

SUMMARY
of
VEGETABLE VARIETY TRIALS
FAIRBANKS, ALASKA
1978

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SUMMARY OF VEGETABLE VARIETY TRIALS FAIRBANKS, ALASKA, 1978

Introduction

This report summarizes the vegetable variety research evaluations of the Horticulture Department of the University of Alaska, Fairbanks, 1978. Variety trials were conducted at the Agricultural Experiment Station's research farm.

The objective of this research is to select varieties of vegetables that are adapted to this environment. It also identifies types whose adaptability may be improved through development of cultural techniques. The selection effort is directed at finding varieties useful to commercial and home garden growers.

Varieties are chosen for inclusion in the variety tests on the basis of their description, their latitude of origin, and the record of the plant-breeding program for producing kinds that have previously been found adapted. Standard recommended varieties are included for comparison.

In the past, the vegetable variety evaluation program has been responsible for a continuous improvement in yields, quality, and dependability for many vegetable crops. Our philosophy is to depend upon the many existing plant-breeding programs instead of investing in an expensive, on-site, plant-breeding program. Progress can be made more rapidly by selection than by breeding.

Growing-Season Summary

The 1978 growing season was quite different from the nine previous seasons we have experienced. Snow left the ground early and we were able to start planting earlier than normal, although not earlier than some of the previous nine years. The last ten days in May and the entire month of June were much colder than normal with a great deal of cloudy weather. It is normal for May and June to be mostly clear and this coupled with the longest daylength usually provides some of the best growing weather for a crop once it is established.

July was a good month in terms of temperatures for crop growth; as a result, most cool-season crops matured near their usual time. Temperatures during the month of August were above normal which allowed the growth of the warm-season crops to progress to near normal by the end of the month. Normally we do not expect September to contribute significantly to the growing season; however, this year we did not receive a killing frost on the farm until September 27, which gave us a growing season 3 weeks longer than usual. This season extension was significant for the late-planted crops and certain of the warm-season crops.

Soil-moisture deficiencies were apparent throughout the season. More supplemental irrigation was required than in previous seasons. Rainfall at the Fairbanks Experiment Station is shown in the following table (Table 1).

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Table 1: Rainfall by Month
During the 1978 Growing Season.

| Month | Inches |
|-----------|--------|
| May | 0.35 |
| June | 1.48 |
| July | 2.08 |
| August | 1.60 |
| September | 1.19 |
| TOTAL | 6.7 |

The soil temperatures of the various plots appeared to be near normal for most of the season. As usual, crop growth was greatly improved where soil temperature was improved.

The fertilization rate used for the various trials is probably a bit on the low side when compared to the rate which might be used by some commercial growers. Deficiency symptoms were noted for boron and molybdenum on several sites. Certain sites received broadcast applications of 1 lb/A boron and 0.8 lb/A molybdenum during the fall prior to planting. This treatment reduced evidence of deficiencies in these elements.

The following tables show our results including yields, maturity dates, and other useful characteristics and observations.

Table 2. Broccoli Variety Trial, Upland, Fairbanks, 1978.

| A.E.S. Accession # | Variety (transplants) | Source ^a | Spacing (plant/row) | First Harvest | Terminal \bar{x} wt (g) | Yield (lb/100') | Comments |
|--------------------|-----------------------|---------------------|---------------------|---------------|---------------------------|-----------------|---|
| 2199 | Green Duke | NK | 15"x3.3' | 7-10 | 699 | 112 | Very large late laterals, outstanding |
| 1836 | Regal | Hb | " | 7-10 | 626 | 105 | Variable quality, doesn't look like hybrid |
| 1765 | Green Umbrella | D | " | 7-10 | 576 | 97 | Good |
| 1854 | Green Dwarf | S | " | 7-10 | 556 | 93 | Dwarf plants with compact terminal, very nice laterals |
| 1792 | Gem | A | " | 7-13 | 520 | 87 | |
| 1856 | Dandy 1/25 | S | " | 7-10 | 483 | 81 | |
| 1816 | SGI | SG | " | 7-10 | 470 | 79 | |
| 1855 | Dandy Early | S | " | 7-13 | 467 | 78 | |
| 1896 | Green Comet | St | " | 7-13 | 440 | 74 | |
| 1793 | Futura | A | " | 7-10 | 401 | 67 | Very uniform in maturity (all terminals harvested same day) |
| 1817 | Southern Comet | SG | " | 7-10 | 401 | 67 | Better than Green Comet |
| 1269 | Premium Crop | AAS | " | 7-13 | 373 | 63 | |
| 1897 | Green Hornet | St | " | 7-10 | 346 | 58 | |
| 1766 | Green Globe | D | " | 7-10 | 330 | 55 | |

^a See Seed Sources list.

NOTE: Greenhouse-grown transplants 29 days old planted into the field May 18.

