | 0.0 | 0.0 | 0.2 | 6.7 | 0.0 | 0.0 | 0.0 | 3.2 |
| YUKON GOLD | 7.7 | 2 | 8 | 6.3 | 4.1 | 0.8 | 0.8 | 0.6 | 1.9 | 40.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Average: | 7.4 | 3 | 7 | 5.8 | 4.5 | 1.7 | 0.9 | 0.7 | 1.3 | 21.5 | 0.0 | 0.0 | 0.0 | 0.9 |
| Maximum: | 9.0 | 4 | 8 | 7.0 | 8.7 | 3.5 | 3.2 | 3.7 | 2.9 | 60.0 | 0.0 | 0.0 | 0.0 | 3.2 |
| Minimum: | 6.0 | 2 | 5 | 3.3 | 1.8 | 0.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 6. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the medium-late maturity trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|--|-------------------------|--------------|--------------|--|----|----|---|---|-------------------|-----------------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" to 4" | 2-1/2" to 4" | #/ft. | wt.(oz.) | |
| ATLANTIC | 373 | 328 | 100 | 9 | 51 | 37 | 4 | 0 | 91 | 41 | 9.4 | 4.1 | 83 |
| BNC182-5 | 408 | 332 | 101 | 16 | 46 | 37 | 1 | 0 | 84 | 38 | 11.7 | 3.6 | 77 |
| KENNEBEC | 266 | 164 | 50 | 6 | 52 | 32 | 7 | 2 | 92 | 39 | 6.2 | 4.5 | 66 |
| KEUKA GOLD | 491 | 441 | 134 | 8 | 41 | 50 | 2 | 0 | 92 | 51 | 11.3 | 4.5 | 68 |
| NY143 | 400 | 337 | 103 | 10 | 48 | 41 | 1 | 0 | 90 | 42 | 9.4 | 4.4 | 61 |
| SNOWDEN | 395 | 352 | 107 | 9 | 56 | 35 | 0 | 0 | 91 | 35 | 10.8 | 3.8 | 84 |
| W5015-12 | 462 | 371 | 113 | 18 | 58 | 23 | 0 | 0 | 82 | 24 | 15.0 | 3.2 | 80 |
| W5955-1 | 276 | 225 | 69 | 8 | 33 | 55 | 4 | 0 | 92 | 59 | 6.3 | 4.6 | 78 |
| Average: | 384 | 319 | 97 | 10 | 48 | 39 | 2 | 0 | 89 | 41 | 10.0 | 4.1 | 75 |
| Maximum: | 491 | 441 | 134 | 18 | 58 | 55 | 7 | 2 | 92 | 59 | 15.0 | 4.6 | 84 |
| Minimum: | 266 | 164 | 50 | 6 | 33 | 23 | 0 | 0 | 82 | 24 | 6.2 | 3.2 | 61 |
| Waller-Duncan LSD (k=100) C.V. (%) | N.S. (23) | N.S. (27) | | | | | | | | | 3 (19) | 1 (6) | 5 (4) |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 7

Maturity Ratings: Aug 12

Vinekill Date: Aug 15

Harvest Date: Aug 29

Note: all entries are in 3 replications.

Upstate New York Table 7. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the medium-late maturity trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bn. Center | Vasc. Disc. | Int. Nec. | |
| ATLANTIC | 7.3 | 1 | 6 | 7.0 | 3.5 | 2.2 | 0.1 | 0.4 | 0.8 | 23.3 | 0.0 | 0.0 | 0.0 | 1.3 |
| BNC182-5 | 8.3 | 1 | 6 | 6.7 | 2.7 | 1.4 | 0.3 | 0.0 | 1.0 | 16.7 | 0.0 | 0.0 | 0.0 | 0.2 |
| KENNEBEC | 7.7 | 7 | 8 | 4.0 | 30.4 | 5.5 | 4.9 | 15.0 | 4.9 | 10.0 | 3.3 | 3.3 | 0.0 | 1.2 |
| KEUKA GOLD | 7.7 | 3 | 6 | 7.2 | 2.8 | 1.6 | 0.1 | 0.0 | 1.1 | 16.7 | 0.0 | 0.0 | 0.0 | 2.0 |
| NY143 | 7.0 | 4 | 9 | 8.0 | 6.0 | 2.8 | 0.9 | 1.0 | 1.3 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| SNOWDEN | 7.0 | 2 | 5 | 4.0 | 2.8 | 2.4 | 0.0 | 0.2 | 0.2 | 16.7 | 0.0 | 0.0 | 0.0 | 2.7 |
| W5015-12 | 8.3 | 2 | 5 | 4.0 | 2.2 | 1.6 | 0.0 | 0.2 | 0.4 | 16.7 | 0.0 | 0.0 | 0.0 | 2.0 |
| W5955-1 | 9.0 | 2 | 6 | 6.0 | 9.8 | 6.4 | 3.3 | 0.2 | 0.0 | 56.7 | 0.0 | 0.0 | 0.0 | 1.0 |
| Average: | 7.8 | 3 | 6 | 5.9 | 7.5 | 3.0 | 1.2 | 2.1 | 1.2 | 20.0 | 0.4 | 0.4 | 0.0 | 1.3 |
| Maximum: | 9.0 | 7 | 9 | 8.0 | 30.4 | 6.4 | 4.9 | 15.0 | 4.9 | 56.7 | 3.3 | 3.3 | 0.0 | 2.7 |
| Minimum: | 7.0 | 1 | 5 | 4.0 | 2.2 | 1.4 | 0.0 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 8. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the late maturity trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--------------------------------|----|----|---|---|-------------------|--------|------------|----------|----------------|
| | | Cwt/A | % of Std. | (% of total yield) | | | | | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | |
| | | | | 1 | 2 | 3 | 4 | 5 | to 4" | to 4" | | | |
| ATLANTIC | 489 | 430 | 100 | 7 | 50 | 41 | 2 | 0 | 93 | 43 | 12.2 | 4.2 | 86 |
| GENESEE | 382 | 335 | 78 | 5 | 45 | 43 | 7 | 0 | 95 | 50 | 8.6 | 4.7 | 61 |
| JACQUELINE LEE | 524 | 312 | 73 | 27 | 67 | 6 | 0 | 0 | 73 | 6 | 19.6 | 2.8 | 74 |
| KATAHDIN | 376 | 319 | 74 | 11 | 60 | 30 | 0 | 0 | 89 | 30 | 10.4 | 3.8 | 67 |
| LAMOKA | 465 | 422 | 98 | 8 | 57 | 34 | 1 | 0 | 92 | 35 | 12.1 | 4.0 | 87 |
| MARCY | 577 | 513 | 119 | 5 | 44 | 47 | 3 | 0 | 95 | 50 | 12.6 | 4.8 | 78 |
| MISSAUKEE | 528 | 422 | 98 | 17 | 54 | 28 | 0 | 0 | 83 | 29 | 16.7 | 3.3 | 72 |
| NY140 | 543 | 480 | 112 | 5 | 43 | 50 | 3 | 0 | 95 | 53 | 11.6 | 4.9 | 76 |
| NY148 ** | 559 | 490 | 114 | 10 | 57 | 34 | 0 | 0 | 90 | 34 | 14.9 | 3.9 | 90 |
| NY152 ** | 545 | 457 | 106 | 13 | 52 | 34 | 1 | 0 | 87 | 35 | 15.2 | 3.8 | 78 |
| REBA ** | 503 | 462 | 107 | 3 | 37 | 51 | 9 | 1 | 96 | 60 | 9.7 | 5.4 | 76 |
| SNOWDEN | 505 | 447 | 104 | 8 | 52 | 37 | 3 | 0 | 92 | 40 | 12.9 | 4.1 | 85 |
| SPARTAN SPLASH ** | 454 | 384 | 89 | 15 | 60 | 25 | 0 | 0 | 85 | 25 | 14.2 | 3.3 | 71 |
| WANETA | 417 | 377 | 88 | 6 | 40 | 49 | 5 | 0 | 94 | 54 | 9.0 | 4.8 | 73 |
| Average: | 490 | 418 | 97 | 10 | 51 | 36 | 2 | 0 | 90 | 39 | 12.8 | 4.1 | 77 |
| Maximum: | 577 | 513 | 119 | 27 | 67 | 51 | 9 | 1 | 96 | 60 | 19.6 | 5.4 | 90 |
| Minimum: | 376 | 312 | 73 | 3 | 37 | 6 | 0 | 0 | 73 | 6 | 8.6 | 2.8 | 61 |
| Waller-Duncan | | | | | | | | | | | | | |
| LSD (k=100) | 66 | 63 | | | | | | | | | 2 | 0.4 | 4 |
| C.V. (%) | (8) | (9) | | | | | | | | | (8) | (5) | (3) |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 7

Maturity Ratings: Aug 19

Vinekill Date: Aug 20

Harvest Date: Sep 5

Note: all entries are in 3 replications except for those denoted by ** which are in two replications.

Statistical analysis carried out on those in 3 replications only.

Upstate New York Table 9. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the late maturity trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| ATLANTIC | 6.3 | 2 | 6 | 5.7 | 4.9 | 1.5 | 1.2 | 1.3 | 0.9 | 23.3 | 0.0 | 0.0 | 0.0 | 2.8 |
| GENESEE | 8.3 | 3 | 7 | 6.0 | 7.0 | 5.1 | 0.3 | 0.3 | 1.3 | 3.3 | 0.0 | 0.0 | 0.0 | 0.7 |
| JACQUELINE LEE | 7.7 | 6 | 8 | 5.7 | 13.7 | 3.8 | 7.1 | 0.9 | 1.8 | 3.3 | 0.0 | 0.0 | 0.0 | 3.2 |
| KATAHDIN | 6.3 | 2 | 7 | 5.8 | 4.6 | 3.0 | 0.5 | 0.0 | 1.1 | 20.0 | 0.0 | 0.0 | 0.0 | 1.7 |
| LAMOKA | 6.3 | 2 | 7 | 5.5 | 1.1 | 1.1 | 0.1 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 2.0 |
| MARCY | 7.7 | 3 | 5 | 5.0 | 5.6 | 2.1 | 0.0 | 0.0 | 3.5 | 20.0 | 0.0 | 3.3 | 0.0 | 1.7 |
| MISSAUKEE | 7.7 | 2 | 6 | 5.7 | 3.2 | 2.7 | 0.0 | 0.1 | 0.4 | 3.3 | 0.0 | 0.0 | 0.0 | 4.0 |
| NY140 | 7.0 | 3 | 8 | 5.8 | 6.5 | 4.2 | 1.0 | 0.0 | 1.3 | 20.0 | 0.0 | 0.0 | 0.0 | 1.2 |
| NY148 ** | 7.5 | 1 | 6 | 6.0 | 2.7 | 1.1 | 0.1 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| NY152 ** | 7.5 | 2 | 6 | 5.5 | 3.3 | 3.0 | 0.0 | 0.0 | 0.2 | 10.0 | 0.0 | 0.0 | 0.0 | 1.8 |
| REBA ** | 6.5 | 3 | 7 | 5.5 | 4.3 | 2.7 | 0.8 | 0.0 | 0.8 | 70.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| SNOWDEN | 6.3 | 1 | 6 | 3.3 | 3.2 | 2.3 | 0.4 | 0.4 | 0.1 | 13.3 | 0.0 | 0.0 | 0.0 | 4.0 |
| SPARTAN SPLASH ** | 6.5 | 2 | 8 | 7.8 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 | 15.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| WANETA | 7.7 | 1 | 8 | 6.7 | 4.0 | 2.5 | 0.2 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Average: | 7.1 | 2 | 7 | 5.7 | 4.6 | 2.5 | 0.8 | 0.2 | 1.1 | 14.6 | 0.0 | 0.2 | 0.0 | 1.8 |
| Maximum: | 8.3 | 6 | 8 | 7.8 | 13.7 | 5.1 | 7.1 | 1.3 | 3.5 | 70.0 | 0.0 | 3.3 | 0.0 | 4.0 |
| Minimum: | 6.3 | 1 | 5 | 3.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 10. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the red and purple-skinned variety trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--------------------------------|----|----|----|---|-------------------|--------|------------|----------|----------------|
| | | Cwt/A | % of Std. | (% of total yield) | | | | | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | |
| | | | | 1 | 2 | 3 | 4 | 5 | to 4" | to 4 " | | | |
| ADIRONDACK BLUE | 343 | 302 | 62 | 8 | 61 | 29 | 1 | 0 | 92 | 30 | 8.4 | 4.3 | 77 |
| ADIRONDACK RED | 519 | 434 | 89 | 14 | 71 | 15 | 0 | 0 | 86 | 15 | 15.4 | 3.5 | 70 |
| A05180-3PY | 684 | 578 | 119 | 9 | 61 | 28 | 1 | 0 | 91 | 29 | 18.4 | 3.9 | 72 |
| A05182-7RY | 656 | 552 | 114 | 13 | 69 | 18 | 0 | 0 | 87 | 18 | 19.9 | 3.4 | 69 |
| AF4565-1 | 463 | 385 | 79 | 9 | 66 | 25 | 0 | 0 | 91 | 25 | 12.3 | 4.0 | 64 |
| AF5041-1 * | 422 | 377 | 77 | 7 | 63 | 25 | 5 | 0 | 93 | 30 | 11.0 | 4.0 | 63 |
| AF5131-2 * | 486 | 399 | 82 | 5 | 59 | 34 | 2 | 0 | 95 | 36 | 11.1 | 4.6 | 66 |
| AF5154-2 * | 447 | 356 | 73 | 15 | 56 | 25 | 4 | 0 | 85 | 29 | 11.8 | 3.9 | 56 |
| AF5160-7 * | 447 | 357 | 73 | 4 | 59 | 32 | 4 | 0 | 96 | 37 | 9.6 | 4.9 | 64 |
| AF5245-1 * | 537 | 479 | 99 | 7 | 52 | 40 | 1 | 0 | 93 | 41 | 12.8 | 4.4 | 79 |
| AF5274-6 * | 632 | 484 | 99 | 18 | 58 | 22 | 2 | 0 | 82 | 24 | 19.5 | 3.4 | 69 |
| AF5356-3 * | 320 | 225 | 46 | 14 | 65 | 16 | 2 | 3 | 83 | 18 | 10.2 | 3.3 | 70 |
| AOTX91861-41 | 620 | 565 | 116 | 4 | 37 | 51 | 7 | 1 | 95 | 58 | 10.9 | 6.0 | 64 |
| ATTX01178-1R | 540 | 484 | 100 | 3 | 37 | 49 | 10 | 1 | 96 | 59 | 9.9 | 5.7 | 70 |
| B2676-2 | 483 | 391 | 80 | 14 | 69 | 17 | 1 | 0 | 86 | 18 | 14.2 | 3.5 | 79 |
| B2942-6 * | 331 | 264 | 54 | 20 | 65 | 15 | 0 | 0 | 80 | 15 | 11.1 | 3.1 | 71 |
| B3034-7 * | 475 | 356 | 73 | 15 | 69 | 16 | 0 | 0 | 85 | 16 | 15.9 | 3.1 | 70 |
| B3034-9 * | 454 | 361 | 74 | 18 | 75 | 6 | 0 | 0 | 82 | 6 | 15.9 | 3.0 | 71 |
| BNC201-1 | 544 | 508 | 105 | 3 | 51 | 43 | 4 | 0 | 97 | 46 | 11.1 | 5.1 | 78 |
| BNC304-1 * | 383 | 310 | 64 | 14 | 71 | 14 | 1 | 0 | 86 | 15 | 11.4 | 3.5 | 57 |
| BNC306-2 * | 356 | 298 | 61 | 11 | 60 | 27 | 0 | 2 | 87 | 27 | 10.4 | 3.6 | 70 |
| BNC306-3 * | 458 | 345 | 71 | 24 | 67 | 10 | 0 | 0 | 76 | 10 | 16.7 | 2.9 | 66 |
| BNC314-5 * | 422 | 359 | 74 | 11 | 67 | 22 | 0 | 0 | 89 | 22 | 12.4 | 3.5 | 62 |
| BNC314-8 * | 395 | 327 | 67 | 14 | 66 | 15 | 6 | 0 | 86 | 21 | 12.3 | 3.3 | 76 |
| BNC315-5 * | 520 | 468 | 96 | 7 | 65 | 28 | 0 | 0 | 93 | 28 | 13.4 | 4.1 | 76 |
| BNC316-1 * | 546 | 524 | 108 | 2 | 52 | 44 | 2 | 0 | 98 | 46 | 11.2 | 5.1 | 73 |
| BNC320-2 * | 460 | 352 | 72 | 19 | 70 | 10 | 0 | 0 | 81 | 10 | 16.0 | 3.0 | 69 |
| BNC322-2 * | 440 | 354 | 73 | 4 | 60 | 31 | 5 | 0 | 96 | 36 | 9.4 | 4.8 | 62 |

(continued)

Upstate New York Table 10. -(cont'd)- Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight and specific gravity for the red and purple-skinned variety trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--|----|----|----|---|-------------------|--------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | |
| | | | | | | | | | to 4" | to 4 " | | | |
| CHIEFTAIN | 532 | 486 | 100 | 7 | 53 | 37 | 3 | 0 | 93 | 40 | 12.4 | 4.5 | 65 |
| CO04159-1R | 289 | 252 | 52 | 11 | 58 | 31 | 1 | 0 | 89 | 31 | 7.5 | 4.0 | 61 |
| DARK RED NORLAND | 333 | 307 | 63 | 4 | 55 | 38 | 1 | 1 | 95 | 39 | 7.3 | 4.7 | 56 |
| K45-2 | 479 | 420 | 86 | 8 | 63 | 28 | 1 | 0 | 92 | 29 | 13.0 | 3.8 | 54 |
| K100-3 | 651 | 554 | 114 | 12 | 61 | 25 | 2 | 0 | 88 | 27 | 17.9 | 3.8 | 60 |
| MASQUERADE | 400 | 307 | 63 | 10 | 54 | 32 | 3 | 0 | 90 | 35 | 10.6 | 3.9 | 78 |
| (MSU) RMPR#1 | 561 | 400 | 82 | 24 | 70 | 5 | 0 | 0 | 76 | 5 | 21.8 | 2.7 | 77 |
| NORDONNA | 558 | 487 | 100 | 7 | 61 | 31 | 1 | 0 | 93 | 32 | 13.9 | 4.2 | 67 |
| NDTX5438-11R | 475 | 427 | 88 | 5 | 47 | 41 | 6 | 2 | 93 | 47 | 9.8 | 5.0 | 62 |
| PETER WILCOX | 500 | 446 | 92 | 9 | 70 | 20 | 1 | 0 | 91 | 21 | 13.4 | 3.9 | 74 |
| RED MARIA | 705 | 659 | 136 | 4 | 39 | 48 | 8 | 0 | 95 | 56 | 13.6 | 5.4 | 73 |
| W6002-1R | 486 | 413 | 85 | 12 | 58 | 29 | 2 | 0 | 88 | 31 | 13.0 | 3.9 | 62 |
| W8370-2R | 446 | 339 | 70 | 23 | 76 | 1 | 0 | 0 | 77 | 1 | 16.8 | 2.8 | 76 |
| W8405-1R | 515 | 402 | 83 | 19 | 70 | 11 | 0 | 0 | 81 | 11 | 17.1 | 3.1 | 66 |
| W8893-1R | 444 | 345 | 71 | 20 | 74 | 6 | 0 | 0 | 80 | 6 | 15.8 | 2.9 | 58 |
| W9426-3R/Y | 629 | 526 | 108 | 8 | 69 | 23 | 0 | 0 | 92 | 23 | 16.7 | 3.9 | 77 |
| W9746-4R | 499 | 395 | 81 | 13 | 65 | 20 | 1 | 1 | 86 | 21 | 15.1 | 3.5 | 67 |
| W9765-3R | 380 | 248 | 51 | 12 | 61 | 24 | 3 | 0 | 88 | 27 | 10.5 | 3.8 | 63 |
| Average: | 484 | 404 | 83 | 11 | 60 | 25 | 2 | 0 | 89 | 27 | 13.2 | 3.9 | 68 |
| Maximum: | 705 | 659 | 136 | 24 | 76 | 51 | 10 | 5 | 98 | 59 | 21.8 | 6.0 | 79 |
| Minimum: | 289 | 225 | 46 | 1 | 2 | 1 | 0 | 0 | 76 | 1 | 7.3 | 2.7 | 54 |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 9

Maturity Ratings: Sep 5

Vinekill Date: Sep 5

Harvest Date: Sep 27

Note: all entries are in 2 replications except for those denoted by * which are in 1 replication.