Fertilizer application: 1120 lb/A 10-20-10 applied prior to rototilling. The sulfate form of potassium was used in the mix. 1 lb/A B and .8 lb/A Mo also applied prior to rototilling.

Table 3. Cabbage Variety Trials, Upland, Fairbanks, 1978

| A.E.S. Accession # | Variety (transplants) | Source ^a | Spacing (plant/row) | First Harvest | Head \bar{x} Wt (g) | Yield (lb/100') | Average Core Length ^b Rating | Average Density Rating ^c | Comments |
|--------------------|-----------------------|---------------------|---------------------|---------------|-----------------------|-----------------|---|-------------------------------------|-------------------------|
| 1819 | Greyhound | SG | 12" X 3.3" | 7-20 | 620 | 139 | 2.2 | 3.2 | Pointed type |
| 1818 | Baby Early Red | SG | " | 8-10 | 1121 | 251 | 2.4 | 4.6 | |
| 1867 | Tokyo Pride | S | " | 7-31 | 1168 | 261 | 2.0 | 3.6 | Good red |
| 9354 | Ruby Ball | H | " | 8-08 | 1282 | 287 | 2.8 | 4.8 | |
| 1864 | Leo | S | " | 8-08 | 1338 | 299 | 4.4 | 3.0 | |
| 2037 | Meteor (red) | NK | " | 8-07 | 1349 | 302 | 3.1 | 4.4 | |
| 2142 | Savoy Ace | AAS | " | 8-07 | 1374 | 307 | 2.8 | 4.0 | Best savoy |
| 1865 | Chogo | S | " | 7-31 | 1378 | 308 | 3.2 | 4.0 | |
| 1698 | Wizard | NK | " | 8-07 | 1478 | 331 | 3.0 | 4.5 | Nice cabbage, good size |
| 1863 | Utopia | S | " | 8-10 | 1515 | 339 | 3.0 | 3.4 | |
| 1866 | Princess | S | " | 7-20 | 1651 | 369 | 3.6 | 3.2 | Disappointing |
| 3001 | Green Boy | NK | " | 8-10 | 1688 | 378 | 3.2 | 3.4 | |
| 1890 | Tastie | St | " | 7-31 | 1702 | 381 | 2.2 | 5.0 | Excellent, dependable |
| 2032 | Hybrid 15 | H | " | 8-07 | 1711 | 383 | 3.0 | 4.2 | |
| 2031 | Hybrid H | H | " | 8-29 | 1858 | 416 | 4.2 | 3.2 | No good Poor |
| 1891 | Red Head | St | " | 8-23 | 1900 | 425 | 3.6 | 3.8 | |
| 2163 | Great Bowling Ball | Hb | " | 8-23 | 2397 | 536 | 2.4 | 4.0 | Flavor excellent |
| 3000 | Hercules | NK | " | 8-23 | 2563 | 574 | 2.4 | 4.0 | |
| 2007 | Polaris | Ho | " | 8-23 | 2865 | 641 | 3.4 | 5.0 | Not Sampled |
| 2187 | Erin | Al | " | 8-23 | 2878 | 644 | 2.4 | 4.4 | |
| 6467 | Alaska 6467 | AC | 20" X 3.3' | 9-12 | 4357 | 585 | | | |

^a See Seed Sources List.

^b Core length rating involves an index wherein a core index of 1 is the shortest and most desirable and a core index of 5 is the longest, almost bursting through the head.

^c Density rating involves an index in which 1 is the least dense and 5 the most dense and most desirable.

NOTE: Greenhouse-grown transplants 29 days old planted into the field May 18.

Fertilizer application: 1120 lb/A 10-20-10 applied prior to rototilling. The sulfate form of potassium was used in the mix. 1 lb/A B and .8 lb/A Mo also applied prior to rototilling.

Table 4. Carrot Variety Trial, Bottomland, Fairbanks, 1978

| A.E.S. Accession # | Variety (seeded) | Source ^a | Spacing (plant/row) | First Harvest | Marketable Yield (lb/100') | Comments |
|--------------------|------------------------|---------------------|---------------------|---------------|----------------------------|--|
| 1206 | Nantes Special Long | St | 1/2 to 1" X 2' | 9-5 | 293 | Best market carrot |
| 1880 | Spartan Bonus | St | " | " | 269 | |
| 1323 | Des Dan | D | " | " | 260 | |
| 1693 | Gold King | NK | " | " | 246 | Flavor very nice, carrots very large |
| 1764 | Spartan Winner | C | " | " | 243 | |
| 1881 | Royal Chantenay | St | " | " | 236 | |
| 2030 | Scarlet Nantes | H | " | " | 231 | |
| 1762 | Spartan Deluxe | C | " | " | 224 | |
| 1759 | Spartan Fancy | C | " | " | 215 | |
| 1879 | Spartan Sweet Improved | St | " | " | 211 | |
| 1760 | Spartan Premium | C | " | " | 178 | |
| 1763 | Spartan Classic | C | " | " | 173 | |
| 1160 | Caramba | SG | " | " | 168 | Coreless Amsterdam type, brittle & sweet |
| 1760 | Spartan Delite | C | " | " | 141 | |

^a See Seed Sources List.