Upstate New York Table 11. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the red and purple-skinned variety trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bm. Center | Vasc. Disc. | Int. Nec. | |
| ADIRONDACK BLUE | 5.0 | 4 | 7 | 5.5 | 3.5 | 1.5 | 2.0 | 0.0 | 0.0 | 5.0 | 5.0 | 0.0 | 0.0 | 1.0 |
| ADIRONDACK RED | 2.0 | 3 | 8 | 6.0 | 2.2 | 0.3 | 1.2 | 0.2 | 0.5 | 0.0 | 5.0 | 0.0 | 0.0 | 2.0 |
| A05180-3PY | 5.5 | 1 | 9 | 7.0 | 6.2 | 0.3 | 0.8 | 5.0 | 0.0 | 25.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| A05182-7RY | 8.0 | 3 | 8 | 5.5 | 2.9 | 1.4 | 0.5 | 0.0 | 1.0 | 5.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF4565-1 | 3.5 | 3 | 8 | 4.0 | 8.3 | 0.3 | 3.7 | 3.2 | 1.2 | 5.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| AF5041-1 * | 4.0 | 1 | 8 | 5.0 | 3.5 | 0.0 | 0.0 | 1.7 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5131-2 * | 5.0 | 2 | 8 | 3.0 | 13.0 | 0.0 | 6.1 | 4.7 | 2.2 | 80.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5154-2 * | 3.0 | 3 | 8 | 5.0 | 5.8 | 0.0 | 2.8 | 1.1 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5160-7 * | 3.0 | 3 | 8 | 6.0 | 16.1 | 0.0 | 8.0 | 6.1 | 2.0 | 30.0 | 20.0 | 0.0 | 0.0 | 3.0 |
| AF5245-1 * | 6.0 | 3 | 8 | 6.5 | 4.0 | 0.4 | 1.4 | 2.2 | 0.0 | 40.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5274-6 * | 6.0 | 3 | 8 | 5.5 | 5.7 | 1.6 | 2.5 | 1.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| AF5356-3 * | 3.0 | 3 | 8 | 5.5 | 12.5 | 2.4 | 3.3 | 5.0 | 1.8 | 20.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| AOTX91861-41 | 4.0 | 3 | 9 | 6.8 | 4.2 | 0.8 | 0.3 | 1.9 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| ATTX01178-1R | 6.0 | 2 | 8 | 6.5 | 6.5 | 3.3 | 2.0 | 0.5 | 0.7 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 |
| B2676-2 | 3.5 | 3 | 7 | 4.0 | 5.6 | 1.2 | 3.5 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2942-6 * | 3.0 | 1 | 8 | 6.5 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B3034-7 * | 3.0 | 1 | 6 | 4.0 | 10.1 | 0.6 | 1.0 | 3.9 | 4.5 | 40.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| B3034-9 * | 1.0 | 1 | 7 | 5.5 | 2.1 | 1.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| BNC201-1 | 6.5 | 3 | 8 | 6.0 | 3.8 | 0.6 | 0.2 | 0.9 | 2.1 | 10.0 | 0.0 | 0.0 | 0.0 | 1.3 |
| BNC304-1 * | 6.0 | 2 | 8 | 4.0 | 4.9 | 0.1 | 1.9 | 1.6 | 1.3 | 0.0 | 0.0 | 10.0 | 0.0 | 1.5 |
| BNC306-2 * | 3.0 | 2 | 8 | 5.5 | 3.5 | 0.0 | 2.7 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| BNC306-3 * | 5.0 | 1 | 8 | 7.0 | 1.1 | 0.0 | 0.3 | 0.8 | 0.0 | 10.0 | 10.0 | 10.0 | 0.0 | 1.0 |
| BNC314-5 * | 4.0 | 2 | 8 | 3.0 | 4.1 | 0.3 | 1.2 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| BNC314-8 * | 3.0 | 3 | 7 | 5.0 | 3.6 | 0.0 | 0.4 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| BNC315-5 * | 2.0 | 3 | 6 | 5.0 | 2.9 | 0.2 | 1.4 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| BNC316-1 * | 5.0 | 2 | 7 | 6.0 | 1.9 | 0.0 | 0.3 | 0.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| BNC320-2 * | 5.0 | 1 | 8 | 6.5 | 4.1 | 0.5 | 1.4 | 0.2 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| BNC322-2 * | 6.0 | 1 | 8 | 5.5 | 15.6 | 0.8 | 1.5 | 10.2 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | na |

(continued)

Upstate New York Table 11. -(cont'd)- Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the red and purple-skinned variety trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| CHIEFTAIN | 4.5 | 3 | 8 | 5.0 | 1.6 | 0.8 | 0.5 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 |
| CO04159-1R | 3.0 | 1 | 8 | 7.3 | 3.0 | 0.6 | 0.5 | 1.5 | 0.4 | 5.0 | 10.0 | 0.0 | 0.0 | 1.0 |
| DARK RED NORLAND | 2.5 | 3 | 8 | 6.0 | 2.3 | 0.0 | 1.2 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| K45-2 | 7.5 | 3 | 8 | 6.0 | 3.9 | 0.4 | 0.4 | 0.9 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 |
| K100-3 | 3.5 | 4 | 8 | 4.0 | 3.3 | 0.0 | 1.3 | 0.8 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| MASQUERADE | 6.5 | 2 | 8 | 6.5 | 12.7 | 6.1 | 4.9 | 0.4 | 1.4 | 20.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| (MSU) RMPR#1 | 3.0 | 1 | 6 | 3.5 | 4.7 | 1.2 | 2.4 | 0.2 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 |
| NORDONNA | 5.5 | 1 | 8 | 6.3 | 5.4 | 1.9 | 2.2 | 0.9 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| NDTX5438-11R | 4.0 | 3 | 8 | 6.5 | 3.5 | 1.6 | 1.1 | 0.8 | 0.0 | 35.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| PETER WILCOX | 5.0 | 3 | 6 | 5.0 | 1.6 | 0.4 | 1.0 | 0.2 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| RED MARIA | 7.5 | 1 | 5 | 5.0 | 1.8 | 0.8 | 0.4 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 |
| W6002-1R | 4.0 | 3 | 7 | 6.0 | 3.3 | 0.6 | 1.5 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| W8370-2R | 5.0 | 1 | 6 | 4.0 | 0.8 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| W8405-1R | 6.5 | 2 | 8 | 5.5 | 3.2 | 1.9 | 0.6 | 0.3 | 0.4 | 0.0 | 0.0 | 0.0 | 15.0 | 2.0 |
| W8893-1R | 2.5 | 5 | 9 | 7.8 | 2.8 | 1.0 | 0.8 | 1.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| W9426-3R/Y | 6.0 | 2 | 6 | 3.5 | 8.1 | 1.2 | 0.8 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| W9746-4R | 4.0 | 2 | 8 | 6.0 | 6.6 | 1.6 | 2.4 | 1.3 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| W9765-3R | 2.0 | 1 | 8 | 7.0 | 21.9 | 3.8 | 1.4 | 15.6 | 1.0 | 5.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Average: | 4.4 | 2 | 8 | 5.5 | 5.4 | 0.9 | 1.6 | 1.9 | 1.0 | 8.3 | 1.1 | 0.5 | 0.3 | 1.7 |
| Maximum: | 8.0 | 5 | 9 | 7.8 | 21.9 | 6.1 | 8.0 | 15.6 | 4.5 | 80.0 | 20.0 | 10.0 | 15.0 | 4.0 |
| Minimum: | 1.0 | 1 | 5 | 3.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 12. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the russet-skinned and long tuber white-skinned variety trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield ² | | Size Distribution ¹ | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|-------------------------|--------------|--------------------------------|----|----|----|----|-------------------|-----------|------------|----------|----------------|
| | | Cwt/A | % of Std. | (% of total yield) | | | | | 4 oz. | 8 oz. | #/ft. | wt.(oz.) | |
| | | | | 1 | 2 | 3 | 4 | 5 | to 16 oz. | to 16 oz. | | | |
| A01010-1 | 441 | 335 | 113 | 24 | 65 | 11 | 0 | 0 | 76 | 12 | 10.9 | 4.2 | 82 |
| A01025-4 ** | 398 | 269 | 91 | 23 | 43 | 19 | 10 | 5 | 72 | 29 | 7.6 | 5.4 | 79 |
| A03141-6 ** | 471 | 361 | 121 | 19 | 58 | 18 | 4 | 0 | 81 | 23 | 10.0 | 4.9 | 89 |
| A03158-2TE ** | 444 | 335 | 113 | 18 | 48 | 21 | 12 | 1 | 81 | 33 | 8.7 | 5.3 | 78 |
| A03873-3NV ** | 246 | 124 | 42 | 37 | 53 | 9 | 1 | 0 | 63 | 10 | 6.7 | 3.8 | 73 |
| A06020-8 | 328 | 221 | 74 | 30 | 63 | 7 | 0 | 0 | 70 | 7 | 8.9 | 3.9 | 85 |
| A06914-3CR | 455 | 333 | 112 | 19 | 54 | 24 | 2 | 1 | 80 | 26 | 10.1 | 4.7 | 76 |
| A07008-43 | 394 | 298 | 100 | 23 | 57 | 17 | 2 | 0 | 77 | 20 | 8.7 | 4.7 | 87 |
| A07103-1T | 271 | 142 | 48 | 42 | 44 | 10 | 3 | 1 | 57 | 13 | 7.9 | 3.6 | 79 |
| A08014-9TE | 305 | 227 | 76 | 24 | 52 | 20 | 4 | 0 | 76 | 25 | 6.5 | 4.8 | 76 |
| A08422-2VR | 344 | 226 | 76 | 21 | 43 | 24 | 6 | 5 | 74 | 31 | 6.8 | 5.3 | 76 |
| A08422-5VR | 388 | 262 | 88 | 7 | 29 | 39 | 13 | 13 | 81 | 52 | 5.9 | 6.9 | 64 |
| AC00395-2RU | 324 | 222 | 75 | 25 | 61 | 14 | 1 | 0 | 75 | 14 | 7.8 | 4.2 | 84 |
| AF4113-2 | 516 | 353 | 119 | 16 | 56 | 19 | 7 | 1 | 83 | 27 | 10.7 | 5.1 | 69 |
| AF4296-3 | 360 | 265 | 89 | 22 | 58 | 18 | 2 | 0 | 78 | 20 | 8.2 | 4.5 | 80 |
| AF4320-7 | 445 | 369 | 124 | 8 | 50 | 28 | 10 | 4 | 87 | 38 | 7.2 | 6.5 | 77 |
| AF4342-3 | 487 | 377 | 127 | 16 | 44 | 33 | 7 | 0 | 84 | 40 | 9.0 | 5.7 | 88 |
| AF4445-3 | 307 | 205 | 69 | 14 | 37 | 28 | 13 | 8 | 78 | 41 | 5.3 | 6.0 | 70 |
| AF4453-7 ** | 301 | 197 | 66 | 15 | 36 | 30 | 13 | 5 | 79 | 44 | 5.4 | 5.8 | 81 |
| AF4532-8 | 412 | 319 | 107 | 13 | 38 | 29 | 15 | 5 | 81 | 43 | 7.0 | 6.1 | 71 |

(continued)

Upstate New York Table 12. -(cont'd)- Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight and specific gravity for the russet-skinned and long tuber white-skinned variety trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield ² | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|-------------------------|--------------|--|----|----|----|----|--------------------|--------------------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 4 oz. to 16 oz. | 8 oz. to 16 oz. | #/ft. | wt.(oz.) | |
| AF4615-5 ** | 317 | 222 | 75 | 27 | 52 | 17 | 4 | 0 | 73 | 21 | 7.2 | 4.6 | 88 |
| AF4692-1 ** | 388 | 151 | 51 | 18 | 40 | 27 | 9 | 5 | 77 | 36 | 7.5 | 5.4 | 76 |
| AF4950-1 * | 389 | 218 | 73 | 40 | 49 | 12 | 0 | 0 | 60 | 12 | 10.2 | 4.0 | 82 |
| AF4950-2 * | 349 | 212 | 71 | 22 | 53 | 20 | 3 | 2 | 76 | 23 | 7.8 | 4.6 | 72 |
| AF4953-2 * | 406 | 352 | 119 | 10 | 42 | 37 | 11 | 0 | 90 | 48 | 7.1 | 6.0 | 73 |
| AF4953-6 * | 305 | 244 | 82 | 14 | 43 | 37 | 6 | 0 | 86 | 43 | 5.7 | 5.6 | 75 |
| AF4957-5 * | 358 | 241 | 81 | 24 | 50 | 21 | 5 | 0 | 76 | 26 | 8.6 | 4.3 | 70 |
| AF4989-1 * | 436 | 319 | 107 | 26 | 62 | 12 | 0 | 0 | 74 | 12 | 11.4 | 4.0 | 77 |
| AF5188-1 * | 179 | 40 | 14 | 65 | 35 | 0 | 0 | 0 | 35 | 0 | 6.1 | 3.1 | 60 |
| AF5235-2 * | 490 | 362 | 122 | 25 | 55 | 19 | 1 | 0 | 75 | 20 | 11.2 | 4.6 | 87 |
| AF5305-3 * | 301 | 235 | 79 | 12 | 36 | 36 | 14 | 3 | 86 | 50 | 5.5 | 5.7 | 76 |
| CO03276-5RU | 395 | 280 | 94 | 19 | 49 | 26 | 4 | 1 | 79 | 30 | 8.0 | 5.1 | 75 |
| RUSSET BURBANK | 409 | 297 | 100 | 24 | 51 | 19 | 6 | 0 | 76 | 25 | 9.3 | 4.6 | 81 |
| SHEPODY | 435 | 287 | 97 | 12 | 48 | 23 | 11 | 6 | 82 | 34 | 7.3 | 6.2 | 76 |
| TETON RUSSET | 512 | 363 | 122 | 11 | 53 | 19 | 8 | 8 | 81 | 27 | 9.3 | 5.8 | 73 |
| Average: | 380 | 265 | 89 | 21 | 47 | 21 | 6 | 2 | 76 | 27 | 8.0 | 5.0 | 77 |
| Maximum: | 516 | 377 | 127 | 65 | 65 | 39 | 15 | 13 | 90 | 52 | 11.4 | 6.9 | 89 |
| Minimum: | 179 | 40 | 14 | 1 | 2 | 0 | 0 | 0 | 35 | 0 | 5.3 | 3.1 | 60 |
| Waller-Duncan | | | | | | | | | | | | | |
| LSD (k=100) | 82 | 89 | | | | | | | | | 2 | 1 | 4 |
| C.V. (%) | (13) | (18) | | | | | | | | | (13) | (7) | (3) |

¹Tuber size classes: 1 = under 4 oz., 2 = 4 to 8 oz., 3 = 8 to 12 oz., 4 = 12 to 16 oz., 5 = over 16 oz. ²Mkt. Yield = 4 to 16 oz. less defects.

Plant Date: May 6

Maturity Ratings: Aug 19

Vinekill Date: Aug 20

Harvest Date: Sep 25

Note: all entries are in 3 replications except for those denoted by ** which are in 2 replications, or denoted by * which are in 1 replication.

Statistical analysis was carried out only on those in 3 reps.

Upstate New York Table 13. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the russet-skinned and long tuber white-skinned variety trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| A01010-1 | 7.0 | 6 | 2 | 6.0 | 0.5 | 0.0 | 0.2 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| A01025-4 ** | 6.5 | 8 | 6 | 4.5 | 5.3 | 0.2 | 2.3 | 1.3 | 1.5 | 20.0 | 0.0 | 0.0 | 0.0 | 2.3 |
| A03141-6 ** | 6.0 | 8 | 4 | 4.8 | 4.0 | 0.0 | 2.6 | 0.3 | 1.1 | 95.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| A03158-2TE ** | 7.0 | 8 | 3 | 5.8 | 5.3 | 0.5 | 2.5 | 2.3 | 0.0 | 35.0 | 0.0 | 0.0 | 0.0 | 1.3 |
| A03873-3NV ** | 7.0 | 6 | 6 | 4.5 | 12.9 | 7.5 | 5.4 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| A06020-8 | 6.0 | 6 | 6 | 3.0 | 2.8 | 0.3 | 1.5 | 0.2 | 0.8 | 6.7 | 0.0 | 0.0 | 0.0 | 3.0 |
| A06914-3CR | 7.7 | 8 | 6 | 4.2 | 7.1 | 2.6 | 2.4 | 0.4 | 1.6 | 30.0 | 0.0 | 3.3 | 0.0 | 1.5 |
| A07008-43 | 6.3 | 8 | 4 | 4.7 | 1.3 | 0.1 | 1.0 | 0.1 | 0.1 | 10.0 | 0.0 | 3.3 | 0.0 | 1.3 |
| A07103-1T | 6.7 | 6 | 6 | 4.3 | 6.8 | 0.4 | 0.8 | 4.0 | 1.7 | 36.7 | 0.0 | 0.0 | 0.0 | 0.7 |
| A08014-9TE | 5.7 | 5 | 4 | 4.7 | 2.6 | 0.2 | 0.8 | 0.2 | 1.4 | 16.7 | 0.0 | 0.0 | 0.0 | 1.8 |
| A08422-2VR | 7.3 | 8 | 3 | 5.3 | 7.5 | 0.8 | 5.1 | 1.1 | 0.5 | 6.7 | 0.0 | 0.0 | 0.0 | 1.8 |
| A08422-5VR | 6.3 | 8 | 6 | 4.2 | 14.0 | 2.4 | 4.6 | 5.9 | 1.0 | 0.0 | 0.0 | 3.3 | 0.0 | 1.7 |
| AC00395-2RU | 7.0 | 5 | 3 | 4.0 | 9.1 | 0.4 | 1.0 | 1.4 | 6.3 | 90.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| AF4113-2 | 6.3 | 8 | 8 | 4.0 | 14.4 | 3.0 | 3.2 | 5.0 | 3.2 | 0.0 | 0.0 | 3.3 | 0.0 | 2.5 |
| AF4296-3 | 7.0 | 8 | 6 | 3.5 | 5.2 | 2.1 | 1.5 | 0.6 | 1.1 | 13.3 | 0.0 | 0.0 | 0.0 | 2.7 |
| AF4320-7 | 7.0 | 8 | 6 | 4.0 | 4.0 | 0.5 | 3.5 | 0.0 | 0.0 | 26.7 | 0.0 | 6.7 | 0.0 | 2.5 |
| AF4342-3 | 7.3 | 6 | 5 | 3.0 | 6.6 | 1.9 | 4.2 | 0.2 | 0.4 | 33.3 | 0.0 | 0.0 | 0.0 | 1.8 |
| AF4445-3 | 6.3 | 6 | 2 | 5.2 | 10.9 | 0.9 | 3.8 | 5.3 | 0.9 | 20.0 | 0.0 | 6.7 | 3.3 | 1.3 |
| AF4453-7 ** | 7.5 | 8 | 6 | 3.5 | 13.4 | 4.3 | 7.2 | 0.0 | 1.8 | 20.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| AF4532-8 | 7.3 | 6 | 2 | 5.5 | 4.3 | 0.0 | 1.0 | 0.0 | 3.3 | 70.0 | 0.0 | 0.0 | 0.0 | 2.7 |

(continued)

Upstate New York Table 13. -(cont'd)- Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the russet-skinned and long tuber white-skinned variety trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| AF4615-5 ** | 7.5 | 6 | 6 | 4.5 | 3.2 | 1.5 | 0.6 | 0.7 | 0.4 | 50.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF4692-1 ** | 7.5 | 6 | 8 | 3.3 | 37.9 | 7.4 | 10.5 | 11.3 | 8.7 | 40.0 | 0.0 | 5.0 | 0.0 | 3.8 |
| AF4950-1 * | 6.0 | 5 | 6 | 4.0 | 4.4 | 1.2 | 1.2 | 0.0 | 2.0 | 10.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF4950-2 * | 7.0 | 6 | 6 | 4.0 | 15.1 | 4.4 | 3.7 | 0.0 | 7.1 | 70.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| AF4953-2 * | 7.0 | 6 | 6 | 4.0 | 3.1 | 0.5 | 2.5 | 0.0 | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| AF4953-6 * | 9.0 | 6 | 4 | 4.5 | 5.8 | 4.3 | 0.0 | 0.3 | 1.2 | 60.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| AF4957-5 * | 8.0 | 8 | 5 | 4.0 | 8.6 | 2.2 | 4.4 | 0.3 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| AF4989-1 * | 6.0 | 4 | 5 | 4.5 | 0.8 | 0.0 | 0.0 | 0.0 | 0.8 | 30.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| AF5188-1 * | 8.0 | 6 | 6 | 4.5 | 12.5 | 1.8 | 8.3 | 1.2 | 1.2 | 10.0 | 0.0 | 10.0 | 0.0 | 0.5 |
| AF5235-2 * | 7.0 | 5 | 6 | 4.0 | 1.6 | 1.2 | 0.0 | 0.4 | 0.0 | 20.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| AF5305-3 * | 8.0 | 6 | 6 | 4.5 | 7.8 | 1.5 | 4.1 | 1.2 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| CO03276-5RU | 7.0 | 8 | 3 | 6.0 | 9.1 | 0.0 | 2.8 | 3.4 | 2.9 | 30.0 | 0.0 | 3.3 | 0.0 | 0.3 |
| RUSSET BURBANK | 7.0 | 8 | 3 | 5.3 | 3.8 | 0.2 | 1.6 | 1.0 | 1.0 | 53.3 | 0.0 | 0.0 | 0.0 | 1.5 |
| SHEPODY | 7.0 | 8 | 8 | 3.3 | 15.4 | 3.9 | 5.3 | 4.1 | 2.0 | 46.7 | 0.0 | 3.3 | 0.0 | 1.8 |
| TETON RUSSET | 6.3 | 6 | 4 | 4.5 | 10.1 | 0.5 | 1.8 | 5.1 | 2.7 | 50.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| Average: | 7.0 | 7 | 5 | 4.4 | 7.9 | 1.7 | 2.9 | 1.6 | 1.7 | 29.6 | 0.0 | 1.4 | 0.1 | 1.9 |
| Maximum: | 9.0 | 8 | 8 | 6.0 | 37.9 | 7.5 | 10.5 | 11.3 | 8.7 | 95.0 | 0.0 | 10.0 | 3.3 | 3.8 |
| Minimum: | 5.7 | 4 | 2 | 3.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 14. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the Cornell University advanced white lines trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|--------------|-----|--|----|----|---|--------|-------------------|-------|------------|-----|----------------|
| | | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | | |
| | | | | | | | | to 4" | to 4 " | | | | |
| ANDOVER ** | 353 | 329 | 69 | 4 | 48 | 46 | 3 | 0 | 96 | 48 | 7.5 | 4.9 | 78 |
| ATLANTIC | 532 | 476 | 100 | 5 | 49 | 40 | 5 | 1 | 94 | 45 | 11.7 | 4.7 | 88 |
| H122-4 | 526 | 452 | 95 | 4 | 55 | 33 | 5 | 3 | 93 | 38 | 11.2 | 4.9 | 59 |
| J18-2 | 552 | 489 | 103 | 8 | 46 | 39 | 5 | 0 | 91 | 45 | 14.1 | 4.1 | 73 |
| J21-5 | 604 | 535 | 112 | 4 | 54 | 37 | 4 | 1 | 95 | 41 | 12.5 | 5.0 | 74 |
| K6-1 | 378 | 301 | 63 | 16 | 56 | 25 | 3 | 0 | 84 | 28 | 11.2 | 3.5 | 86 |
| K11-2 | 428 | 386 | 81 | 8 | 55 | 37 | 0 | 0 | 92 | 37 | 10.9 | 4.1 | 68 |
| K13-2 | 514 | 407 | 85 | 16 | 69 | 15 | 0 | 0 | 84 | 15 | 16.6 | 3.2 | 84 |
| K13-3 | 427 | 339 | 71 | 17 | 72 | 10 | 0 | 0 | 83 | 10 | 14.3 | 3.1 | 77 |
| K18-3 | 389 | 340 | 71 | 9 | 58 | 30 | 4 | 0 | 91 | 33 | 9.9 | 4.1 | 79 |
| K18-8 | 606 | 527 | 111 | 2 | 26 | 60 | 7 | 5 | 92 | 67 | 10.5 | 6.0 | 87 |
| K19-9 | 433 | 386 | 81 | 5 | 43 | 46 | 7 | 0 | 95 | 52 | 9.3 | 4.8 | 83 |
| K19-28 | 476 | 413 | 87 | 8 | 57 | 35 | 0 | 0 | 92 | 35 | 12.2 | 4.1 | 85 |
| K19-31 | 461 | 378 | 79 | 7 | 57 | 35 | 1 | 0 | 93 | 36 | 11.4 | 4.2 | 88 |
| K21-2 | 353 | 300 | 63 | 13 | 68 | 19 | 0 | 0 | 87 | 19 | 10.7 | 3.5 | 85 |
| K21-6 | 424 | 330 | 69 | 15 | 67 | 18 | 0 | 0 | 85 | 18 | 13.2 | 3.3 | 78 |
| K21-8 | 402 | 374 | 79 | 2 | 47 | 46 | 4 | 1 | 97 | 50 | 8.0 | 5.3 | 80 |
| K22-3 | 396 | 332 | 70 | 13 | 71 | 16 | 0 | 0 | 87 | 16 | 12.0 | 3.5 | 84 |
| K22-7 | 390 | 315 | 66 | 16 | 80 | 4 | 0 | 0 | 84 | 4 | 13.4 | 3.0 | 92 |
| K22-10 | 281 | 238 | 50 | 13 | 73 | 14 | 0 | 0 | 87 | 14 | 8.9 | 3.3 | 83 |
| K23-6 ** | 361 | 266 | 56 | 25 | 73 | 2 | 0 | 0 | 75 | 2 | 13.5 | 2.8 | 79 |
| K23-13 | 547 | 482 | 101 | 9 | 69 | 23 | 0 | 0 | 91 | 23 | 15.1 | 3.8 | 91 |
| K27-1 | 567 | 498 | 105 | 9 | 57 | 28 | 5 | 0 | 91 | 33 | 14.7 | 4.0 | 87 |
| K27-3 | 480 | 411 | 86 | 9 | 59 | 31 | 1 | 0 | 91 | 32 | 12.0 | 4.1 | 89 |
| K27-4 | 549 | 486 | 102 | 6 | 57 | 34 | 2 | 0 | 94 | 37 | 13.0 | 4.4 | 80 |

(continued)

Upstate New York Table 14. -(cont'd)- Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight and specific gravity for the Cornell University advanced white lines trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. | |
|---------------------------------|-------------------------|------------|--------------|--------------------------------|----|----|----|---|-------------------|--------|------------|----------|----------------|--|
| | | Cwt/A | % of Std. | (% of total yield) | | | | | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | | |
| | | | | 1 | 2 | 3 | 4 | 5 | to 4" | to 4 " | | | | |
| K28-6 | 598 | 519 | 109 | 4 | 51 | 45 | 1 | 0 | 96 | 45 | 12.8 | 4.9 | 83 | |
| K28-7 | 711 | 619 | 130 | 7 | 62 | 30 | 2 | 0 | 93 | 31 | 17.4 | 4.3 | 90 | |
| K28-14 | 604 | 540 | 113 | 3 | 39 | 51 | 5 | 1 | 96 | 56 | 12.6 | 5.0 | 90 | |
| K28-18 | 586 | 502 | 106 | 9 | 78 | 13 | 1 | 0 | 91 | 14 | 16.1 | 3.8 | 99 | |
| K28-21 | 507 | 452 | 95 | 2 | 23 | 59 | 14 | 2 | 96 | 73 | 7.8 | 6.8 | 87 | |
| K28-26 | 463 | 365 | 77 | 14 | 69 | 17 | 0 | 0 | 86 | 17 | 13.8 | 3.5 | 94 | |
| K30-9 | 495 | 414 | 87 | 9 | 64 | 25 | 1 | 0 | 91 | 26 | 13.9 | 3.7 | 89 | |
| K31-4 | 582 | 535 | 112 | 4 | 52 | 41 | 2 | 0 | 96 | 43 | 12.7 | 4.8 | 87 | |
| K34-1 | 459 | 391 | 82 | 14 | 73 | 14 | 0 | 0 | 86 | 14 | 14.0 | 3.5 | 86 | |
| K107-4 | 457 | 402 | 84 | 10 | 61 | 28 | 1 | 0 | 90 | 29 | 12.2 | 3.9 | 77 | |
| K107-8 | 486 | 417 | 88 | 11 | 65 | 23 | 0 | 0 | 89 | 23 | 14.4 | 3.6 | 89 | |
| KATAHDIN ** | 339 | 303 | 64 | 8 | 63 | 29 | 0 | 0 | 92 | 29 | 9.1 | 3.9 | 68 | |
| NY115 | 428 | 388 | 82 | 6 | 59 | 31 | 3 | 1 | 93 | 34 | 9.2 | 5.6 | 75 | |
| REBA | 643 | 611 | 128 | 2 | 44 | 47 | 6 | 0 | 97 | 53 | 12.6 | 5.3 | 78 | |
| SNOWDEN | 640 | 576 | 121 | 8 | 64 | 25 | 2 | 0 | 92 | 27 | 16.9 | 3.9 | 92 | |
| SUPERIOR | 580 | 536 | 113 | 4 | 50 | 43 | 3 | 0 | 96 | 46 | 12.1 | 5.0 | 77 | |
| Average: | 488 | 423 | 89 | 9 | 57 | 30 | 2 | 0 | 91 | 33 | 12.3 | 4.2 | 83 | |
| Maximum: | 711 | 619 | 130 | 25 | 80 | 60 | 14 | 5 | 97 | 73 | 17.4 | 6.8 | 99 | |
| Minimum: | 281 | 238 | 50 | 1 | 2 | 2 | 0 | 0 | 75 | 2 | 7.5 | 2.8 | 59 | |
| Waller-Duncan | | | | | | | | | | | | | | |
| LSD (k=100) | 102 | 94 | | | | | | | | | 3 | 1 | 3 | |
| C.V. (%) | (13) | (14) | | | | | | | | | (16) | (14) | (3) | |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 9

Maturity Ratings: Sep 5

Vinekill Date: Sep 11

Harvest Date: Oct 2

Note: all entries are in 3 replications except for those denoted by ** which are in 2 replications.

Statistical analysis was carried out only on those with 3 replications.

Upstate New York Table 15. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the Cornell University advanced white lines trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bm. Center | Vasc. Disc. | Int. Nec. | |
| ANDOVER ** | 3.0 | 3 | 6 | 6.5 | 2.5 | 0.4 | 0.2 | 0.6 | 1.2 | 10.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| ATLANTIC | 5.7 | 1 | 5 | 5.3 | 4.3 | 1.8 | 0.9 | 0.1 | 1.4 | 3.3 | 0.0 | 3.3 | 0.0 | 2.5 |
| H122-4 | 3.3 | 5 | 8 | 4.0 | 6.8 | 1.0 | 3.0 | 0.0 | 2.7 | 3.3 | 20.0 | 0.0 | 0.0 | 3.2 |
| J18-2 | 4.3 | 1 | 8 | 5.3 | 2.5 | 1.0 | 0.0 | 0.2 | 1.3 | 6.7 | 3.3 | 0.0 | 0.0 | 1.2 |
| J21-5 | 4.0 | 5 | 8 | 6.5 | 6.1 | 1.5 | 2.2 | 1.3 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 |
| K6-1 | 4.3 | 1 | 8 | 6.5 | 4.4 | 1.6 | 0.2 | 0.2 | 2.5 | 16.7 | 3.3 | 0.0 | 0.0 | 0.7 |
| K11-2 | 4.3 | 2 | 8 | 6.3 | 2.2 | 1.7 | 0.5 | 0.0 | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 2.0 |
| K13-2 | 3.0 | 1 | 6 | 3.7 | 4.3 | 1.4 | 2.6 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| K13-3 | 5.3 | 1 | 6 | 5.0 | 3.0 | 1.7 | 0.4 | 0.4 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 |
| K18-3 | 4.0 | 2 | 8 | 4.0 | 4.1 | 2.3 | 1.2 | 0.6 | 0.0 | 16.7 | 0.0 | 0.0 | 0.0 | 2.0 |
| K18-8 | 5.7 | 3 | 8 | 4.3 | 5.5 | 1.9 | 0.5 | 1.5 | 1.6 | 3.3 | 0.0 | 0.0 | 0.0 | 2.2 |
| K19-9 | 6.7 | 3 | 6 | 5.3 | 6.0 | 4.7 | 0.5 | 0.2 | 0.6 | 6.7 | 0.0 | 0.0 | 0.0 | 1.5 |
| K19-28 | 6.0 | 1 | 6 | 4.7 | 4.9 | 2.9 | 0.0 | 0.5 | 1.6 | 26.7 | 0.0 | 0.0 | 0.0 | 1.7 |
| K19-31 | 3.0 | 2 | 6 | 3.0 | 10.8 | 3.2 | 4.0 | 3.1 | 0.5 | 20.0 | 0.0 | 0.0 | 0.0 | 3.8 |
| K21-2 | 3.3 | 3 | 6 | 4.0 | 1.7 | 1.0 | 0.7 | 0.0 | 0.0 | 23.3 | 0.0 | 0.0 | 0.0 | 2.0 |
| K21-6 | 5.0 | 1 | 6 | 4.5 | 7.2 | 1.3 | 3.3 | 2.2 | 0.5 | 3.3 | 0.0 | 0.0 | 0.0 | 1.8 |
| K21-8 | 4.7 | 4 | 6 | 3.7 | 3.7 | 0.4 | 1.1 | 1.7 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| K22-3 | 4.3 | 1 | 8 | 5.0 | 2.9 | 1.2 | 0.9 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 |
| K22-7 | 5.3 | 3 | 8 | 4.0 | 3.9 | 3.4 | 0.0 | 0.1 | 0.4 | 6.7 | 0.0 | 0.0 | 0.0 | 2.0 |
| K22-10 | 3.3 | 1 | 8 | 4.2 | 2.0 | 1.7 | 0.1 | 0.0 | 0.2 | 6.7 | 0.0 | 0.0 | 0.0 | 1.8 |
| K23-6 ** | 3.0 | 1 | 7 | 4.5 | 1.2 | 1.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 |
| K23-13 | 4.0 | 2 | 6 | 4.0 | 3.0 | 1.3 | 1.0 | 0.0 | 0.7 | 23.3 | 6.7 | 0.0 | 0.0 | 1.2 |
| K27-1 | 5.7 | 2 | 6 | 6.3 | 2.6 | 2.0 | 0.2 | 0.2 | 0.2 | 13.3 | 0.0 | 0.0 | 0.0 | 0.7 |
| K27-3 | 7.0 | 3 | 8 | 6.2 | 5.7 | 3.5 | 1.1 | 0.6 | 0.6 | 10.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| K27-4 | 5.0 | 5 | 8 | 6.2 | 5.6 | 1.7 | 1.7 | 1.8 | 0.4 | 10.0 | 0.0 | 0.0 | 0.0 | 0.5 |

(continued)