NOTE: Carrots were seeded into the ground May 11 in rows spaced 2 feet apart.

Fertilizer application: 1120 lb/A 10-20-10 applied prior to rototilling. The sulfate form of potassium was used in the mix.

Table 5. Cauliflower Variety Trials, Upland, Fairbanks, 1978

| A.E.S. Accession # | Variety (transplants) | Source ^a | Spacing (plant/row) | First Harvest | Head \bar{x} Wt (g) | Yield lb/100' | Comments |
|--------------------|-----------------------|---------------------|---------------------|---------------|-----------------------|---------------|-----------------------------------|
| 1899 | Dominant | St | 15" X 3.3' | 7-31 | 863 | 145 | Large plants, good wrapper leaves |
| 1860 | Christmas White | S | " | 7-31 | 818 | 137 | |
| 1820 | SGI | SG | " | 8-03 | 772 | 130 | |
| 3009 | Grandessa | J | " | 8-03 | 588 | 97 | |
| 1900 | Extra Early Snowball | St | " | 7-18 | 551 | 92 | |
| 1898 | Snow Crown | St | " | 7-18 | 519 | 87 | |
| 2041 | Super Snowball | NK | " | 7-18 | 483 | 81 | |
| 1767 | Snowball T-2 | D | " | 7-13 | 480 | 80 | |
| 1858 | White Contessa | S | " | | | | Buttoned |
| 1859 | White Baron | S | " | | | | Buttoned |

^a See Seed Sources List.

NOTE: Greenhouse-grown transplants 29 days old planted into the field May 18.

Fertilizer application: 1120 lb/A 10-20-10 applied prior to rototilling. The sulfate form of potassium was used in the mix. 1 lb/A B and .8 lb/A Mo also applied prior to rototilling.

Table 6. Cucumber Variety Trials, Upland, Fairbanks, 1978

| A.E.S. Accession # | Variety (transplants) | Source ^a | Spacing (plant/row) | First Harvest | Yield (g/plant) | Yield (lb/100') | Comments |
|--------------------|-----------------------|---------------------|---------------------|---------------|-----------------|-----------------|--|
| 2143 | Saladin | AAS | 2.5' X 5' | 8-03 | 10640 | 955 | Black spine, pickler |
| 2048 | Early Surecrop | NK | " | 8-07 | 10532 | 943 | White spine, slicer, large fruit |
| 2184 | Morden Early | Al | " | 7-31 | 7990 | 715 | Black spine, pickler, very small fruit |
| 2144 | Liberty | AAS | " | 7-31 | 7627 | 683 | Black spine, pickler |
| 1889 | LaReine | St | " | 8-03 | 6810 | 610 | European (long), gynoecious (usually greenhouse) |
| 1885 | Double Yield Pickling | St | " | 8-03 | 6538 | 585 | Black spine, pickler |
| 1821 | Levo | SG | " | 7-31 | 6220 | 557 | Spineless (fuzzy), pickler type |
| 1210 | Victory | St | " | 8-03 | 5266 | 471 | White spine, slicer |
| 1822 | Florino | SG | " | 7-31 | 5266 | 471 | Spineless (fuzzy), pickler type |
| | Femdan | | " | 8-10 | 5084 | 455 | European (long), gynoecious (usually greenhouse) |
| 2033 | Pacer | H | " | 8-03 | 5039 | 451 | White spine, slicer |
| 1888 | Toska 70 | St | " | 8-03 | 4676 | 419 | European (long), gynoecious (usually greenhouse) |

^a See Seed Sources List.

NOTE: Greenhouse-grown transplants 36 days old planted into the field June 7. Plants were grown through 1.5-mil. clear polyethylene.

Fertilizer application: 1120 lb/A 10-20-10.