Upstate New York Table 15. -(cont'd)- Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the Cornell University advanced white lines trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| K28-6 | 2.0 | 3 | 6 | 5.2 | 9.3 | 1.2 | 0.8 | 6.9 | 0.5 | 6.7 | 0.0 | 0.0 | 0.0 | 2.7 |
| K28-7 | 5.0 | 5 | 7 | 3.3 | 6.1 | 3.4 | 2.0 | 0.7 | 0.1 | 10.0 | 0.0 | 0.0 | 0.0 | 3.7 |
| K28-14 | 2.3 | 3 | 6 | 4.7 | 6.3 | 1.1 | 4.0 | 0.8 | 0.4 | 0.0 | 6.7 | 0.0 | 0.0 | 2.7 |
| K28-18 | 1.7 | 3 | 6 | 3.7 | 5.8 | 0.7 | 2.9 | 1.4 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| K28-21 | 5.0 | 5 | 6 | 2.0 | 7.0 | 3.1 | 1.6 | 1.0 | 1.4 | 36.7 | 0.0 | 0.0 | 0.0 | 4.2 |
| K28-26 | 5.7 | 3 | 7 | 5.5 | 7.5 | 4.0 | 2.7 | 0.5 | 0.1 | 3.3 | 0.0 | 0.0 | 0.0 | 2.0 |
| K30-9 | 5.3 | 1 | 6 | 6.7 | 7.5 | 4.7 | 1.8 | 0.9 | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 0.3 |
| K31-4 | 4.3 | 2 | 7 | 5.8 | 3.6 | 1.1 | 1.8 | 0.1 | 0.5 | 6.7 | 0.0 | 0.0 | 0.0 | 2.3 |
| K34-1 | 6.3 | 2 | 6 | 5.2 | 1.2 | 0.6 | 0.1 | 0.0 | 0.4 | 6.7 | 0.0 | 0.0 | 0.0 | 1.5 |
| K107-4 | 4.7 | 1 | 8 | 5.5 | 2.2 | 1.2 | 0.7 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| K107-8 | 5.5 | 1 | 7 | 5.5 | 3.1 | 2.1 | 0.1 | 0.0 | 1.0 | 40.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| KATAHDIN ** | 5.0 | 3 | 8 | 5.0 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 | 20.0 | 0.0 | 0.0 | 0.0 | 1.8 |
| NY115 | 4.3 | 2 | 8 | 6.3 | 2.7 | 0.6 | 0.4 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| REBA | 5.3 | 5 | 8 | 5.0 | 2.6 | 1.9 | 0.2 | 0.1 | 0.3 | 33.3 | 0.0 | 0.0 | 0.0 | 1.0 |
| SNOWDEN | 4.7 | 1 | 6 | 3.2 | 1.7 | 1.3 | 0.2 | 0.0 | 0.1 | 13.3 | 0.0 | 0.0 | 0.0 | 2.7 |
| SUPERIOR | 2.7 | 5 | 6 | 4.0 | 4.2 | 1.2 | 2.0 | 0.0 | 1.0 | 10.0 | 3.3 | 3.3 | 0.0 | 0.5 |
| Average: | 4.5 | 2 | 7 | 4.9 | 4.4 | 1.9 | 1.2 | 0.7 | 0.7 | 10.0 | 1.1 | 0.2 | 0.0 | 2.0 |
| Maximum: | 7.0 | 5 | 8 | 6.7 | 10.8 | 4.7 | 4.0 | 6.9 | 2.7 | 40.0 | 20.0 | 3.3 | 0.0 | 4.2 |
| Minimum: | 1.7 | 1 | 5 | 2.0 | 1.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 16. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the Michigan State University and University of Wisconsin trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--|----|----|----|---|-------------------|--------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | |
| | | | | | | | | | to 4" | to 4" | | | |
| ATLANTIC | 468 | 415 | 100 | 7 | 53 | 40 | 0 | 0 | 93 | 40 | 11.9 | 4.1 | 91 |
| KATAHDIN | 322 | 280 | 67 | 11 | 62 | 27 | 1 | 0 | 89 | 27 | 9.0 | 3.7 | 68 |
| MSL211-3 | 553 | 441 | 106 | 6 | 43 | 44 | 5 | 2 | 92 | 49 | 12.5 | 4.6 | 66 |
| MSM182-1 | 375 | 298 | 72 | 15 | 65 | 20 | 1 | 0 | 85 | 21 | 11.7 | 3.3 | 69 |
| MSR061-1 | 314 | 248 | 60 | 19 | 62 | 19 | 0 | 0 | 81 | 19 | 11.0 | 3.0 | 85 |
| MSS176-1 ** | 572 | 465 | 112 | 7 | 43 | 43 | 7 | 0 | 93 | 50 | 12.6 | 4.7 | 86 |
| MSS206-2 | 409 | 316 | 76 | 4 | 31 | 49 | 15 | 1 | 95 | 64 | 8.6 | 5.0 | 67 |
| MSS576-5SPL | 578 | 514 | 124 | 8 | 54 | 37 | 2 | 0 | 92 | 39 | 15.5 | 3.9 | 73 |
| MSS582-1SPL ** | 725 | 658 | 159 | 4 | 29 | 53 | 12 | 3 | 93 | 65 | 12.6 | 6.0 | 74 |
| SNOWDEN | 491 | 446 | 107 | 7 | 63 | 30 | 0 | 0 | 93 | 30 | 12.9 | 4.0 | 87 |
| SUPERIOR | 603 | 565 | 136 | 2 | 41 | 52 | 4 | 1 | 97 | 56 | 11.3 | 5.5 | 78 |
| W6483-5 | 402 | 340 | 82 | 5 | 37 | 48 | 9 | 1 | 94 | 57 | 8.4 | 5.0 | 69 |
| Average: | 484 | 415 | 100 | 8 | 48 | 39 | 5 | 1 | 91 | 43 | 11.5 | 4.4 | 76 |
| Maximum: | 725 | 658 | 159 | 19 | 65 | 53 | 15 | 3 | 97 | 65 | 15.5 | 6.0 | 91 |
| Minimum: | 314 | 248 | 60 | 2 | 29 | 19 | 0 | 0 | 81 | 19 | 8.4 | 3.0 | 66 |
| Waller-Duncan | | | | | | | | | | | | | |
| LSD (k=100) | 88 | 88 | | | | | | | | | 1.4 | 0.9 | 5 |
| C.V. (%) | (12) | (14) | | | | | | | | | (8) | (12) | (4) |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 10

Maturity Ratings: Aug 27

Vinekill Date: Aug 28

Harvest Date: Sep 16

Note: all entries are in 3 replications except for those denoted by ** which are in 2 replications.

Statistical analysis was carried out only on those in 3 replications.

Upstate New York Table 17. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the Michigan State University and University of Wisconsin trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bm. Center | Vasc. Disc. | Int. Nec. | |
| ATLANTIC | 6.3 | 1 | 5 | 5.3 | 4.0 | 1.1 | 0.1 | 0.2 | 2.6 | 13.3 | 0.0 | 0.0 | 0.0 | 2.3 |
| KATAHDIN | 5.3 | 2 | 8 | 4.8 | 2.2 | 1.8 | 0.3 | 0.0 | 0.1 | 36.7 | 0.0 | 0.0 | 0.0 | 2.2 |
| MSL211-3 | 6.3 | 5 | 8 | 4.0 | 12.3 | 3.2 | 2.0 | 6.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 |
| MSM182-1 | 7.0 | 2 | 8 | 3.7 | 6.2 | 0.6 | 4.9 | 0.1 | 0.6 | 20.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| MSR061-1 | 5.7 | 1 | 6 | 6.5 | 1.7 | 0.8 | 0.6 | 0.0 | 0.2 | 13.3 | 0.0 | 0.0 | 0.0 | 1.5 |
| MSS176-1 ** | 7.0 | 5 | 8 | 5.3 | 12.2 | 4.4 | 1.2 | 5.0 | 1.7 | 10.0 | 0.0 | 0.0 | 0.0 | 2.3 |
| MSS206-2 | 7.0 | 1 | 7 | 4.2 | 19.6 | 5.7 | 8.5 | 4.6 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| MSS576-5SPL | 5.5 | 1 | 8 | 6.3 | 3.6 | 1.3 | 0.1 | 0.7 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| MSS582-1SPL ** | 6.0 | 3 | 8 | 7.0 | 2.6 | 1.3 | 0.1 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| SNOWDEN | 5.7 | 1 | 5 | 3.7 | 2.3 | 1.1 | 0.8 | 0.3 | 0.1 | 3.3 | 0.0 | 0.0 | 0.0 | 3.2 |
| SUPERIOR | 4.3 | 3 | 5 | 4.3 | 3.1 | 0.7 | 1.9 | 0.1 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| W6483-5 | 6.0 | 3 | 8 | 6.0 | 9.0 | 1.6 | 6.4 | 0.1 | 0.9 | 0.0 | 10.0 | 0.0 | 0.0 | 1.2 |
| Average: | 6.0 | 2 | 7 | 5.1 | 6.6 | 2.0 | 2.2 | 1.6 | 0.8 | 8.1 | 0.8 | 0.0 | 0.0 | 2.3 |
| Maximum: | 7.0 | 5 | 8 | 7.0 | 19.6 | 5.7 | 8.5 | 6.6 | 2.6 | 36.7 | 10.0 | 0.0 | 0.0 | 3.5 |
| Minimum: | 4.3 | 1 | 5 | 3.7 | 1.7 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 18. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the University of Maine early generation trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--------------------------------|----|----|----|----|-------------------|--------|------------|----------|----------------|
| | | Cwt/A | % of Std. | (% of total yield) | | | | | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | |
| | | | | 1 | 2 | 3 | 4 | 5 | to 4" | to 4 " | | | |
| ATLANTIC | 461 | 411 | 100 | 8 | 51 | 40 | 0 | 0 | 92 | 41 | 11.5 | 4.2 | 87 |
| AF4227-2 ** | 463 | 400 | 97 | 8 | 48 | 41 | 3 | 0 | 92 | 45 | 11.1 | 4.3 | 71 |
| AF4421-4 ** | 329 | 269 | 66 | 16 | 60 | 23 | 0 | 0 | 84 | 23 | 10.1 | 3.4 | 70 |
| AF4463-8 | 561 | 494 | 120 | 5 | 44 | 46 | 4 | 0 | 95 | 50 | 12.6 | 4.6 | 73 |
| AF4552-5 | 367 | 325 | 79 | 8 | 49 | 42 | 1 | 0 | 92 | 43 | 9.2 | 4.2 | 77 |
| AF4573-2 | 440 | 366 | 89 | 11 | 55 | 34 | 0 | 0 | 89 | 34 | 12.2 | 3.8 | 93 |
| AF4614-2 | 445 | 414 | 101 | 3 | 24 | 55 | 17 | 1 | 96 | 72 | 7.9 | 5.9 | 73 |
| AF4640-1 | 490 | 426 | 104 | 7 | 44 | 42 | 5 | 2 | 92 | 47 | 11.5 | 4.5 | 74 |
| AF4730-2 * | 443 | 408 | 99 | 5 | 41 | 47 | 7 | 0 | 95 | 54 | 10.0 | 4.6 | 74 |
| AF4736-10 * | 260 | 225 | 55 | 12 | 32 | 56 | 0 | 0 | 88 | 56 | 5.8 | 4.7 | 77 |
| AF4838-1 * | 438 | 392 | 95 | 6 | 44 | 42 | 7 | 2 | 93 | 49 | 9.5 | 4.8 | 70 |
| AF4852-4 * | 542 | 474 | 115 | 8 | 55 | 36 | 0 | 2 | 90 | 36 | 13.3 | 4.3 | 69 |
| AF4914-4 * | 580 | 511 | 124 | 10 | 50 | 37 | 4 | 0 | 90 | 41 | 15.6 | 3.9 | 67 |
| AF5031-7 * | 387 | 338 | 82 | 8 | 60 | 30 | 1 | 0 | 92 | 32 | 10.0 | 4.0 | 79 |
| AF5033-11 * | 321 | 298 | 72 | 7 | 58 | 35 | 0 | 0 | 93 | 35 | 9.2 | 3.6 | 75 |
| AF5040-4 * | 483 | 417 | 101 | 1 | 16 | 51 | 22 | 10 | 89 | 74 | 6.8 | 7.4 | 65 |
| AF5042-8 * | 397 | 349 | 85 | 5 | 45 | 45 | 5 | 0 | 95 | 50 | 8.3 | 5.0 | 73 |
| AF5044-19 * | 509 | 481 | 117 | 3 | 50 | 45 | 2 | 0 | 97 | 47 | 10.8 | 4.9 | 80 |
| AF5068-3 * | 333 | 267 | 65 | 7 | 55 | 32 | 4 | 3 | 91 | 36 | 7.6 | 4.5 | 72 |
| AF5138-2 * | 338 | 298 | 73 | 9 | 47 | 38 | 5 | 0 | 91 | 43 | 8.5 | 4.1 | 85 |

(continued)

Upstate New York Table 18. -(cont'd)- Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight and specific gravity for the University of Maine early generation trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--------------------------------|----|----|----|----|-------------------|--------|------------|----------|----------------|
| | | Cwt/A | % of Std. | (% of total yield) | | | | | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | |
| | | | | 1 | 2 | 3 | 4 | 5 | to 4" | to 4 " | | | |
| AF5140-1 * | 480 | 458 | 111 | 3 | 38 | 54 | 5 | 0 | 97 | 59 | 9.6 | 5.2 | 75 |
| AF5142-3 * | 391 | 351 | 85 | 7 | 56 | 37 | 0 | 0 | 93 | 37 | 9.4 | 4.3 | 81 |
| AF5152-3 * | 464 | 445 | 108 | 3 | 45 | 52 | 0 | 0 | 97 | 52 | 9.6 | 5.0 | 82 |
| AF5153-11 * | 433 | 362 | 88 | 5 | 34 | 41 | 12 | 8 | 87 | 53 | 8.4 | 5.4 | 87 |
| AF5215-2 * | 560 | 460 | 112 | 17 | 76 | 7 | 0 | 0 | 83 | 7 | 19.3 | 3.0 | 82 |
| AF5243-2 * | 322 | 270 | 66 | 11 | 56 | 33 | 0 | 0 | 89 | 33 | 8.2 | 4.1 | 68 |
| AF5280-5 * | 362 | 297 | 72 | 15 | 68 | 17 | 0 | 0 | 85 | 17 | 11.5 | 3.3 | 63 |
| AF5281-4 * | 498 | 434 | 106 | 10 | 67 | 23 | 1 | 0 | 90 | 24 | 14.0 | 3.7 | 99 |
| AF5286-2 * | 367 | 299 | 73 | 11 | 51 | 34 | 4 | 0 | 89 | 39 | 9.5 | 4.0 | 80 |
| AF5289-1 * | 289 | 240 | 58 | 2 | 29 | 55 | 14 | 0 | 98 | 69 | 8.2 | 5.5 | 75 |
| AF5292-4 * | 456 | 414 | 101 | 5 | 56 | 36 | 2 | 0 | 95 | 38 | 10.8 | 4.4 | 81 |
| SNOWDEN | 414 | 377 | 92 | 6 | 54 | 39 | 1 | 0 | 94 | 40 | 10.4 | 4.1 | 86 |
| SUPERIOR | 522 | 500 | 122 | 2 | 44 | 51 | 3 | 0 | 98 | 54 | 10.2 | 5.3 | 78 |
| Average: | 429 | 378 | 92 | 7 | 47 | 38 | 4 | 1 | 92 | 43 | 10.3 | 4.5 | 77 |
| Maximum: | 580 | 511 | 124 | 17 | 76 | 56 | 22 | 10 | 98 | 74 | 19.3 | 7.4 | 99 |
| Minimum: | 260 | 225 | 55 | 1 | 2 | 3 | 0 | 0 | 83 | 7 | 5.8 | 3.0 | 63 |
| Waller-Duncan | | | | | | | | | | | | | |
| LSD (k=100) | 80 | 84 | | | | | | | | | 2 | 0.4 | 4 |
| C.V. (%) | (10) | (11) | | | | | | | | | (9) | (5) | (3) |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 10

Maturity Ratings: Aug 27

Vinekill Date: Aug 28

Harvest Date: Sep 9

Note: all entries are in 3 replications except for those denoted by ** which are in 2 replications or denoted by * which are in 1 replication.

Statistical analysis was carried out only on those in 3 reps.

Upstate New York Table 19. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the University of Maine early generation trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bn. Center | Vasc. Disc. | Int. Nec. | |
| ATLANTIC | 5.0 | 1 | 5 | 4.5 | 3.1 | 0.6 | 0.7 | 0.9 | 0.8 | 10.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| AF4227-2 ** | 7.0 | 3 | 8 | 5.5 | 6.0 | 2.9 | 0.8 | 1.1 | 1.2 | 0.0 | 0.0 | 0.0 | 10.0 | 2.5 |
| AF4421-4 ** | 4.5 | 2 | 6 | 5.0 | 2.0 | 0.0 | 0.0 | 0.0 | 2.0 | 15.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| AF4463-8 | 7.0 | 2 | 6 | 5.0 | 6.5 | 3.2 | 0.0 | 0.0 | 3.3 | 3.3 | 0.0 | 0.0 | 10.0 | 3.5 |
| AF4552-5 | 3.7 | 1 | 6 | 5.0 | 3.5 | 1.2 | 0.0 | 0.8 | 1.5 | 0.0 | 0.0 | 6.7 | 0.0 | 2.8 |
| AF4573-2 | 6.0 | 2 | 7 | 4.0 | 5.9 | 0.7 | 0.5 | 1.1 | 3.6 | 10.0 | 0.0 | 0.0 | 0.0 | 2.8 |
| AF4614-2 | 6.3 | 2 | 8 | 6.2 | 2.5 | 0.7 | 1.1 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 |
| AF4640-1 | 6.3 | 1 | 8 | 6.5 | 4.9 | 1.5 | 1.3 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| AF4730-2 * | 5.0 | 3 | 8 | 6.5 | 2.5 | 0.6 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| AF4736-10 * | 3.0 | 1 | 7 | 5.0 | 1.4 | 0.5 | 0.0 | 0.0 | 0.8 | 20.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| AF4838-1 * | 7.0 | 2 | 8 | 5.0 | 3.2 | 0.6 | 0.0 | 2.7 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 2.0 |
| AF4852-4 * | 4.0 | 2 | 7 | 5.0 | 2.9 | 1.0 | 0.7 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| AF4914-4 * | 7.0 | 1 | 8 | 6.5 | 2.1 | 1.3 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5031-7 * | 2.0 | 3 | 8 | 7.0 | 4.6 | 2.5 | 0.0 | 0.0 | 2.1 | 40.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| AF5033-11 * | 6.0 | 1 | 7 | 5.0 | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| AF5040-4 * | 7.0 | 3 | 8 | 7.0 | 3.0 | 1.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| AF5042-8 * | 7.0 | 3 | 8 | 5.0 | 6.9 | 1.3 | 0.7 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| AF5044-19 * | 3.0 | 3 | 6 | 4.5 | 2.8 | 0.5 | 0.4 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| AF5068-3 * | 4.0 | 3 | 8 | 6.0 | 10.5 | 1.4 | 2.7 | 5.2 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| AF5138-2 * | 5.0 | 2 | 6 | 4.0 | 2.4 | 1.6 | 0.0 | 0.0 | 0.8 | 10.0 | 0.0 | 0.0 | 0.0 | 2.0 |

(continued)

Upstate New York Table 19. -(cont'd)- Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the University of Maine early generation trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|------|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bn. Center | Vasc. Disc. | Int. Nec. | |
| AF5140-1 * | 5.0 | 12 | 7 | 6.5 | 1.2 | 0.0 | 0.7 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5142-3 * | 4.0 | 2 | 6 | 5.5 | 3.5 | 0.3 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| AF5152-3 * | 7.0 | 2 | 6 | 5.0 | 0.9 | 0.5 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| AF5153-11 * | 6.0 | 3 | 8 | 5.0 | 3.5 | 0.0 | 0.9 | 1.8 | 0.8 | 10.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| AF5215-2 * | 5.0 | 4 | 8 | 6.0 | 1.1 | 0.7 | 0.4 | 0.0 | 0.0 | 30.0 | 10.0 | 0.0 | 0.0 | 2.5 |
| AF5243-2 * | 5.0 | 3 | 6 | 6.5 | 5.1 | 3.4 | 0.0 | 0.0 | 1.7 | 10.0 | 0.0 | 0.0 | 0.0 | 5.0 |
| AF5280-5 * | 5.0 | 3 | 8 | 7.0 | 2.8 | 0.7 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| AF5281-4 * | 5.0 | 2 | 8 | 6.0 | 3.2 | 2.4 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| AF5286-2 * | 7.0 | 3 | 8 | 4.0 | 8.1 | 2.3 | 2.1 | 3.2 | 0.5 | 20.0 | 0.0 | 0.0 | 0.0 | 4.0 |
| AF5289-1 * | 5.0 | 3 | 8 | 6.0 | 14.6 | 0.6 | 1.1 | 0.0 | 12.8 | 0.0 | 10.0 | 0.0 | 0.0 | 1.0 |
| AF5292-4 * | 6.0 | 3 | 8 | 7.5 | 3.7 | 0.2 | 0.0 | 0.0 | 3.5 | 10.0 | 80.0 | 0.0 | 0.0 | 1.0 |
| SNOWDEN | 6.7 | 1 | 6 | 4.0 | 2.6 | 2.1 | 0.1 | 0.0 | 0.3 | 16.7 | 0.0 | 0.0 | 0.0 | 3.3 |
| SUPERIOR | 4.0 | 4 | 5 | 5.2 | 2.4 | 0.3 | 1.4 | 0.1 | 0.5 | 0.0 | 0.0 | 6.7 | 0.0 | 0.3 |
| Average: | 5.3 | 3 | 7 | 5.5 | 3.9 | 1.1 | 0.5 | 0.7 | 1.6 | 6.2 | 3.3 | 0.4 | 0.6 | 2.3 |
| Maximum: | 7.0 | 12 | 8 | 7.5 | 14.6 | 3.4 | 2.7 | 5.2 | 12.8 | 40.0 | 80.0 | 6.7 | 10.0 | 5.0 |
| Minimum: | 2.0 | 1 | 5 | 4.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 20. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the University of Maine red observational trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--|----|----|----|---|-------------------|--------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" | 2-1/2" | #/ft. | wt.(oz.) | |
| | | | | | | | | | to 4" | to 4 " | | | |
| AAF07152-4 | 463 | 373 | 180 | 2 | 33 | 46 | 15 | 3 | 94 | 61 | 7.5 | 6.4 | 74 |
| AAF07254-1 | 317 | 277 | 133 | 6 | 73 | 21 | 0 | 0 | 94 | 21 | 7.8 | 4.2 | 72 |
| AF5375-3 | 254 | 184 | 89 | 9 | 75 | 17 | 0 | 0 | 91 | 17 | 6.7 | 3.9 | 81 |
| AF5377-1 | 138 | 96 | 46 | 29 | 55 | 16 | 0 | 0 | 71 | 16 | 5.3 | 2.7 | 55 |
| AF5378-1 | 96 | 64 | 31 | 28 | 72 | 0 | 0 | 0 | 72 | 0 | 3.7 | 2.7 | na |
| AF5380-2 | 219 | 179 | 86 | 3 | 24 | 45 | 29 | 0 | 97 | 73 | 4.5 | 5.0 | 70 |
| AF5412-1 | 157 | 136 | 65 | 4 | 32 | 40 | 15 | 9 | 87 | 55 | 2.8 | 5.9 | 73 |
| AF5414-1 | 327 | 304 | 146 | 4 | 45 | 50 | 0 | 0 | 96 | 50 | 6.5 | 5.3 | 79 |
| AF5441-2 | 222 | 190 | 91 | 14 | 86 | 0 | 0 | 0 | 86 | 0 | 7.6 | 3.0 | 71 |
| AF5441-3 | 161 | 140 | 67 | 13 | 75 | 12 | 0 | 0 | 87 | 12 | 6.0 | 2.8 | 59 |
| CHIEFTAIN ** | 241 | 208 | 100 | 8 | 53 | 32 | 4 | 3 | 89 | 36 | 6.2 | 4.2 | 66 |
| DARK RED NORLAND ** | 101 | 85 | 41 | 16 | 69 | 15 | 0 | 0 | 84 | 15 | 3.2 | 3.2 | 59 |
| NDAF092239CB-2 | 73 | 54 | 26 | 21 | 70 | 9 | 0 | 0 | 79 | 9 | 2.6 | 2.9 | na |
| NDAF092241C-3 | 316 | 283 | 136 | 11 | 72 | 17 | 0 | 0 | 89 | 17 | 8.5 | 3.9 | 87 |
| NDAF092274b-2 | 89 | 69 | 33 | 17 | 67 | 16 | 0 | 0 | 83 | 16 | 2.9 | 3.2 | na |
| NDAF092283B-2 | 203 | 200 | 96 | 1 | 34 | 55 | 10 | 0 | 99 | 65 | 3.6 | 5.9 | 73 |
| NDAF092309C-1 | 179 | 167 | 80 | 2 | 68 | 30 | 0 | 0 | 98 | 30 | 4.2 | 4.4 | 75 |
| NDAF102545B-2 | 173 | 118 | 57 | 25 | 69 | 7 | 0 | 0 | 75 | 7 | 5.7 | 3.1 | 79 |
| NDAF102546B-2 | 268 | 228 | 110 | 15 | 79 | 7 | 0 | 0 | 85 | 7 | 8.6 | 3.3 | 69 |
| NDAF102566B-6 | 465 | 429 | 206 | 8 | 59 | 31 | 3 | 0 | 92 | 34 | 11.6 | 4.2 | 62 |

(continued)

Upstate New York Table 20. -(continued)- Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight and specific gravity for the University of Maine red observational trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--|----|----|----|---|-------------------|-----------------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" to 4" | 2-1/2" to 4" | #/ft. | wt.(oz.) | |
| NDAF102567B-2 | 89 | 37 | 18 | 55 | 45 | 0 | 0 | 0 | 45 | 0 | 4.4 | 2.1 | na |
| NDAF102569C-1 | 178 | 144 | 69 | 16 | 59 | 18 | 6 | 0 | 84 | 24 | 5.7 | 3.2 | 60 |
| NDAF102569C-2 | 179 | 128 | 61 | 27 | 69 | 4 | 0 | 0 | 73 | 4 | 7.4 | 2.5 | 71 |
| NDAF102573-1 | 106 | 74 | 35 | 24 | 76 | 0 | 0 | 0 | 76 | 0 | 4.2 | 2.6 | na |
| NDAF102573-2 | 307 | 264 | 127 | 6 | 65 | 29 | 0 | 0 | 94 | 29 | 8.4 | 3.8 | 82 |
| NDAF102573-3 | 157 | 110 | 53 | 10 | 82 | 8 | 0 | 0 | 90 | 8 | 5.4 | 3.0 | 56 |
| NDAF102574-1 | 77 | 55 | 27 | 28 | 72 | 0 | 0 | 0 | 72 | 0 | 3.5 | 2.3 | na |
| NDAF102574-3 | 181 | 128 | 62 | 9 | 58 | 33 | 0 | 0 | 91 | 33 | 5.3 | 3.5 | 62 |
| NDAF102575B-1 | 290 | 261 | 125 | 6 | 66 | 27 | 0 | 0 | 94 | 27 | 8.9 | 3.4 | 64 |
| NDAF102575B-3 | 225 | 144 | 69 | 20 | 64 | 16 | 0 | 0 | 80 | 16 | 6.9 | 3.4 | 68 |
| NDAF102575B-5 | 280 | 238 | 114 | 8 | 75 | 17 | 0 | 0 | 92 | 17 | 7.6 | 3.8 | 80 |
| NDAF102575B-6 | 208 | 169 | 81 | 14 | 64 | 16 | 6 | 0 | 86 | 22 | 6.3 | 3.4 | 64 |
| NDAF102575B-6 | 282 | 231 | 111 | 11 | 87 | 2 | 0 | 0 | 89 | 2 | 9.1 | 3.2 | 68 |
| NDAF102576B-1 | 214 | 162 | 78 | 18 | 54 | 28 | 0 | 0 | 82 | 28 | 6.7 | 3.3 | 64 |
| NDAF102576B-4 | 262 | 222 | 107 | 9 | 57 | 34 | 0 | 0 | 91 | 34 | 6.8 | 4.0 | 67 |
| NDAF102579C-2 | 123 | 89 | 43 | 18 | 77 | 4 | 0 | 0 | 82 | 4 | 5.0 | 2.6 | 59 |
| WAF10104R-4 | 311 | 272 | 131 | 7 | 73 | 20 | 0 | 0 | 93 | 20 | 7.6 | 4.2 | 72 |
| WAF10114R-3 | 218 | 174 | 84 | 9 | 70 | 15 | 5 | 0 | 91 | 20 | 6.1 | 3.7 | 73 |
| WAF10209R-6 | 256 | 216 | 104 | 15 | 59 | 27 | 0 | 0 | 85 | 27 | 6.8 | 3.9 | 69 |
| WAF10209R-8 | 305 | 265 | 127 | 5 | 46 | 42 | 7 | 0 | 95 | 49 | 6.8 | 4.7 | 72 |
| Average: | 218 | 179 | 86 | 14 | 62 | 20 | 3 | 0 | 86 | 23 | 6.1 | 3.7 | 69 |
| Maximum: | 465 | 429 | 206 | 55 | 87 | 55 | 29 | 9 | 99 | 73 | 11.6 | 6.4 | 87 |
| Minimum: | 73 | 37 | 18 | 1 | 2 | 0 | 0 | 0 | 45 | 0 | 2.6 | 2.1 | 55 |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 10

Maturity Ratings: na

Vinekill Date: Aug 28

Harvest Date: Sep 9

Note: all entries are in 1 replication except the two standards denoted by ** which are in 2 replications.

Upstate New York Table 21. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the University of Maine red observational trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| AAF07152-4 | na | 5 | 8 | 4.5 | 13.6 | 0.8 | 12.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| AAF07254-1 | na | 3 | 8 | 4.0 | 6.9 | 0.9 | 4.9 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| AF5375-3 | na | 5 | 8 | 6.0 | 18.9 | 0.0 | 5.6 | 12.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5377-1 | na | 3 | 8 | 6.0 | 1.5 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5378-1 | na | 2 | 8 | 4.0 | 5.2 | 0.0 | 1.5 | 3.7 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 3.0 |
| AF5380-2 | na | 5 | 8 | 4.0 | 15.5 | 0.0 | 1.9 | 10.4 | 3.2 | 20.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| AF5412-1 | na | 6 | 8 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| AF5414-1 | na | 5 | 8 | 5.0 | 2.6 | 0.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 30.0 | 2.0 |
| AF5441-2 | na | 2 | 8 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| AF5441-3 | na | 1 | 8 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 10.0 | 0.0 | 1.0 |
| CHIEFTAIN ** | na | 3 | 8 | 4.5 | 2.8 | 0.0 | 1.1 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 |
| DARK RED NORLAND ** | na | 1 | 8 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| NDAF092239CB-2 | na | 3 | 8 | 7.0 | 4.9 | 0.0 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| NDAF092241C-3 | na | 1 | 8 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| NDAF092274b-2 | na | 1 | 8 | 4.0 | 5.6 | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| NDAF092283B-2 | na | 3 | 8 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| NDAF092309C-1 | na | 2 | 8 | 6.5 | 4.0 | 0.0 | 0.0 | 2.4 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| NDAF102545B-2 | na | 5 | 7 | 4.0 | 7.0 | 0.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| NDAF102546B-2 | na | 2 | 8 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| NDAF102566B-6 | na | 2 | 8 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 3.0 |

(continued)

Upstate New York Table 21. -(continued)- Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the University of Maine red observational trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| NDAF102567B-2 | na | 1 | 8 | 5.0 | 3.2 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| NDAF102569C-1 | na | 3 | 8 | 6.5 | 2.8 | 0.0 | 1.2 | 1.6 | 0.0 | 0.0 | 0.0 | 20.0 | 0.0 | 2.0 |
| NDAF102569C-2 | na | 3 | 8 | 4.0 | 1.6 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 10.0 | 3.0 |
| NDAF102573-1 | na | 1 | 8 | 4.0 | 6.0 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| NDAF102573-2 | na | 1 | 6 | 4.5 | 7.6 | 0.0 | 3.0 | 1.8 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| NDAF102573-3 | na | 1 | 8 | 5.0 | 19.8 | 0.0 | 12.2 | 4.1 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| NDAF102574-1 | na | 1 | 8 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| NDAF102574-3 | na | 2 | 8 | 4.5 | 20.7 | 7.8 | 0.0 | 5.9 | 7.0 | 60.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| NDAF102575B-1 | na | 1 | 8 | 6.0 | 3.7 | 1.2 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 1.5 |
| NDAF102575B-3 | na | 5 | 8 | 4.5 | 16.4 | 0.9 | 10.7 | 3.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| NDAF102575B-5 | na | 1 | 6 | 4.0 | 6.6 | 1.5 | 1.8 | 0.0 | 3.3 | 0.0 | 0.0 | 10.0 | 0.0 | 2.0 |
| NDAF102575B-6 | na | 2 | 8 | 4.5 | 4.8 | 2.0 | 1.0 | 0.0 | 1.7 | 10.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| NDAF102575B-6 | na | 1 | 8 | 5.0 | 7.0 | 0.0 | 1.0 | 3.8 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| NDAF102576B-1 | na | 1 | 8 | 5.0 | 6.0 | 0.0 | 0.0 | 4.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| NDAF102576B-4 | na | 2 | 8 | 6.0 | 6.2 | 1.6 | 1.4 | 1.4 | 1.9 | 20.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| NDAF102579C-2 | na | 1 | 8 | 6.0 | 9.2 | 0.0 | 2.9 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| WAF10104R-4 | na | 2 | 8 | 5.0 | 5.5 | 2.3 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| WAF10114R-3 | na | 3 | 8 | 5.0 | 10.7 | 1.0 | 0.0 | 9.7 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| WAF10209R-6 | na | 1 | 8 | 6.5 | 1.1 | 0.0 | 1.1 | 0.0 | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| WAF10209R-8 | na | 2 | 8 | 5.0 | 7.9 | 0.0 | 4.6 | 2.3 | 0.9 | 10.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| Average: | na | 2 | 8 | 5.1 | 5.9 | 0.5 | 2.1 | 2.1 | 1.2 | 4.8 | 0.0 | 1.8 | 1.0 | 2.2 |
| Maximum: | na | 6 | 8 | 7.0 | 20.7 | 7.8 | 12.9 | 12.3 | 7.0 | 60.0 | 0.0 | 20.0 | 30.0 | 3.5 |
| Minimum: | na | 1 | 6 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 22. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the USDA "B" clone replicated yield trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. | |
|---------------------------------|-------------------------|------------|--------------|--|----|----|----|---|-------------------|-----------------|------------|----------|----------------|--|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" to 4" | 2-1/2" to 4" | #/ft. | wt.(oz.) | | |
| | | | | | | | | | | | | | | |
| ATLANTIC | 367 | 298 | 100 | 9 | 48 | 41 | 2 | 0 | 91 | 43 | 9.4 | 4.1 | 85 | |
| B2738-3 ** | 483 | 450 | 151 | 4 | 32 | 56 | 8 | 1 | 95 | 64 | 9.4 | 5.3 | 68 | |
| B2827-12 ** | 295 | 224 | 75 | 17 | 55 | 28 | 0 | 0 | 83 | 28 | 8.8 | 3.5 | 76 | |
| B2827-13 | 471 | 358 | 120 | 10 | 49 | 36 | 5 | 0 | 89 | 41 | 11.5 | 4.3 | 72 | |
| B2832-12 | 524 | 483 | 162 | 5 | 42 | 48 | 5 | 0 | 95 | 53 | 11.0 | 4.9 | 86 | |
| B2834-8 | 348 | 304 | 102 | 9 | 44 | 44 | 3 | 0 | 91 | 47 | 8.6 | 4.2 | 80 | |
| B2869-17 | 390 | 333 | 112 | 9 | 41 | 45 | 3 | 1 | 90 | 49 | 9.3 | 4.4 | 72 | |
| B2869-28 | 395 | 348 | 117 | 9 | 49 | 41 | 1 | 0 | 91 | 42 | 10.0 | 4.1 | 71 | |
| B2876-7 ** | 314 | 273 | 92 | 6 | 41 | 53 | 0 | 0 | 94 | 53 | 6.6 | 4.9 | 71 | |
| B2882-4 ** | 482 | 413 | 139 | 3 | 27 | 55 | 13 | 1 | 96 | 69 | 8.6 | 5.9 | 70 | |
| B2883-11 ** | 297 | 234 | 79 | 16 | 65 | 19 | 0 | 0 | 84 | 19 | 9.4 | 3.3 | 78 | |
| B2883-12 ** | 385 | 307 | 103 | 15 | 63 | 23 | 0 | 0 | 85 | 23 | 11.3 | 3.6 | 79 | |
| B2890-11 ** | 350 | 302 | 101 | 5 | 43 | 51 | 1 | 0 | 95 | 52 | 7.7 | 4.7 | 67 | |
| B2893-2 | 459 | 355 | 119 | 16 | 58 | 26 | 0 | 0 | 84 | 26 | 14.3 | 3.3 | 79 | |
| B2908-3 ** | 391 | 285 | 96 | 12 | 56 | 30 | 2 | 0 | 88 | 32 | 10.4 | 3.9 | 76 | |
| B2947-5 ** | 391 | 354 | 119 | 5 | 44 | 47 | 2 | 2 | 93 | 49 | 8.6 | 4.7 | 77 | |
| B2947-7 ** | 332 | 286 | 96 | 10 | 50 | 38 | 2 | 0 | 90 | 40 | 8.4 | 4.1 | 87 | |
| B2947-8 ** | 408 | 322 | 108 | 16 | 54 | 29 | 0 | 0 | 84 | 30 | 12.5 | 3.4 | 73 | |
| B2948-1 ** | 578 | 492 | 165 | 3 | 34 | 59 | 3 | 0 | 97 | 62 | 10.8 | 5.6 | 83 | |
| B2950-2 ** | 417 | 364 | 122 | 8 | 52 | 37 | 3 | 0 | 92 | 40 | 11.2 | 4.0 | 79 | |
| B2950-3 ** | 455 | 382 | 128 | 13 | 61 | 26 | 0 | 0 | 87 | 26 | 12.9 | 3.7 | 79 | |
| BNC233-3 | 415 | 342 | 115 | 11 | 52 | 36 | 1 | 0 | 89 | 37 | 11.2 | 3.8 | 74 | |
| BNC266-6 ** | 481 | 391 | 131 | 10 | 51 | 38 | 1 | 0 | 90 | 39 | 12.6 | 4.0 | 83 | |
| SNOWDEN | 434 | 365 | 123 | 12 | 54 | 34 | 0 | 0 | 88 | 34 | 12.4 | 3.6 | 89 | |
| SUPERIOR ** | 474 | 431 | 145 | 3 | 31 | 54 | 11 | 1 | 96 | 65 | 8.3 | 5.9 | 74 | |
| Average: | 414 | 348 | 117 | 10 | 48 | 40 | 3 | 0 | 90 | 42 | 10.2 | 4.3 | 77 | |
| Maximum: | 578 | 492 | 165 | 17 | 65 | 59 | 13 | 2 | 97 | 69 | 14.3 | 5.9 | 89 | |
| Minimum: | 295 | 224 | 75 | 3 | 27 | 19 | 0 | 0 | 83 | 19 | 6.6 | 3.3 | 67 | |
| Waller-Duncan | | | | | | | | | | | | | | |
| LSD (k=100) | 80 | 84 | | | | | | | | | 3 | 0.6 | 2 | |
| C.V. (%) | (10) | (13) | | | | | | | | | (14) | (8) | (2) | |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 7

Maturity Ratings: Aug 12

Vinekill Date: Aug 15

Harvest Date: Sep 3

Note: all entries are in 3 replications except for those denoted by ** which are in 2 replications.