Table 7. Lettuce Variety Trials, Bottomland, Fairbanks, 1978

| A.E.S. Accession # | Variety (seeded) | Source ^a | Spacing (plant/row) | First Harvest | Head \bar{x} Wt (g) | Yield lb/100' | Average Core Length ^b Rating | Average Density Rating ^c | Comments |
|-----------------------|---------------------|---------------------|------------------------|------------------|--------------------------|------------------|--|---|---|
| HEAD LETTUCE | | | | | | | | | |
| 1944 | Calmaria | H | 1' X 2' | 7-28 | 732 | 161 | 1.1 | 2.5 | Unattractive |
| 1339 | Premier Great Lakes | D | " | 7-28 | 706 | 156 | 1.0 | 2.3 | Many with severe tipburn |
| 1780 | Great Lakes 659 | A | " | 7-28 | 655 | 144 | 1.0 | 2.5 | Some tipburn |
| 2022 | Ithaca | H | " | 7-28 | 629 | 139 | 1.0 | 2.8 | No tipburn, good quality, flavor |
| 2021 | Fairton | H | " | 7-28 | 615 | 135 | 1.0 | 2.9 | No tipburn |
| 1882 | Minilake | St | " | 7-24 | 560 | 123 | 1.0 | 3.0 | Slight tipburn on later harvested plants, good quality and flavor |
| 2023 | Minetto | H | " | 7-24 | 389 | 86 | 1.0 | 2.8 | Some with severe tipburn |
| 1775 | Dessert Gem | D | " | -- | -- | -- | | | Tipburn too severe for evaluation |
| 1852 | Queen Crown | S | " | -- | -- | -- | | | " |
| 1850 | King Crown | S | " | -- | -- | -- | | | " |
| 3007 | Great Lakes "B" | J | " | -- | -- | -- | | | " |
| 1713 | Ballerina | T&M | " | 7-28 | 495 | 109 | 1.0 | 3.4 | Good quality, needs fur- ther evaluation |
| BUTTER LETTUCE | | | | | | | | | |
| 1791 | Citation | A | 1' X 2' | 7-17 | 330 | 73 | | | Does not hold well in field |
| 1802 | Market Favorite | OE | " | 7-17 | 287 | 63 | | | Does not hold well in field |

| | | | | | | | |
|--------------|----------------------|----|---------|------|-----|-----|----------------------------------|
| 1884 | Ostinata | St | 8" X 2' | 7-17 | 257 | 85 | No tipburn, stands well in field |
| 3027 | Buttercrunch | St | " | -- | -- | -- | Tipburn too severe for harvest |
| 1343 | Little Gem | As | " | 7-17 | 183 | 60 | Slight tipburn |
| 2025 | Tania | H | " | 7-17 | 226 | 75 | Slight tipburn |
| LEAF LETTUCE | | | | | | | |
| 1774 | Red Salad Bowl | D | 8" X 2' | 7-17 | 277 | 92 | Slight tipburn |
| 1888 | Domineer | St | " | 7-17 | 303 | 100 | Slight tipburn |
| 2024 | Salad Bowl | H | " | 7-17 | 220 | 73 | No tipburn |
| 1406 | Black-Seeded Simpson | NK | " | 7-17 | 398 | 131 | Moderate tipburn |
| 1407 | Prize Head | NK | " | 7-17 | 260 | 86 | No tipburn - very nice |
| 1405 | Oak Leaf | NK | " | 7-17 | 251 | 83 | Slight tipburn |
| COS LETTUCE | | | | | | | |
| 1772 | Dark Green Cos | D | 1' X 2' | 7-17 | 445 | 98 | Slight tipburn, still best cos |
| 1285 | Sweet Midget Cos | F | 8" X 2' | 7-28 | 234 | 77 | Similar to Little Gem |

^a See Seed Sources List.

^b Core length rating involves an index wherein a core of 1 is the shortest and most desirable and a core index of 5 is the longest, almost bursting through the head.

^c Density rating involves an index in which 1 is the least dense and 5 the most dense and most desirable.

NOTE: Varieties were seeded into the field May 11.

Fertilizer application: 1120 lb/A 10-20-10 applied prior to rototilling. The sulfate form of potassium was used in the mix. 1 lb/A B and .8 lb/A Mo also applied prior to rototilling.

Table 8. Green Pea Variety Trials, 1978

| A.E.S. Accession # | Variety (seeded) | Location | Source ^a | Block Size | First Harvest | Yield/plot \bar{x} wt (g) | Yield (lb/100') | Comments |
|--------------------|------------------|------------|---------------------|------------|---------------|-----------------------------|-----------------|-----------------|
| 1974 | Early Frosty | Upland | B | 5' x 8' | 7-21 | 4805 | 26 (in shell) | |
| 1973 | Green Arrow | Upland | B | " | 7-27 | 6090 | 34 " " | Outstanding |
| 2191 | Sparkle | Upland | Ho | " | 7-21 | 4685 | 26 " " | |
| 3013 | Oregon Sugarpod | Upland | J | 2' x 30' | 7-12 | 11,100 | 41 " " | Edible-pod type |
| 2191 | Sparkle | Bottomland | Ho | 3' x 10' | 7-31 | 6860 | 50 " " | |
| 603 | Green Arrow | Bottomland | B | 3' x 10' | 8-03 | 8570 | 63 " " | Outstanding |

^a See Seed Sources list.

NOTE: Peas were seeded in upland plots May 5. Peas were seeded in bottomland plots May 18.

Fertilizer application: 1200 lb/A 10-20-10 for upland plots and 1120 lb/A 10-20-10 for bottomland plots.