Upstate New York Table 23. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the the USDA "B" clone replicated yield trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bn. Center | Vasc. Disc. | Int. Nec. | |
| ATLANTIC | 6.7 | 2 | 5 | 4.0 | 9.3 | 2.3 | 1.8 | 1.6 | 3.6 | 13.3 | 0.0 | 0.0 | 0.0 | 1.7 |
| B2738-3 ** | 7.0 | 2 | 6 | 6.0 | 2.0 | 0.0 | 0.0 | 0.3 | 1.7 | 5.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B2827-12 ** | 6.5 | 3 | 8 | 5.5 | 7.6 | 2.2 | 0.3 | 1.3 | 3.8 | 10.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B2827-13 | 7.3 | 3 | 8 | 6.0 | 13.6 | 4.7 | 0.2 | 2.1 | 6.6 | 16.7 | 0.0 | 0.0 | 0.0 | 1.7 |
| B2832-12 | 7.0 | 1 | 6 | 5.7 | 3.0 | 1.6 | 0.2 | 0.0 | 1.2 | 6.7 | 0.0 | 3.3 | 0.0 | 0.0 |
| B2834-8 | 6.7 | 2 | 6 | 6.0 | 3.7 | 1.5 | 0.4 | 1.7 | 0.1 | 3.3 | 3.3 | 0.0 | 0.0 | 2.5 |
| B2869-17 | 7.0 | 2 | 8 | 5.3 | 5.1 | 1.8 | 0.8 | 0.5 | 2.0 | 33.3 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2869-28 | 7.3 | 1 | 8 | 7.3 | 3.3 | 0.9 | 1.0 | 0.5 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 |
| B2876-7 ** | 6.5 | 3 | 8 | 7.0 | 7.1 | 0.9 | 0.0 | 3.8 | 2.4 | 5.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2882-4 ** | 8.0 | 2 | 8 | 4.5 | 10.0 | 5.0 | 0.0 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| B2883-11 ** | 7.5 | 1 | 7 | 6.0 | 5.6 | 2.8 | 0.9 | 0.1 | 1.8 | 5.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| B2883-12 ** | 8.0 | 3 | 7 | 5.5 | 5.6 | 1.1 | 1.1 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 |
| B2890-11 ** | 4.5 | 3 | 8 | 7.0 | 8.8 | 1.5 | 0.3 | 5.7 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2893-2 | 7.3 | 2 | 8 | 6.7 | 6.4 | 3.7 | 1.9 | 0.5 | 0.4 | 0.0 | 6.7 | 0.0 | 0.0 | 2.3 |
| B2908-3 ** | 7.0 | 4 | 7 | 5.3 | 14.8 | 4.8 | 0.0 | 6.8 | 3.1 | 10.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| B2947-5 ** | 7.5 | 1 | 5 | 5.3 | 2.3 | 1.7 | 0.0 | 0.0 | 0.6 | 25.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B2947-7 ** | 8.0 | 4 | 6 | 4.5 | 4.4 | 3.3 | 0.4 | 0.5 | 0.1 | 25.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2947-8 ** | 7.0 | 1 | 7 | 5.8 | 4.9 | 2.2 | 0.0 | 1.0 | 1.8 | 0.0 | 10.0 | 0.0 | 0.0 | 2.0 |
| B2948-1 ** | 7.5 | 3 | 6 | 4.5 | 11.5 | 5.6 | 2.7 | 2.3 | 0.9 | 15.0 | 0.0 | 0.0 | 0.0 | 2.8 |
| B2950-2 ** | 8.5 | 3 | 7 | 5.5 | 4.6 | 1.4 | 0.7 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| B2950-3 ** | 8.0 | 2 | 6 | 5.5 | 2.9 | 0.9 | 0.9 | 0.9 | 0.3 | 0.0 | 5.0 | 0.0 | 0.0 | 2.5 |
| BNC233-3 | 7.0 | 2 | 8 | 6.6 | 7.0 | 1.1 | 0.5 | 0.7 | 4.7 | 10.0 | 0.0 | 0.0 | 0.0 | 1.3 |
| BNC266-6 ** | 8.0 | 3 | 8 | 3.5 | 9.0 | 4.9 | 2.0 | 0.7 | 1.5 | 15.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| SNOWDEN | 8.0 | 1 | 5 | 3.0 | 4.2 | 3.2 | 0.0 | 0.1 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 |
| SUPERIOR ** | 6.5 | 4 | 5 | 3.5 | 5.2 | 1.4 | 1.0 | 1.2 | 1.5 | 5.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Average: | 7.2 | 2 | 7 | 5.4 | 6.5 | 2.4 | 0.7 | 1.4 | 1.9 | 8.1 | 1.0 | 0.1 | 0.0 | 1.7 |
| Maximum: | 8.5 | 4 | 8 | 7.3 | 14.8 | 5.6 | 2.7 | 6.8 | 6.6 | 33.3 | 10.0 | 3.3 | 0.0 | 3.0 |
| Minimum: | 4.5 | 1 | 5 | 3.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 24. Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, and specific gravity for the USDA "B" clone observational trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--|----|----|----|----|-------------------|-----------------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" to 4" | 2-1/2" to 4" | #/ft. | wt.(oz.) | |
| | | | | | | | | | | | | | |
| ATLANTIC ** | 427 | 346 | 100 | 3 | 43 | 49 | 4 | 2 | 96 | 52 | 8.4 | 5.3 | 91 |
| KATAHDIN ** | 396 | 305 | 88 | 3 | 20 | 50 | 18 | 8 | 89 | 69 | 5.9 | 7.0 | 74 |
| KENNEBEC | 501 | 234 | 68 | 1 | 19 | 35 | 30 | 15 | 83 | 65 | 6.5 | 8.0 | 73 |
| SNOWDEN ** | 401 | 351 | 101 | 4 | 51 | 42 | 3 | 0 | 96 | 45 | 8.8 | 4.7 | 87 |
| SUPERIOR | 312 | 269 | 78 | 3 | 30 | 67 | 0 | 0 | 97 | 67 | 6.0 | 5.4 | 73 |
| B2728-2 | 287 | 271 | 78 | 4 | 39 | 58 | 0 | 0 | 96 | 58 | 5.2 | 5.8 | 74 |
| B2817-16 | 492 | 417 | 121 | 6 | 49 | 45 | 0 | 0 | 94 | 45 | 10.8 | 4.8 | 80 |
| B2827-7 | 393 | 167 | 48 | 3 | 18 | 39 | 18 | 24 | 74 | 56 | 5.4 | 7.5 | 65 |
| B2930-5 | 552 | 482 | 139 | 6 | 64 | 26 | 4 | 0 | 94 | 30 | 14.3 | 4.0 | 79 |
| B2951-7 | 334 | 272 | 79 | 6 | 60 | 30 | 3 | 0 | 94 | 33 | 8.6 | 4.1 | 89 |
| B2951-8 | 457 | 329 | 95 | 2 | 40 | 36 | 15 | 6 | 91 | 51 | 8.2 | 5.8 | 79 |
| B2952-6 | 358 | 288 | 83 | 6 | 61 | 30 | 3 | 0 | 94 | 33 | 8.9 | 4.2 | 73 |
| B2952-7 | 286 | 179 | 52 | 29 | 68 | 2 | 0 | 0 | 71 | 2 | 10.9 | 2.7 | 66 |
| B2954-11 | 256 | 216 | 62 | 13 | 53 | 33 | 0 | 0 | 87 | 33 | 6.4 | 4.2 | 75 |
| B2954-20 | 349 | 265 | 77 | 10 | 68 | 22 | 0 | 0 | 90 | 22 | 9.4 | 3.9 | 79 |
| B2981-2 | 230 | 174 | 50 | 9 | 66 | 25 | 0 | 0 | 91 | 25 | 6.5 | 3.7 | 72 |
| B2981-5 | 249 | 169 | 49 | 25 | 67 | 8 | 0 | 0 | 75 | 8 | 8.1 | 3.2 | 76 |
| B2981-7 | 446 | 393 | 113 | 9 | 66 | 23 | 2 | 0 | 91 | 25 | 12.4 | 3.8 | 83 |
| B2982-5 | 273 | 208 | 60 | 7 | 29 | 45 | 12 | 6 | 86 | 57 | 5.3 | 5.3 | 74 |
| B2993-1 | 251 | 163 | 47 | 13 | 74 | 12 | 0 | 0 | 87 | 12 | 7.3 | 3.6 | 74 |
| B2993-2 | 420 | 290 | 84 | 3 | 20 | 44 | 26 | 7 | 90 | 69 | 6.6 | 6.6 | 68 |
| B2993-6 | 189 | 147 | 42 | 12 | 82 | 6 | 0 | 0 | 88 | 6 | 5.9 | 3.3 | 68 |
| B2994-1 | 395 | 337 | 97 | 4 | 59 | 37 | 0 | 0 | 96 | 37 | 8.3 | 5.0 | 78 |
| B2996-1 | 206 | 162 | 47 | 19 | 73 | 9 | 0 | 0 | 81 | 9 | 6.5 | 3.3 | 74 |
| B2996-2 | 441 | 366 | 106 | 8 | 51 | 42 | 0 | 0 | 92 | 42 | 10.5 | 4.4 | 73 |
| B2999-1 | 299 | 268 | 77 | 5 | 56 | 35 | 4 | 0 | 95 | 38 | 6.7 | 4.6 | 82 |
| B2999-3 | 226 | 115 | 33 | 44 | 56 | 0 | 0 | 0 | 56 | 0 | 9.5 | 2.5 | 80 |
| B2999-6 | 237 | 141 | 41 | 38 | 60 | 2 | 0 | 0 | 62 | 2 | 12.3 | 2.0 | 78 |

(continued)

Upstate New York Table 24. -(cont'd)- Total yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight and specific gravity for the USDA "B" clone observational trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | | Size Distrib. (%) | | Mean Tuber | | Spec. Grav. |
|---------------------------------|-------------------------|------------|--------------|--|----|----|----|----|-------------------|-----------------|------------|----------|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | 5 | 1-7/8" to 4" | 2-1/2" to 4" | #/ft. | wt.(oz.) | |
| B3000-1 | 245 | 206 | 60 | 4 | 69 | 23 | 4 | 0 | 96 | 27 | 6.1 | 4.2 | 78 |
| B3000-2 | 418 | 356 | 103 | 7 | 59 | 34 | 0 | 0 | 93 | 34 | 11.1 | 3.9 | 73 |
| B3002-1 | 332 | 216 | 62 | 6 | 34 | 51 | 10 | 0 | 94 | 60 | 6.5 | 5.3 | 85 |
| B3003-2 | 425 | 396 | 114 | 4 | 60 | 36 | 0 | 0 | 96 | 36 | 9.6 | 4.6 | 74 |
| B3005-6 | 287 | 208 | 60 | 1 | 25 | 54 | 15 | 5 | 94 | 69 | 4.3 | 6.9 | 82 |
| B3005-7 | 363 | 259 | 75 | 14 | 62 | 24 | 0 | 0 | 86 | 24 | 10.2 | 3.7 | 85 |
| B3005-9 | 475 | 371 | 107 | 9 | 63 | 23 | 5 | 0 | 91 | 27 | 22.9 | 2.2 | 82 |
| B3010-2 | 414 | 250 | 72 | 5 | 22 | 35 | 17 | 21 | 74 | 52 | 6.2 | 7.0 | 73 |
| B3012-3 | 279 | 221 | 64 | 14 | 74 | 12 | 0 | 0 | 86 | 12 | 9.6 | 3.0 | 83 |
| B3013-1 | 478 | 345 | 100 | 22 | 64 | 15 | 0 | 0 | 78 | 15 | 17.1 | 2.9 | 87 |
| B3019-2 | 375 | 301 | 87 | 15 | 75 | 10 | 0 | 0 | 85 | 10 | 13.5 | 2.9 | 82 |
| B3021-1 | 317 | 252 | 73 | 15 | 80 | 5 | 0 | 0 | 85 | 5 | 11.0 | 3.0 | 80 |
| B3042-2 | 566 | 470 | 136 | 8 | 55 | 35 | 2 | 0 | 92 | 37 | 14.6 | 4.0 | 97 |
| BNC312-1 | 373 | 293 | 85 | 4 | 47 | 37 | 12 | 0 | 96 | 48 | 7.2 | 5.4 | 94 |
| BNC318-6 | 306 | 278 | 80 | 5 | 49 | 46 | 0 | 0 | 95 | 46 | 6.7 | 4.7 | 73 |
| BNC318-7 | 488 | 424 | 122 | 3 | 30 | 52 | 15 | 0 | 97 | 67 | 7.5 | 6.8 | 73 |
| BNC362-2 | 423 | 339 | 98 | 16 | 64 | 20 | 0 | 0 | 84 | 20 | 12.6 | 3.5 | 95 |
| BNC363-11 | 425 | 339 | 98 | 13 | 66 | 21 | 0 | 0 | 87 | 21 | 11.5 | 3.8 | 95 |
| BNC364-1 | 337 | 302 | 87 | 10 | 71 | 19 | 0 | 0 | 90 | 19 | 8.6 | 4.1 | 81 |
| BNC365-4 | 262 | 176 | 51 | 26 | 69 | 5 | 0 | 0 | 74 | 5 | 10.0 | 2.7 | 75 |
| BNC366-1 | 325 | 261 | 75 | 8 | 56 | 33 | 3 | 0 | 92 | 36 | 7.9 | 4.3 | 80 |
| BNC369-1 | 452 | 329 | 95 | 10 | 70 | 20 | 0 | 0 | 90 | 20 | 12.9 | 3.6 | 90 |
| Average: | 361 | 278 | 80 | 10 | 53 | 29 | 4 | 2 | 88 | 34 | 9.1 | 4.4 | 79 |
| Maximum: | 566 | 482 | 139 | 44 | 82 | 67 | 30 | 24 | 97 | 69 | 22.9 | 8.0 | 97 |
| Minimum: | 189 | 115 | 33 | 1 | 2 | 0 | 0 | 0 | 56 | 0 | 4.3 | 2.0 | 65 |

¹Tuber size classes: 1 = 1" to 1-7/8", 2 = 1-7/8" to 2-1/2", 3 = 2-1/2" to 3-1/4", 4 = 3-1/4" to 4", and 5 = over 4" dia.

Plant Date: May 16

Maturity Ratings: Sep 5

Vinekill Date: Sep 11

Harvest Date: Oct 9

Note: all entries are in a 1 replication observational plot but standards denoted by ** are in 2 replications.

Upstate New York Table 25. Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the USDA "B" clone observational trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|---------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Bn. Center | Vasc. Disc. | Int. Nec. | |
| ATLANTIC ** | 4.5 | 2 | 6 | 4.5 | 14.4 | 7.6 | 2.6 | 2.9 | 1.3 | 65.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| KATAHDIN ** | 5.5 | 6 | 8 | 4.5 | 11.9 | 8.4 | 2.2 | 1.3 | 0.0 | 65.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| KENNEBEC | 5.0 | 8 | 8 | 3.5 | 36.8 | 7.6 | 17.1 | 12.0 | 0.0 | 20.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| SNOWDEN ** | 6.0 | 2 | 6 | 4.0 | 10.9 | 9.8 | 1.2 | 0.0 | 0.0 | 55.0 | 0.0 | 5.0 | 0.0 | 0.8 |
| SUPERIOR | 2.0 | 5 | 6 | 5.0 | 10.7 | 0.0 | 6.6 | 4.1 | 0.0 | 50.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| B2728-2 | 7.0 | 3 | 8 | 6.5 | 2.0 | 1.0 | 0.2 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B2817-16 | 5.0 | 2 | 8 | 6.0 | 9.4 | 6.0 | 1.6 | 0.9 | 0.9 | 10.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2827-7 | 6.0 | 3 | 8 | 3.0 | 31.2 | 7.8 | 1.6 | 21.8 | 0.0 | 80.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2930-5 | 5.0 | 3 | 8 | 6.0 | 6.3 | 4.9 | 1.4 | 0.0 | 0.0 | 40.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| B2951-7 | 6.0 | 1 | 6 | 5.0 | 12.3 | 6.4 | 2.1 | 3.8 | 0.0 | 20.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| B2951-8 | 7.0 | 3 | 8 | 5.0 | 19.5 | 6.7 | 12.4 | 0.5 | 0.0 | 80.0 | 0.0 | 0.0 | 60.0 | 2.0 |
| B2952-6 | 4.0 | 3 | 8 | 6.0 | 13.7 | 9.9 | 2.4 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| B2952-7 | 1.0 | 1 | 8 | 6.0 | 8.4 | 2.0 | 5.2 | 1.2 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 1.5 |
| B2954-11 | 1.0 | 1 | 7 | 5.5 | 2.5 | 1.7 | 0.0 | 0.8 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| B2954-20 | 2.0 | 2 | 8 | 6.0 | 14.0 | 13.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 | 0.0 | 1.0 |
| B2981-2 | 6.0 | 1 | 6 | 6.0 | 15.7 | 5.5 | 0.0 | 10.2 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B2981-5 | 6.0 | 2 | 7 | 5.5 | 7.4 | 0.0 | 2.0 | 5.4 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 |
| B2981-7 | 6.0 | 1 | 6 | 6.0 | 3.0 | 2.1 | 1.0 | 0.0 | 0.0 | 20.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B2982-5 | 5.0 | 2 | 8 | 6.0 | 10.1 | 2.9 | 2.3 | 4.9 | 0.0 | 40.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2993-1 | 3.0 | 3 | 6 | 4.0 | 21.8 | 10.2 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 1.5 |
| B2993-2 | 3.0 | 3 | 7 | 3.0 | 20.7 | 4.6 | 16.2 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 4.0 |
| B2993-6 | 1.0 | 3 | 5 | 3.5 | 10.9 | 3.4 | 0.0 | 1.5 | 6.0 | 40.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| B2994-1 | 1.0 | 2 | 8 | 5.5 | 10.2 | 4.1 | 2.0 | 2.9 | 1.3 | 90.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2996-1 | 2.0 | 2 | 6 | 5.0 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| B2996-2 | 1.0 | 2 | 8 | 6.0 | 9.6 | 4.7 | 1.6 | 2.2 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B2999-1 | 1.0 | 3 | 8 | 6.0 | 5.0 | 4.5 | 0.0 | 0.5 | 0.0 | 30.0 | 0.0 | 10.0 | 0.0 | 2.0 |
| B2999-3 | 1.0 | 6 | 5 | 4.0 | 5.0 | 0.9 | 2.2 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| B2999-6 | 1.0 | 2 | 6 | 5.5 | 2.1 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 |

(continued)

Upstate New York Table 25. -(cont'd)- Plant maturity, tuber shape and appearance, percentage of external and internal tuber defects, and scab rating for the USDA "B" clone observational trial grown at Freeville, New York - 2013.