Table 9. Potato Variety Trials, Bottomland, 1978

| Variety | Soil | Spacing (plant/row) | Harvested | US #1 Yield (T/A) | US #1 Yield (lb/100') | Comments |
|---------------|------|------------------------|-----------|----------------------|--------------------------|--|
| Rote Erstling | peat | 1' x 3.3' | 9-04 | 23.3 | 348 | Red, tough skin |
| Rote Erstling | silt | " | 9-04 | 3.5 | 52 | |
| Kennebec | peat | " | 9-04 | 25.7 | 384 | Some blackleg present (seed from S.D.), tender skin |
| Kennebec | silt | " | 9-04 | 7.8 | 116 | |
| Swedish | peat | " | 9-04 | 8.6 | 128 | Home-garden type |
| Swedish | silt | " | 9-04 | 5.9 | 88 | |
| Alaska 114 | peat | " | 9-04 | 22.9 | 342 | Even size, tough skin |
| Alaska 114 | silt | " | 9-04 | 8.2 | 122 | |
| Bake King | peat | " | 9-04 | 23.6 | 352 | |
| Bake King | silt | " | 9-04 | 3.4 | 50 | |
| Emmet | peat | " | 9-04 | 20.6 | 308 | |
| Emmet | silt | " | 9-04 | 5.1 | 76 | |

NOTE: Potatoes were planted May 15.

Fertilizer application: 1120 lb/A 10-20-10 for both soils. The peat soil had approximately 1000 yd³/A peat applied to the plots and thoroughly rototilled into the existing soil. The pH of the peat-amended soil was 4.9 while the unamended soil was 6.3. Severe potassium-deficiency symptoms were noted on the plots not amended with peat.

Table 10. Winter Squash Variety Trials, Upland, 1978

| A.E.S. Accession # | Variety | Source ^a | Spacing | Harvest | Yield (kg/plant) | Yield (lb/100') | Comments |
|-----------------------|-----------------|---------------------|---------|---------|---------------------|--------------------|---|
| 1678 | Boston Marrow | H | 6.5' | 9-06 | 33.5 | 1128 | Large fruits, 15 lb average, good quality |
| 2138 | Show King | V | " | 9-06 | 26.1 | 876 | Very large fruits, 46 lb average (one was 79 lbs) |
| 2018 | Faribo Hybrid R | F | " | 9-06 | 17.1 | 576 | Orange, excellent quality |
| 2150 | Sweet Mama | AAS | 5' | 9-06 | 12.6 | 564 | Dark green, high quality |
| 2029 | Buttercup | H | " | 9-06 | 12.3 | 553 | Dark green, excellent quality |
| | Butterbar | ? | " | 9-06 | 11.2 | 504 | Orange, no good |
| 1740 | Little Gem | V | " | 9-06 | 10.8 | 483 | Orange, high quality |
| 1914 | Perfection | St | " | 9-06 | 10.9 | 488 | Dark green |
| 1868 | Butterball | S | " | 9-06 | 4.9 | 219 | Grey-green |
| 2016 | Emerald | F | 3.3' | 9-06 | 3.8 | 256 | Dark green |
| 2017 | Baby Butternut | F | 5' | 9-06 | --- | --- | Female flowers too late |
| 2149 | Early Butternut | AAS | " | 9-06 | --- | --- | Female flowers too late |
| 1073 | Gold Nugget | L | 4' | 9-06 | 6.8 | 366 | Small orange fruits, good quality |
| 1988 | Butterbush | B | 3.3' | | --- | --- | Female flowers too late |

^a See Seed Sources List.

NOTE: Greenhouse-grown transplants 30 days old planted into the field June 5. Plants were grown through 1.5-mil, clear polyethylene.

Fertilizer application: 1120 lb/A 10-20-10.

Table 11. Summer Squash Variety Trials, Upland, 1978

| A.E.S. Accession # | Variety | Source ^a | Spacing (plant/row) | First Harvest | Yield (g/plant) | Yield (lb/100') | Comments |
|--------------------|---------------------|---------------------|---------------------|---------------|-----------------|-----------------|---|
| 2078 | Black Eagle | NK | 3.3' X 6.5' | 7-14 | 18,189 | 1222 | All good zucchinis |
| 1224 | Zucchini Select | St | " | 7-14 | 17,871 | 1201 | |
| 1439 | President | Ho | " | 7-14 | 16,738 | 1125 | |
| 2077 | Black Zucchini | NK | " | 7-17 | 16,556 | 1112 | Early fruit poor, midseason and late ones very nice |
| 3046 | Greyzini | St | " | 7-14 | 13,925 | 936 | Striped, nice flavor |
| 2004 | Sundance | Ho | " | 7-17 | 11,884 | 799 | Yellow crookneck, resists botrytis late in season, excellent, but poor for shipping (neck too long) |
| 2148 | Scallopini | AAS | " | 7-17 | 8,704 | 542 | Yield drops off midseason |
| 1397 | Seneca Prolific | NK | " | 7-14 | 7,503 | 506 | Subject to botrytis late in season |
| 1768 | Golden Bush Scallop | D | " | 8-14 | 1,769 | 119 | Female flowers very late |

^a See Seed Sources list.

NOTE: Greenhouse-grown transplants 3 weeks old planted into the field May 5. Plants were grown through 1.5-mil, clear polyethylene.

Fertilizer application: 1120 lb/A 10-20-10.

Table 12. Snapbean Variety Trials, Upland, 1978

| A.E.S. Accession # | Variety | Source ^a | First Harvest | Yield (lb/100') | Comments |
|-----------------------|----------------------|---------------------|------------------|--------------------|--|
| 1918 | Contender | St | 8-07 | 60 | Received more moisture |
| 1916 | Provider | St | 8-07 | 52 | |
| 1920 | Honey Gold | St | 8-10 | 48 | More disease resistant than Gold Crop, best gold Size decreases rapidly after first picking |
| 1434 | Gold Crop | Ho | 8-10 | 39 | |
| 1972 | BBL 47 | A | 8-15 | 39 | Possibly poor processor, attractive pods |
| 1917 | Spartan Arrow | St | 8-07 | 39 | |
| 1968 | BBL Advance | A | 8-15 | 37 | Attractive pods, nice raw |
| 2015 | Salem Blue Lake | F | 8-07 | 34 | |
| 2020 | Green Ruler | H | 8-07 | 31 | Flat podded |
| 1364 | Gina | A | 8-07 | 25 | |
| 1967 | BBL 92 | A | 8-15 | 24 | Flat podded |
| 1969 | Checkmate | A | 8-15 | 21 | |
| 1976 | Roma | B | 8-10 | 21 | Flat podded |
| 1970 | BBL Rio | A | 8-15 | 21 | |
| 1966 | BBL 94 | A | 8-15 | 18 | Purple pods, stringy |
| 1975 | Royal Burgundy | B | 8-15 | 16 | |
| 1977 | Rustproof Golden Wax | B | 8-15 | 14 | Quality poor |
| 1971 | Eagle | A | 8-15 | 9 | |
| 1915 | Bush Romano | St | -- | | Probably dry, usually does much better Too late to harvest |
| 1965 | Gaelic | A | -- | | |
| 2117 | Earlipol | F | -- | | Very dwarf plant, yield poor Too late to harvest |

^a See Seed Sources list.

NOTE: Snapbean varieties were seeded May 18, in blocks of 5 rows spaced 1' apart. The center 3 rows were used for yield records.

Fertilizer application: 1120 lb/A 10-20-10.

Table 13. Pepper Variety Trials, Upland, 1978

| A.E.S. Accession # | Variety | Source | Spacing | First Harvest | Yield (g/plant) | Yield (lb/100') | Comments |
|-----------------------|--------------------|--------|---------|------------------|--------------------|--------------------|-------------------------------------|
| 1806 | Pekana | OE | 1.6' | 9-01 | 740 | 99 | Many fruits wrinkled, poorly shaped |
| 1986 | Burpee Fordhook | B | " | 9-01 | 698 | 94 | Blocky shape, thick walls |
| 1987 | New Ace | B | " | 9-01 | 686 | 92 | Elongate fruit |
| 2009 | Morgold | F | " | 9-01 | 430 | 58 | Fruits susceptible to disease |
| 2068 | Hungarian Wax Hot | NK | " | 9-01 | 320 | 43 | |
| 1562 | All Big | G | " | 9-01 | 330 | 44 | Good quality |
| 1219 | Earliest Red Sweet | St | " | 9-08 | 308 | 41 | |
| 2066 | Anaheim (hot) | NK | " | 9-01 | 268 | 36 | |
| 1805 | Pedro | OE | " | 8-31 | 650 | 87 | |

NOTE: Greenhouse-grown plants 60 days old planted into the field June 7. Plants were grown through 1.5-mil, clear polyethylene.

Fertilizer application: 1120 lb/A 10-20-10.