| Genotype Variety or Clone | Plant ¹ Mat. At Vinekill | Tuber Attributes ¹ | | | External Tuber Defects (%) | | | | | Int. Tuber Defects (%) ² | | | | Scab Rating |
|---------------------------------|---|-------------------------------|---------------|------------------|----------------------------|---------------|----------------|------------------|-----|-------------------------------------|----------------|----------------|--------------|----------------|
| | | Tuber Shape | Skin Text. | Tuber Appear. | Total Defects | Sun- Green | Mis- shapen | Growth Cracks | Rot | Holl. Heart | Brn. Center | Vasc. Disc. | Int. Nec. | |
| B3000-1 | 6.0 | 2 | 7 | 6.0 | 12.1 | 9.8 | 0.0 | 2.3 | 0.0 | 20.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| B3000-2 | 7.0 | 2 | 8 | 6.5 | 7.6 | 7.6 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B3002-1 | 5.0 | 2 | 6 | 4.5 | 29.2 | 11.1 | 0.0 | 16.6 | 1.5 | 30.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B3003-2 | 3.0 | 3 | 8 | 0.0 | 2.8 | 1.3 | 1.0 | 0.5 | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| B3005-6 | 6.0 | 6 | 5 | 4.0 | 21.5 | 5.2 | 4.9 | 9.4 | 2.0 | 40.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| B3005-7 | 5.0 | 3 | 6 | 4.5 | 14.6 | 10.2 | 2.9 | 0.0 | 1.6 | 80.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B3005-9 | 4.0 | 3 | 8 | 4.0 | 12.7 | 7.3 | 5.4 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| B3010-2 | 5.0 | 8 | 6 | 3.0 | 14.0 | 4.3 | 4.8 | 5.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 4.0 |
| B3012-3 | 5.0 | 1 | 7 | 6.0 | 7.1 | 3.8 | 1.8 | 1.5 | 0.0 | 60.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| B3013-1 | 4.0 | 1 | 6 | 6.0 | 6.1 | 1.9 | 4.2 | 0.0 | 0.0 | 40.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| B3019-2 | 6.0 | 1 | 8 | 6.0 | 5.3 | 2.3 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| B3021-1 | 2.0 | 2 | 6 | 5.0 | 5.4 | 1.3 | 0.4 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| B3042-2 | 6.0 | 2 | 8 | 3.0 | 8.8 | 3.4 | 2.6 | 2.8 | 0.0 | 80.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| BNC312-1 | 4.0 | 3 | 7 | 3.0 | 17.3 | 8.0 | 1.3 | 7.2 | 0.8 | 60.0 | 0.0 | 0.0 | 0.0 | 4.0 |
| BNC318-6 | 7.0 | 3 | 6 | 3.5 | 4.4 | 2.1 | 1.4 | 0.9 | 0.0 | 50.0 | 0.0 | 10.0 | 0.0 | 2.5 |
| BNC318-7 | 5.0 | 1 | 6 | 5.0 | 10.3 | 3.9 | 2.0 | 4.4 | 0.0 | 70.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| BNC362-2 | 4.0 | 4 | 6 | 4.5 | 4.0 | 3.7 | 0.3 | 0.0 | 0.0 | 60.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| BNC363-11 | 7.0 | 1 | 5 | 5.0 | 7.2 | 2.2 | 0.8 | 0.0 | 4.2 | 50.0 | 0.0 | 10.0 | 0.0 | 2.5 |
| BNC364-1 | 1.0 | 3 | 8 | 5.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| BNC365-4 | 2.0 | 1 | 6 | 5.5 | 7.0 | 4.6 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 2.0 |
| BNC366-1 | 7.0 | 3 | 8 | 5.0 | 12.0 | 2.6 | 0.0 | 8.1 | 1.3 | 90.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| BNC369-1 | 7.0 | 1 | 8 | 6.0 | 17.4 | 13.9 | 3.4 | 0.0 | 0.0 | 10.0 | 0.0 | 20.0 | 0.0 | 0.0 |
| Average: | 4.2 | 3 | 7 | 4.9 | 11.1 | 5.0 | 2.7 | 2.8 | 0.5 | 36.9 | 0.0 | 2.3 | 1.4 | 1.7 |
| Maximum: | 7.0 | 8 | 8 | 6.5 | 36.8 | 13.9 | 17.1 | 21.8 | 6.0 | 100.0 | 0.0 | 20.0 | 60.0 | 4.0 |
| Minimum: | 1.0 | 1 | 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

¹See the standard NE1031 rating system for a key to these rating scales in the appendix in the rear of this report.

²Based on a 10-tuber sample from each replication. The tubers were taken from the size 3 and 4 categories.

Upstate New York Table 26. Yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, percentage of defects, and specific gravity for Steuben County chipping variety trial grown near Arkport, New York - 2013.

| Variety or Clone | Total Yield | Mkt. Yield | | Size Distribution ¹ | | | | Mean Tuber | | Percent External Tuber Defects | | | | Percent Internal Tuber Defects | | | | Spec. Grav. |
|---------------------|----------------|------------|--------------|--------------------------------|----|----|---|------------|--------|-----------------------------------|-----|----|-----|-----------------------------------|----|----|-----|----------------|
| | Cwt/A | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | #/ft | wt(oz) | SUN | KNB | GC | ROT | HH | BC | VD | NEC | |
| ACCUMULATOR | 387 | 343 | 91 | 9 | 67 | 24 | 0 | 8.7 | 4.9 | 1 | 0 | 1 | 0 | 10 | 5 | 0 | 0 | 103 |
| ATLANTIC | 435 | 375 | 100 | 7 | 61 | 32 | 1 | 9.3 | 5.1 | 6 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 98 |
| J2-21 * | 382 | 319 | 85 | 11 | 70 | 20 | 0 | 9.1 | 4.6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 |
| J3-14 * | 376 | 324 | 86 | 11 | 74 | 15 | 0 | 10.0 | 4.2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 |
| J5-2 * | 365 | 267 | 71 | 20 | 75 | 5 | 0 | 12.9 | 3.1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| J13-2 * | 407 | 337 | 90 | 14 | 65 | 21 | 0 | 10.6 | 4.2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| J15-7 * | 430 | 372 | 99 | 10 | 63 | 25 | 1 | 10.1 | 4.7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| J17-1 * | 253 | 214 | 57 | 14 | 83 | 4 | 0 | 6.4 | 4.4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105 |
| LAMOKA | 342 | 297 | 79 | 9 | 73 | 18 | 0 | 9.9 | 3.8 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 |
| MSR061-1 | 362 | 309 | 82 | 12 | 70 | 17 | 0 | 9.5 | 4.2 | 2 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 97 |
| NICOLET | 360 | 286 | 76 | 14 | 69 | 17 | 0 | 10.1 | 3.9 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 |
| NY140 | 436 | 382 | 102 | 7 | 60 | 32 | 1 | 9.1 | 5.3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 |
| NY148 | 376 | 311 | 83 | 16 | 75 | 9 | 0 | 10.7 | 3.9 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 102 |
| SNOWDEN | 376 | 295 | 79 | 17 | 70 | 13 | 0 | 11.5 | 3.6 | 5 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 100 |
| WANETA | 430 | 365 | 97 | 7 | 54 | 38 | 2 | 8.0 | 5.9 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 |
| Average: | 381 | 320 | 85 | 12 | 69 | 19 | 0 | 9.7 | 4.4 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 94 |
| Maximum: | 436 | 382 | 102 | 20 | 83 | 38 | 2 | 12.9 | 5.9 | 7 | 0 | 1 | 0 | 30 | 5 | 0 | 0 | 105 |
| Minimum: | 253 | 214 | 57 | 7 | 54 | 4 | 0 | 6.4 | 3.1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |

¹Tuber size classes: 1 = under 2" dia., 2 = 2" to 3" dia., 3 = 3" to 4" dia., and 4 = over 4" dia.

Plant Date: June 5

Vinekill Dates: September 17 & 23

Harvest Date: October 15

Fertilizer: 128N - 256P- 128K - 4S - 4Zn - 0.24B lbs. per acre

Vinekill: 1 pt./a Reglone + crop oil

Irrigation: none

Other: 7 oz/a Quadris, 2.67 oz/a Platinum.

36" bed width by 8 inch within row spacing

* Note: This trial had two replications, except there was only one plot each for the six "J" clones as denoted by "*".

Upstate New York Table 27. Yield, marketable yield, percentage of yield by grade size distribution, mean tuber number per foot and weight, percentage of defects, and specific gravity for Wyoming County chipping variety trial grown near Bliss, New York - 2013.

| Variety or Clone | Total Yield Cwt/A | Mkt. Yield | | Size Distribution ¹ (% of total yield) | | | | Mean Tuber | | Percent External Tuber Defects | | | | Percent Internal Tuber Defects | | | | Spec. Grav. |
|---------------------|-------------------------|------------|--------------|--|----|----|---|------------|--------|-----------------------------------|-----|----|-----|-----------------------------------|----|----|-----|----------------|
| | | Cwt/A | % of Std. | 1 | 2 | 3 | 4 | #/ft | wt(oz) | SUN | KNB | GC | ROT | HH | BC | VD | NEC | |
| ACCUMULATOR | 412 | 357 | 108 | 9 | 56 | 33 | 2 | 8.7 | 5.0 | 1 | 0 | 1 | 0 | 5 | 0 | 0 | 5 | 96 |
| ATLANTIC | 376 | 331 | 100 | 9 | 66 | 24 | 1 | 8.5 | 4.6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96 |
| J2-21 * | 205 | 175 | 53 | 10 | 82 | 8 | 0 | 5.9 | 3.6 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| J3-14 * | 322 | 231 | 70 | 27 | 69 | 4 | 0 | 11.8 | 2.8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82 |
| J5-2 * | 294 | 202 | 61 | 30 | 69 | 1 | 0 | 11.7 | 2.6 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 10 | 86 |
| J13-2 * | 329 | 254 | 77 | 22 | 75 | 3 | 0 | 11.4 | 3.0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| J15-7 * | 391 | 337 | 102 | 10 | 72 | 17 | 1 | 9.3 | 4.4 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 93 |
| J17-1 * | 312 | 227 | 69 | 25 | 73 | 2 | 0 | 9.9 | 3.3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 |
| LAMOKA | 312 | 252 | 76 | 16 | 72 | 12 | 0 | 8.2 | 4.0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 92 |
| MSR061-1 | 358 | 287 | 87 | 19 | 75 | 6 | 0 | 11.5 | 3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 |
| NICOLET | 329 | 242 | 73 | 20 | 69 | 10 | 1 | 10.2 | 3.4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 |
| NY140 | 400 | 336 | 101 | 14 | 75 | 12 | 0 | 9.8 | 4.2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87 |
| NY148 | 413 | 334 | 101 | 14 | 73 | 11 | 2 | 11.0 | 3.9 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 98 |
| SNOWDEN | 390 | 293 | 89 | 24 | 70 | 6 | 0 | 13.0 | 3.1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 |
| WANETA | 232 | 184 | 55 | 19 | 74 | 8 | 0 | 6.4 | 3.7 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 86 |
| Average: | 338 | 269 | 81 | 18 | 71 | 10 | 0 | 9.8 | 3.7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 91 |
| Maximum: | 413 | 357 | 108 | 30 | 82 | 33 | 2 | 13.0 | 5.0 | 4 | 3 | 1 | 0 | 5 | 0 | 0 | 10 | 98 |
| Minimum: | 205 | 175 | 53 | 9 | 56 | 1 | 0 | 5.9 | 2.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82 |

¹Tuber size classes: 1 = under 2" dia., 2 = 2" to 3" dia., 3 = 3" to 4" dia., and 4 = over 4" dia.

Plant Date: May 31

Vinekill Date: September 30

Harvest Date: October 11

Vinekill: 2 pt. Diquat per acre

Irrigation: none

Fertilizer: 110 N-160 P-185 K-3.3 MG-20.8 S-0.6 B at planting plus 82 N at hilling.

34 " bed width by 8 inch within row spacing

* Note: This trial had two replications, except there was only one plot each for the six "J" clones denoted by "*".

Other: 3 pt. Vydate at planting

Upstate New York Table 28. 2012 Potato Variety Trials - Chip Color Agtron Readings¹

| Variety/Clone (Seed Source) | Freeville ² | | | | | | | | Upstate Counties ² | | | | | | | | |
|-----------------------------|------------------------|--------|------|----------|------|------|--------------|------|-------------------------------|------|-----------------|------|----------------|------|---------|------|------|
| | | | | | CU | | USDA | | Steuben | | Wyoming | | Steuben | | Wyoming | | |
| | Early | Medium | | Med-Late | | Late | H + J Clones | | Clones | | Cornell Storage | | Grower Storage | | | | |
| | Field | 45 | 40 | 45 | 40 | 45 | 40 | 45 | 40 | 45 | 40 | 45 | 40 | 45 | 40 | 52 | 50 |
| ANDOVER | 55.8 | - | - | - | - | - | - | 62.3 | 47.5 | - | - | - | - | - | - | - | - |
| ATLANTIC | 55.8 | 56.8 | 43.2 | 59.4 | 39.6 | 57.9 | 50.3 | 59.5 | 42.1 | 57.3 | 52.3 | 62.6 | 58.3 | 56.7 | 46.3 | 58.2 | 59.2 |
| DAKOTA CRISP | - | 59.4 | 54.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| LAMOKA - (NY139) | - | - | - | - | - | 60.5 | 67.5 | - | - | - | - | 62.6 | 60.2 | 60.9 | 60.1 | 54.8 | 65.7 |
| LELAH (W2717-5) | - | - | - | - | - | - | - | - | - | - | - | 56.3 | 56.5 | 57.0 | 58.3 | 56.9 | 66.8 |
| MARCY | - | - | - | - | - | 59.4 | 68.1 | - | - | - | - | - | - | - | - | - | - |
| REBA | - | 55.5 | 43.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ROCHDALE GOLD-DOREE | 51.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| SNOWDEN | - | 61.1 | 66.2 | 63.9 | 63.6 | 61.9 | 67.3 | 62.1 | 61.6 | 57.9 | 58.8 | 62.1 | 60.9 | 59.8 | 61.1 | 60.7 | 63.0 |
| SUPERIOR | 51.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TUNDRA (W2310-3) | - | - | - | - | - | - | - | - | - | - | - | 61.0 | 61.6 | 60.4 | 55.8 | 58.4 | 65.2 |
| WANETA - (NY138) | - | - | - | - | - | 61.3 | 65.2 | - | - | - | - | 66.3 | 62.7 | 65.2 | 58.1 | 58.5 | 67.5 |
| AF0338-17 | - | 35.6 | 34.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4130-7 | - | - | - | 58.6 | 49.7 | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4147-1 | - | 55.6 | N/A | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4157-6 BC | 56.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4363-5 | - | - | - | 60.8 | 56.2 | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4376-3 | - | 53.5 | 38.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4430-2 | - | - | - | 33.6 | 19.1 | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4442-4 | - | - | - | - | - | 55.8 | 54.6 | - | - | - | - | - | - | - | - | - | - |
| AF4454-3 | - | - | - | 36.5 | 18.4 | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4463-7 | - | - | - | 55.9 | 36.3 | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4463-8 | - | - | - | - | - | 59.0 | 48.1 | - | - | - | - | - | - | - | - | - | - |
| B2589-4 | - | - | - | - | - | - | - | - | - | 52.7 | 40.2 | - | - | - | - | - | - |
| B2727-2 BC | - | 59.2 | 61.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| B2728-2 | - | - | - | - | - | - | - | - | - | 51.4 | 39.3 | - | - | - | - | - | - |
| B2737-2 | - | - | - | - | - | - | - | - | - | 58.8 | 39.1 | - | - | - | - | - | - |
| B2814-14 | - | - | - | - | - | - | - | - | - | 40.8 | 3.1 | - | - | - | - | - | - |
| B2820-4 | - | - | - | - | - | - | - | - | - | 39.1 | 13.3 | - | - | - | - | - | - |

(continued)

Upstate New York Table 28. - (cont'd) - 2012 Potato Variety Trials - Chip Color Agtron Readings¹

| Variety/Clone (Seed Source) | Freeville ² | | | | | | | | Upstate Counties ² | | | | | | | | |
|-----------------------------|------------------------|--------|----------|------|--------------|------|--------|------|-------------------------------|------|---------|------|----------------|------|---------|------|------|
| | | | | | CU | | USDA | | Steuben | | Wyoming | | Steuben | | Wyoming | | |
| | Early | Medium | Med-Late | Late | H + J Clones | | Clones | | Cornell Storage | | | | Grower Storage | | | | |
| Field | 45 | 40 | 45 | 40 | 45 | 40 | 45 | 40 | 45 | 40 | 45 | 40 | 45 | 40 | 52 | 50 | |
| B2869-28 | - | - | - | - | - | - | - | - | 58.5 | 36.9 | - | - | - | - | - | - | |
| B2883-12 | - | - | - | - | - | - | - | - | 53.7 | 41.9 | - | - | - | - | - | - | |
| BNC182-5 | - | - | - | 56.7 | N/A | - | - | - | 54.5 | 45.6 | - | - | - | - | - | - | |
| BNC202-3 | - | - | - | - | - | - | - | - | 55.2 | 47.0 | - | - | - | - | - | - | |
| CO99045-1W/Y | - | - | - | - | - | N/A | 23.6 | - | - | - | - | - | - | - | - | - | |
| H25-4 | - | - | - | - | - | - | - | 67.0 | 65.4 | - | - | - | - | - | - | - | |
| J15-7 | - | - | - | - | - | - | - | 63.1 | 64.8 | - | - | - | - | - | - | - | |
| J17-1 | - | - | - | - | - | - | - | 61.9 | 57.0 | - | - | - | - | - | - | - | |
| J105-10 | - | - | - | - | - | - | - | 62.5 | 65.4 | - | - | - | - | - | - | - | |
| MSQ279-1 | - | - | - | - | - | 56.5 | 55.3 | - | - | - | - | - | - | - | - | - | |
| MSS576-055SPL | 55.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| NY140 | - | - | - | - | - | 62.3 | 68.8 | - | - | - | - | 61.3 | 61.1 | 59.1 | 58.6 | 56.9 | 66.1 |
| NY141 | 55.3 | 54.1 | N/A | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| NY148 | - | - | - | - | - | 62.1 | 66.8 | - | - | - | - | 63.6 | 65.9 | 63.2 | 61.3 | 54.6 | 69.4 |
| W5015-12 | - | - | - | 63.8 | 64.0 | - | - | - | - | - | - | - | - | - | - | - | |
| W6703-1Y | - | - | - | 55.1 | 40.2 | - | - | - | - | - | - | - | - | - | - | - | |
| W6703-5Y | - | - | - | 43.7 | 19.4 | - | - | - | - | - | - | - | - | - | - | - | |

¹Agtron M600 Colorimeter readings. Standards for whole chips were disks 00 and 90. 200g samples of slices were taken from 15 tubers and fried in vegetable oil at 375°F. A minimum acceptable Agtron would be 50.

²The Early trial at Freeville was chipped out of the field, 2 days after harvest. The other Freeville trials and the county trials (designated "Cornell") were stored in Cornell facilities at 45°F and 40°F. The "Grower" samples from the counties were stored in the growers' facilities at the temperatures specified. After warm-up, at 65°F for two weeks, the 45°F Freeville samples were chipped between January 21 to January 30. The county 45°F samples stored at Cornell were also warmed-up for two weeks at 65°F. The Steuben and Wyoming county samples were chipped on January 31 and February 1, respectively. After warm-up for three weeks at 65°F, the 40°F Freeville samples were chipped between March 11 and March 20. The county 40°F samples stored at Cornell were also warmed-up for three weeks at 65°F. The Steuben and Wyoming samples were chipped on March 21 and March 22, respectively. The Steuben samples from the growers' storage were chipped without warm-up on January 17. The Wyoming samples from the growers' storage were chipped without warmup on June 3.