Table 14. Tomato Variety Trials, Upland, 1978

| A.E.S. Accession # | Variety (ripe) | Source ^a | Spacing | First Harvest | Yield g/plant | Yield lb/100' row | Comments |
|--------------------|--------------------|---------------------|---------|---------------|---------------|-------------------|---|
| 1810 | Sleaford Abundance | Sh | 2.5' | 8-03 | 1347 | 120 | Small fruits, nice quality, early |
| | Sub-Arctic 25 | NL | " | 7-13 | 1318 | 118 | |
| 1904 | Rocket | St | " | 7-20 | 993 | 89 | Poor quality |
| 1811 | Hardicross | Sh | " | 8-03 | 897 | 80 | Nice quality, medium size* |
| 1808 | Doton | OE | " | 8-03 | 695 | 62 | Attractive fruits, nice size, high quality* |
| 1737 | Early Temptation | V | " | 7-25 | 543 | 49 | |
| 1184 | Sub-Arctic Plenty | L | " | 7-25 | 513 | 46 | Small fruits |
| 1826 | Luca | SG | " | 8-03 | 453 | 41 | Attractive fruits, nice size, high quality* |
| 8383 | Early Tanana | P | " | 7-13 | 405 | 36 | Not typical, yield and quality usually higher |
| 2151 | Floramerica | AAS | " | 8-03 | 101 | 9 | Much green fruit, some very large (670 g)* |
| 2019 | Hybrid EE | F | " | 9-11 | 46 | 4 | |
| 1905 | Gardener | St | " | --- | --- | --- | * |

^a See Seed Sources List.

NOTE: Greenhouse-grown transplants 60 days old planted into the field June 5. Plants were grown through 1.5-mil, clear polyethylene.

Fertilizer application: 1120 lb/A 10-20-10.

* Ripens well indoors (picked green).

Table 15. Sweet Corn Variety Trials, Upland, 1978

| A.E.S. Accession # | Variety | Source | Spacing (plant/row) | First Harvest | Yield lb/100' row | Comments |
|--------------------|-----------------------|--------|---------------------|---------------|-------------------|---|
| 2194 | Onthyb 742 | O | 1' X 5' | 8-28 | 294 (420 ears) | Bicolor, good flavor |
| 2166 | Morden 71112 | M | " | 8-17 | 275 (392 ears) | Very sweet, attractive large ears, holds well |
| 1479 | Earliking | NK | " | 8-23 | 274 (348 ears) | Good, as usual |
| 1840 | Early Golden Giant | Ho | " | 8-23 | 255 (300 ears) | Flavor fair, large ears |
| 2165 | Morden 71276 | M | " | 8-28 | 251 (328 ears) | Also good, holds well |
| 1923 | Earlivee | St | " | 8-17 | 233 (352 ears) | Flavor outstanding, best quality |
| 2193 | Onthyb 741 | O | " | 8-23 | 232 (324 ears) | Bicolor, juicy |
| 1232 | Golden Miniature | St | " | 8-17 | 200 (440 ears) | Small ears, flavor excellent |
| 1758 | Northernvee | C | " | 8-13 | 175 (288 ears) | Ears irregular, acceptable for early corn |
| 1921 | Polarvee | St | " | 8-09 | 165 (296 ears) | Poor quality |
| 514 | Yukon Chief | Ak | " | 8-09 | 120 (372 ears) | Missed harvest date - was ready earlier |
| 1922 | Seneca 60 | St | " | 8-23 | 58 (84 ears) | Cobs bisexual, very poor |
| 2190 | Amazing Early Alberta | Al | " | 8-02 | 29 (88 ears) | Flintcorn, some saved to mature |

NOTE: Sweet corn varieties were seeded May 2 and covered with 1.5-mil, clear polyethylene. The plants were allowed to emerge and were not let out from beneath the plastic until approximately 4" tall.

Fertilizer applicaton: 1324 lb/A 10-20-10.

Table 16. Pumpkin Variety Trials, Upland, 1978

| A.E.S. Accession # | Variety | Source | Spacing | Harvest | Yield (kg/plant) | Yield (lb/100') | Comments |
|-----------------------|-------------------|--------|---------|---------|---------------------|--------------------|--------------------------|
| 1077 | Connecticut Field | L | 6.5' | 9-6 | 34 | 1140 | |
| 2012 | Tricky Jack | F | 4' | 9-6 | --- | --- | Small type, 3 ripe, 9-6 |
| 2147 | Spirit | AAS | " | 9-6 | --- | --- | Medium size, 6 ripe, 9-6 |
| 1680 | Jackpot | H | " | 9-6 | --- | --- | Medium size, 4 ripe, 9-6 |

NOTE: Greenhouse-grown transplants 30 days old planted into the field June 5. Plants were grown through 1.5-mil, clear polyethylene.

Fertilizer application: 1120 lb/A 10-20-10.