Upstate New York Table 29. 2012 Freeville Trials - After-cooking darkening and sloughing ratings¹

| Variety/Clone ² | Cornell | | | | | | | | | | | | USDA | | | | Wayne | | Wayne | | | | | | | |
|----------------------------|--------------|-----|---------------|-----|---------------|-----|-------------|-----|-----------------|-----|---------------|-----|-------------------|-----|---------------|-----|----------------|-----|----------------|-----|------------|-----|--------------|-----|-----|-----|
| | <u>Early</u> | | <u>Medium</u> | | <u>M-Late</u> | | <u>Late</u> | | <u>Red/Purp</u> | | <u>Russet</u> | | <u>H+J Clones</u> | | <u>Clones</u> | | <u>Steuben</u> | | <u>Wyoming</u> | | <u>Red</u> | | <u>White</u> | | | |
| | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG |
| AEGGEBLOMME YF1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.5 | 3.7 | - | - | - | - | - | - | - | - | - | - | - |
| ANDOVER | 4.3 | 3.3 | - | - | - | - | - | - | - | - | - | - | - | 3.7 | 2.5 | - | - | - | - | - | - | - | - | - | - | - |
| ATLANTIC | 3.6 | 2.7 | 4.4 | 2.8 | 4.1 | 2.6 | 3.4 | 2.0 | - | - | - | - | - | 3.2 | 2.2 | 2.5 | 1.0 | 3.6 | 2.2 | 4.2 | 2.0 | - | - | 3.7 | 3.3 | |
| BLOSSOM RF | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.3 | 1.9 | - | - | - | - | - | - | - | - | - | - | - |
| CASTILE | - | - | - | - | 4.5 | 3.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| CHIEFTAIN | - | - | - | - | - | - | - | - | 4.3 | 3.3 | - | - | - | - | - | - | - | - | - | - | - | - | 4.5 | 4.2 | - | - |
| DAKOTA CRISP | - | - | 2.8 | 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| DAKOTA TRAILBLAZER | - | - | - | - | - | - | - | - | - | - | 2.8 | 1.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| DARK RED NORLAND | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.9 | 4.0 | - | - | - |
| DARK RED NORLAND-NE1031 | - | - | - | - | - | - | - | - | 2.9 | 3.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| DARK RED NORLAND-USDA | - | - | - | - | - | - | - | - | 2.3 | 2.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| EVA | - | - | 4.3 | 3.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| GENESEE | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.1 | 3.7 | - | - | - | - | - | - | - | - | - | - | - |
| KATAHDIN | - | - | - | - | - | - | 4.1 | 3.5 | - | - | - | - | - | 3.5 | 3.0 | - | - | - | - | - | - | - | - | - | - | - |
| KENNEBEC | - | - | - | - | 4.1 | 3.5 | - | - | - | - | - | - | - | - | - | 3.8 | 2.4 | - | - | - | - | - | - | - | - | - |
| KEUKA GOLD YF1 | - | - | - | - | 3.9 | 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| LAMOKA (NY139) | - | - | - | - | - | - | 2.4 | 2.5 | - | - | - | - | - | - | - | - | - | 3.1 | 3.0 | 3.9 | 3.0 | - | - | - | - | - |
| LEHIGH YF1 | - | - | 4.6 | 4.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.0 | 3.9 | - |
| LELAH (W2717-5) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.5 | 4.3 | 3.6 | 3.5 | - | - | - | - | - |
| MARCY | - | - | - | - | - | - | 2.8 | 1.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PURPLE 5 | - | - | - | - | - | - | - | - | 3.5 | 1.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| REBA | - | - | 4.5 | 4.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.2 | 4.7 | - |
| RED MARIA | - | - | - | - | - | - | - | - | 4.6 | 3.4 | - | - | - | - | - | - | - | - | - | - | - | 3.8 | 4.2 | - | - | - |
| ROCHDALE GOLD-DOREE YF3 | 4.2 | 4.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ROSE VALLEY YF1 | - | - | - | - | - | - | - | - | 3.7 | 3.2 | - | - | - | - | - | - | - | - | - | - | - | - | 4.6 | 4.3 | - | - |
| RUSSET BURBANK | - | - | - | - | - | - | - | - | - | - | 3.4 | 2.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RUSSET NORKOTAH | - | - | - | - | - | - | - | - | - | - | 3.0 | 1.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| SALEM | - | - | 4.4 | 2.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| SHEPODY | - | - | - | - | - | - | - | - | - | - | 3.1 | 1.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

(continued)

Upstate New York Table 29. - (cont'd) - 2012 Freeville Trials - After-cooking darkening and sloughing ratings¹

| Variety/Clone ² | Early | | Medium | | M-Late | | Late | | Red/Purp | | Russet | | Cornell H+J Clones | | USDA Clones | | Steuben | | Wyoming | | Wayne Red | | Wayne White | | |
|----------------------------|-------|-----|--------|-----|--------|-----|------|-----|----------|-----|--------|-----|-----------------------|-----|----------------|-----|---------|-----|---------|-----|--------------|-----|----------------|-----|-----|
| | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | |
| SIBERIAN | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.5 | 4.0 | - | - | - | - | - | - | - | - | - | - |
| SNOWDEN | - | - | 3.9 | 2.9 | 3.6 | 3.3 | 3.1 | 1.7 | - | - | - | - | - | 2.9 | 1.7 | 2.9 | 1.5 | 3.1 | 3.2 | 4.6 | 2.6 | - | - | - | - |
| SPARTAN SPLASH YF2 | - | - | - | - | - | - | 4.0 | 3.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.4 | 3.8 |
| SUPERIOR | 3.2 | 2.7 | - | - | - | - | - | - | - | - | - | - | - | 3.6 | 3.3 | - | - | - | - | - | - | - | - | - | - |
| TUNDRA (W2310-3) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.4 | 4.5 | 4.9 | 5.0 | - | - | - | - |
| WANETA | - | - | - | - | - | - | 3.6 | 4.7 | - | - | - | - | - | - | - | - | - | 3.8 | 4.7 | 3.7 | 4.5 | - | - | 4.6 | 5.0 |
| YUKON GEM YF2 | - | - | 4.3 | 3.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| YUKON GOLD YF2 | - | - | 4.2 | 2.5 | - | - | - | - | - | - | - | - | - | - | - | 3.8 | 1.9 | - | - | - | - | - | - | - | - |
| A00286-3Y YF2 | - | - | - | - | - | - | 3.9 | 2.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.4 | 4.0 |
| A00293-2Y YF2 | - | - | - | - | - | - | 4.9 | 4.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| A01010-1 | - | - | - | - | - | - | - | - | - | - | 2.0 | 2.7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| A02062-3TE | - | - | - | - | - | - | - | - | - | - | 3.7 | 3.1 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AC99329-7PW/Y YF3 | - | - | - | - | - | - | - | - | 3.8 | 3.6 | - | - | - | - | - | - | - | - | - | - | - | 4.5 | 4.6 | - | - |
| AC99375-1RU | - | - | - | - | - | - | - | - | - | - | 2.0 | 1.7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF0338-17 | - | - | 3.4 | 3.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.4 | 4.0 |
| AF3362-1 (NE1031) | - | - | - | - | - | - | - | - | - | - | 3.3 | 1.9 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF3362-1 (UM) | - | - | - | - | - | - | - | - | - | - | 3.1 | 2.0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4013-3 YF2 | - | - | - | - | 4.0 | 1.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.9 | 2.9 |
| AF4130-7 | - | - | - | - | 3.8 | 2.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4147-1 | - | - | 4.1 | 3.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4157-6 | 2.4 | 3.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.2 | 3.2 |
| AF4172-2 | - | - | - | - | - | - | - | - | - | - | 2.9 | 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4281-3 | - | - | - | - | - | - | - | - | - | - | 3.1 | 1.9 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4320-17 | - | - | - | - | - | - | - | - | - | - | 2.8 | 1.1 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4329-7 | - | - | - | - | - | - | - | - | - | - | 2.7 | 1.9 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4363-5 | - | - | - | - | 3.0 | 3.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4376-3 | - | - | 4.9 | 4.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4430-1 | - | - | - | - | - | - | - | - | - | - | 4.1 | 3.1 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4430-2 | - | - | - | - | 4.1 | 4.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

(continued)

Upstate New York Table 29. - (cont'd) - 2012 Freeville Trials - After-cooking darkening and sloughing ratings¹

| Variety/Clone ² | Early | | Medium | | M-Late | | Late | | Red/Purp | | Russet | | Cornell H+J Clones | | USDA Clones | | Steuben | | Wyoming | | Wayne Red | | Wayne White | | |
|----------------------------|-------|-----|--------|-----|--------|-----|------|-----|----------|-----|--------|-----|-----------------------|-----|----------------|-----|---------|-----|---------|-----|--------------|-----|----------------|-----|---|
| | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | |
| AF4442-4 | - | - | - | - | - | - | 2.7 | 1.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4454-3 | - | - | - | - | 4.8 | 4.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4463-7 | - | - | - | - | 3.9 | 4.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| AF4463-8 | - | - | - | - | - | - | 3.5 | 2.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ATTX01178-1R | - | - | - | - | - | - | - | - | 3.6 | 4.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ATTX98453-3R | - | - | - | - | - | - | - | - | 5.0 | 5.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| B2589-4 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.0 | 1.9 | - | - | - | - | - | - | - | - | - | - |
| B2727-2 | - | - | 4.0 | 4.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| B2728-2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.1 | 2.4 | - | - | - | - | - | - | - | - | - | - |
| B2737-2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.6 | 3.3 | - | - | - | - | - | - | - | - | - | - |
| B2814-14 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.7 | 1.3 | - | - | - | - | - | - | - | - | - | - |
| B2820-4 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.2 | 1.8 | - | - | - | - | - | - | - | - | - | - |
| B2832-8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.4 | 3.6 | |
| B2842-3 YF2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.4 | 3.0 | |
| B2844-12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.5 | 4.8 | - | |
| B2869-28 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.8 | 2.7 | - | - | - | - | - | - | - | - | - | - |
| B2873-1 | - | - | - | - | - | - | - | - | 3.7 | 4.0 | - | - | - | - | - | - | - | - | - | - | - | 4.3 | 4.5 | - | |
| B2883-12 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.7 | 3.6 | - | - | - | - | - | - | - | - | - | - |
| B2905-1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.6 | 3.7 | |
| BNC182-5 | - | - | - | - | 4.0 | 3.3 | - | - | - | - | - | - | - | 2.5 | 1.9 | - | - | - | - | - | - | - | - | - | - |
| BNC202-3 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.3 | 1.1 | - | - | - | - | - | - | - | - | - | - |
| BTX2332-1R | - | - | - | - | - | - | - | - | 3.5 | 4.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| CO99045-1W/Y YF2 | - | - | - | - | - | - | 4.3 | 2.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| CO99053-3RU | - | - | - | - | - | - | - | - | - | - | 2.9 | 3.2 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| CO99100-1RU | - | - | - | - | - | - | - | - | - | - | 3.9 | 3.7 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| COTX02293-4R | - | - | - | - | - | - | - | - | 2.9 | 3.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H15-5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.6 | 3.8 | 4.8 | 4.8 | - | - | - | - | - |
| H15-17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.9 | 4.2 | |
| H25-4 | - | - | - | - | - | - | - | - | - | - | - | 3.2 | 3.5 | - | - | 3.2 | 4.4 | 2.8 | 4.6 | - | - | - | - | - | - |
| H52-1 BF | - | - | - | - | - | - | - | - | 5.0 | 4.6 | - | - | - | - | - | - | - | - | - | - | 5.0 | 4.7 | - | - | - |
| H122-4 | - | - | - | - | - | - | - | - | - | - | - | 4.8 | 4.3 | - | - | - | - | - | - | - | - | - | - | - | - |

(continued)

Upstate New York Table 29. - (cont'd) - 2012 Freeville Trials - After-cooking darkening and sloughing ratings¹

| Variety/Clone ² | | | | | | | | | | | Cornell | | USDA | | Wayne | | | | Wayne | | | | | |
|----------------------------|--------------|-----|---------------|-----|---------------|-----|-------------|-----|-----------------|-----|---------------|-------------------|------|---------------|----------------|-----|----------------|-----|------------|-----|--------------|-----|-----|-----|
| | <u>Early</u> | | <u>Medium</u> | | <u>M-Late</u> | | <u>Late</u> | | <u>Red/Purp</u> | | <u>Russet</u> | <u>H+J Clones</u> | | <u>Clones</u> | <u>Steuben</u> | | <u>Wyoming</u> | | <u>Red</u> | | <u>White</u> | | | |
| | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG | ACD | SLG |
| J2-25 | - | - | - | - | - | - | - | - | - | - | - | 2.6 | 2.6 | - | - | - | - | - | - | - | - | - | - | - |
| J3-14 | - | - | - | - | - | - | - | - | - | - | - | 3.1 | 2.4 | - | - | - | - | - | - | - | - | - | - | - |
| J9-6 | - | - | - | - | - | - | - | - | - | - | - | 4.7 | 4.3 | - | - | - | - | - | - | - | - | - | - | - |
| J13-2 | - | - | - | - | - | - | - | - | - | - | - | 3.5 | 2.1 | - | - | - | - | - | - | - | - | - | - | - |
| J15-7 | - | - | - | - | - | - | - | - | - | - | - | 2.5 | 1.5 | - | - | - | - | - | - | - | - | - | - | - |
| J17-1 | - | - | - | - | - | - | - | - | - | - | - | 2.3 | 1.0 | - | - | - | - | - | - | - | - | - | - | - |
| J18-2 | - | - | - | - | - | - | - | - | - | - | - | 4.4 | 3.5 | - | - | - | - | - | - | - | - | - | - | - |
| J21-5 | - | - | - | - | - | - | - | - | - | - | - | 3.1 | 3.6 | - | - | - | - | - | - | - | - | - | - | - |
| J34-1 | - | - | - | - | - | - | - | 3.2 | 3.0 | - | - | - | - | - | - | - | - | - | - | 3.8 | 4.0 | - | - | - |
| J100-5 | - | - | - | - | - | - | - | - | - | - | - | 4.0 | 3.4 | - | - | - | - | - | - | - | - | - | - | - |
| J102-9 | - | - | - | - | - | - | - | - | - | - | - | 3.6 | 2.8 | - | - | - | - | - | - | - | - | - | - | - |
| J105-10 | - | - | - | - | - | - | - | - | - | - | - | 3.1 | 2.7 | - | - | - | - | - | - | - | - | - | - | - |
| J110-12 | - | - | - | - | - | - | - | - | - | - | - | 3.8 | 3.6 | - | - | - | - | - | - | - | - | - | - | - |
| MSQ279-1 | - | - | - | - | - | 3.8 | 4.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MSR214-2P | - | - | - | - | - | - | - | 3.0 | 2.8 | - | - | - | - | - | - | - | - | - | - | 3.5 | 4.2 | - | - | - |
| MSS576-055SPL | 2.4 | 3.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| NDA050237B-1R | - | - | - | - | - | - | - | 2.7 | 3.0 | - | - | - | - | - | - | - | - | - | - | 3.5 | 4.2 | - | - | - |
| NDTX4784-7R | - | - | - | - | - | - | - | 3.0 | 2.4 | - | - | - | - | - | - | - | - | - | - | 4.0 | 3.0 | - | - | - |
| NY136 | - | - | - | - | - | - | - | 3.3 | 2.5 | - | - | - | - | - | - | - | - | - | - | 4.4 | 4.1 | - | - | - |
| NY140 | - | - | - | - | - | 3.1 | 2.3 | - | - | - | - | - | - | - | - | 4.8 | 3.8 | 3.4 | 3.3 | - | - | 4.3 | 3.9 | - |
| NY141 | 4.3 | 4.8 | 4.5 | 4.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.5 | 4.6 | - |
| NY148 | - | - | - | - | - | 2.5 | 1.1 | - | - | - | - | - | - | - | - | 3.0 | 2.0 | 3.8 | 1.9 | - | - | 3.6 | 3.0 | - |
| NY150 (CU-PB) | 5.0 | 2.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.4 | 3.6 | - |
| NY150 (NE1031) | 5.0 | 3.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| NY151 | - | - | 4.1 | 3.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.5 | 3.7 | - |
| W5015-12 | - | - | - | - | 2.1 | 1.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| W6703-1Y YF2 | - | - | - | - | 4.7 | 4.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| W6703-5Y YF2 | - | - | - | - | 4.5 | 3.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| W8405-12 | - | - | - | - | - | - | - | 3.4 | 1.6 | - | - | - | - | - | - | - | - | - | - | 4.1 | 3.0 | - | - | - |
| W8886-3R | - | - | - | - | - | - | - | 2.6 | 2.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

¹Five tubers from each replicaton were peeled, dipped in a 0.5% sodium meta-bisulfite solution and cooked in an autoclave for 8-1/2 minutes at 350°F, followed by a 15 minute slow exhaust. After removal from the autoclave and cooling for 10 minutes at room temperature, the tubers were rated on a scale of 1 to 5, with 5 = no after-cooking darkening or sloughing, and 1 = severe after-cooking darkening or sloughing. A minimum score of 3 would normally be acceptable. These trials were stored at 50° F until the time of cooking, which was carried out between January 9 and January 13, 2013.

²BF = Blue Flesh; RF = Red Flesh; YF = Yellow Flesh (1-5 with 5 = darkest yellow color)

APPENDIX

STANDARD NE1031 RATING CODES FOR PLANT AND TUBER CHARACTERISTICS

(formerly Regional Projects NE184 and NE1014)

Tuber Skin Color

1. Purple
2. Red
3. Pink
4. Dark Brown
5. Brown
6. Tan/Light Brown
7. Buff
8. White
9. Cream

Tuber Skin Texture

1. Partial Russet
2. Heavy Russet
3. Moderate Russet
4. Light Russet
5. Netted
6. Slight Net
7. Moderately Smooth
8. Smooth
9. Very Smooth

Tuber Shape

1. Round
2. Mostly Round
3. Round to Oblong
4. Mostly Oblong
5. Oblong
6. Oblong to Long
7. Mostly Long
8. Long
9. Cylindrical

Tuber Cross-section

1. Very Flat
2. --
3. Flat
4. --
5. Intermediate/Oval
6. --
7. Mostly Round
8. --
9. Very Round

Tuber Appearance

1. Very Poor
2. --
3. Poor
4. --
5. Fair
6. --
7. Good
8. --
9. Excellent

Maturity at Vinekill

1. Completely Dead
2. --
3. Yellow and Dying
4. --
5. Moderately Mature
6. --
7. Starting to Mature
8. --
9. Green and Vigorous

Scab Type

P = Pitted
S = Surface
S/P = Mostly Surface
P/S = Mostly Pitted

Scab Rating

0 = None
1 = Trace, slight lesions or #
2 = Visible, up to 20% of tubers
3 = Moderate, 20 to 50% of tubers
4 = Bad, over 50% of tubers
5 = Very bad, on all tubers