Miscellaneous Vegetables Tested

| Crop | Source | Comment |
|---------------------------|--------|---|
| Dry Beans | | |
| #1125 Dwarf Horticultural | B | Good yield of dry beans |
| #3012 Jacob's Cattle | J | Yield 1/2 lb. from 25' row |
| #1136 Soldier | J | Yield 1/2 lb. from 25' row |
| #2085 Sanilac (Navy bean) | NK | Did not mature |
| Spinach | | |
| #3038 Melody | St | Still best spinach |
| #1789 Grandstand | A | Bolts earlier than Melody |
| Chard | | |
| #2081 Rhubarb | Nk | Very attractive, smaller than white types |
| #1906 White King | St | Bolted early |
| #1984 Lucullus | B | Large size, holds well |
| #1798 Rex | OE | Very nice, large, dark green |
| #1799 Dorat | OE | Very nice, large |
| #1797 Akta | OE | Leaves too pale |
| Greens | | |
| #2043 Kai Choy | NK | Bolted |
| #2044 Pak Choy | NK | <u>Very</u> nice, holds well |
| #3010 Taisai | J | Bolted |
| #2064 Tendergreen | NK | Good mustard |
| Rutabagas | | |
| #2074 American Purple Top | NK | Good for storage |
| #2014 Red Chief | F | Needs further testing |
| Beets | | |
| #586 Cylindra | B | Long type, resists bolting |
| #1981 Burpee Golden | B | High quality |
| #1908 Little Egypt | St | Good round beet |
| #1815 Uniball | SG | Equal in quality to Little Egypt |
| #1909 Little Mini | St | Equal in quality to Little Egypt |
| Brussels Sprouts | | |
| #1558 Jade Cross | G | Still the best |
| #1794 Early Dwarf | OE | Small plants, low yield |
| #1857 Green Marvel | S | No good—plant forms laterals |

Miscellaneous Vegetables Tested—Continued

| Crop | Source | Comment |
|------------------------------|--------|-------------------------------------|
| Chinese Cabbage | | |
| #1878 Round-Leaved Santo | S | Nonheading type, bolted |
| #862 Spring A-1 | J | Best Chinese cabbage, plant late |
| Kohlrabi | | |
| #2058 Early Purple Vienna | NK | Standard variety |
| #2059 Early White Vienna | NK | Standard variety |
| #2145 Grand Duke | AAS | Very nice—earlier |
| #1983 Primo | B | Good |
| #1823 White Prague | SG | Similar to White Vienna |
| #3005 White Danish | J | Similar to White Vienna |
| #3006 Blue Danish | J | Similar to Purple Vienna |
| Radish | | |
| #3031 Burpee White | St | Holds longest without bolting |
| #2073 French Breakfast | NK | Poor this year—pithy |
| #3030 Cherry Belle | St | Good, but doesn't hold |
| Turnip | | |
| #3028 Tokyo Cross | St | Use for small turnips; high quality |
| #2083 Purple Top White Globe | NK | Better for storage turnips |
| #1849 Tokyo Top | S | Holds longer than Tokyo Cross |
| #1848 Market Express | S | Bolted |

Seed Sources

- A Asgrow Seed Co., Subsidiary of the Upjohn Co., Kalamazoo, MI 49001
AAS All-America Selections, 4546 El Camino Real, Suite A, Los Alto, CA 94022
AC Alf Christianson Seed Co., Mt. Vernon, WA 98273
Ak Agricultural Experiment Station, University of Alaska, Fairbanks, AK 99701
Al Alberta Nurseries and Seeds, Ltd., Bowden, Alberta TOM OKO
As Asmer Seeds, Asmer House, Ash Street, Leicester, England LE5 0DD
B W. Atlee Burpee Co., Riverside, CA 92502
C Crookham Co., P.O. Box 520, Caldwell, ID 83605
D Dessert Seed Co., P.O. Box 181, El Centro, CA 92243
F Farmer Seed and Nursery Co., Faribault, MN 55021
G H. G. German Seeds, Inc., Box N, Smethport, PA 16749
H Harris Seeds, Inc., Moreton Farms, Rochester, NY 14614
Hb Herbst Bros., Seedsmen, Inc., 1000 N. Main St., Brewster, NY 10509
Ho R. L. Holmes Seed Co., 2125 - 46 St., N.W., Canton, OH 44709
J Johnny's Selected Seeds, Albion, ME 04910
L Lowden's Better Plants and Seeds, Box 10, Ancaster, Ont., L9G 3L3
M Morden Research Station, P.O. Box 3001, Morden, Manitoba, ROG 1J0
NK Northrup King & Co., 1500 Jackson St., N.E., Minneapolis, MN 55413
NL Northern Lights Garden Center, 1600 College Rd., Fairbanks, AK 99701
OE Ohlsens-Enke, NY Munkegaard, Copenhagen-Toastrup, Denmark
O Horticultural Experiment Station, Box 587, Simcoe, Ontario, N3Y 4N5
P Petoseed Co., Inc., P.O. Box 4206, Saticoy, CA 93003
S Sakata Seed Co., 2 Kiribatake, Kanagawa-KV, Yokohama, Japan
SG Sluis & Groot of America, 124 A Griffin St., Salinas, CA 93901
Sh Charles Sharpe, Sleaford, Lincolnshire, England
St Stokes Seeds, Inc., 5008 Stokes Bldg., Buffalo, NY 14240
T&M Thompson & Morgan, Inc., P.O. Box 24, 401 Kennedy Blvd., Somerdale, NJ 08083
V Vesey's Seeds Ltd., York, P.E.I.