



**North Dakota
Home Garden
Variety Trials
*2010 Results***

NDSU
Extension Service

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Chapter 1

Introduction

The Need for Better Research

The first step in growing a successful garden is to select a superior variety.

Gardeners who sow a **superior** variety can grow plants that will yield abundantly, resist diseases, and produce quality food. In contrast, gardeners who sow an **inferior** variety are headed for frustrations. No matter how hard they work in preparing the soil, watering and weeding, they may have disappointing results.

The benefits of selecting superior varieties for gardens are great. The National Gardening Association (NGA) estimates approximately one-third of households in North Dakota grow a vegetable garden.¹ Thus, there are approximately 86,000 households in North Dakota with vegetable gardens.

There are significant economic benefits to gardening. A national study by the NGA showed the average family with a vegetable garden spends \$70 on it and grows an estimated \$600 worth of vegetables.² Using this information, families in North Dakota reap a profit of approximately \$45.6 million per year in their gardens.

There is an important public health dimension to gardening. Vegetables and fruits are nature's richest source of micronutrients, minerals, and dietary fiber. A diet rich in vegetables and fruits is associated with a decreased risk of obesity and certain chronic diseases such as cardiovascular disease, diabetes, and some cancers. Nevertheless, only 11 percent of adults eat enough vegetables and fruits for a healthy diet.³ We need to eat more vegetables—growing a productive garden can obviously help with this.

Very little vegetable research is conducted at research stations in North Dakota. These few plots pro-

vide some insight into the characteristics of a variety, but they do not test varieties under actual gardening conditions. The environment at a field research station is dramatically different than at a home garden.

- The soils at field research stations are similar to soils at a farm, that is, relatively fertile and undisturbed. Soils in a backyard garden have been highly disturbed from home construction and land grading activities, and are intensively managed.
- Trials at research stations utilize tractors, large-scale irrigation equipment, and herbicides. Backyard gardeners use shovels, hoes (maybe a rototiller), garden hoses, and watering cans.
- Trials conducted at research stations are out in full sun. Many home gardens have shade for at least part of the day.

The Bottom Line

To identify superior varieties for **home gardeners**, it makes sense to determine which varieties perform best in **home gardens** under the management of **home gardeners**.

Objectives

This program has three major objectives:

1. Home gardeners will identify superior varieties of vegetables.
2. Home gardeners will become more aware of new varieties and differences among varieties. This increased level of awareness will affect the way they select vegetable varieties in the future.
3. Partnerships between local families and North Dakota State University will be strengthened.

Selecting Varieties to be Tested

Seed catalogs are carefully studied to identify varieties that are widely available and appear promising for North Dakota. In many situations, a promising new variety is compared with a variety that is widely grown in the state. In 2010, 53 trials were established.

¹ National Gardening Association. 2008. Personal communication with Bruce Butterfield, Market Research Director.

² Templin, N. (2008, April 16). How much green can growing a vegetable garden save you? *Wall Street Journal*. <www.wallstreetjournal.com>

³ Elsevier Health Sciences (2007, March 19). Americans still not eating enough fruits and vegetables, according to studies. *Science Daily*. <www.sciencedaily.com>.

Preparation of Seed Packets

Seeds are ordered in bulk from seed companies. Seeds are packaged in coin envelopes. Adhesive labels that contain planting instructions (variety name, vegetable type, time to plant, and recommended spacing for sowing and thinning) are affixed on each seed packet. Untreated seed is used.

Distribution of Seeds and Supplies

This program is promoted by NDSU Extension Service faculty and staff across the state. Information is also available at the web site <www.dakotagardener.com>. Interested gardeners in Spring 2010 were allowed to participate in up to five trials. The fee was \$1 per trial along with \$2.50 for handling and postage. Any interested child was allowed to receive seeds of one trial for free.

In all cases, gardeners sign a pledge before receiving seeds, promising to do all they can to evaluate the varieties fairly.

Besides seeds, growers also receive row labels to mark rows, and a string to help them lay out the 10-foot-long plots. Gardeners receive simple, yet detailed instructions on laying out their plots (Appendix 1). We encourage a 10-foot plot length to be minimal at getting quality data.

Gardeners are responsible for managing their crops. This includes fertilizing, watering, mulching, and using pesticides. They are encouraged to use their own gardening practices so the varieties are tested under actual home garden conditions.

Quantity and Quality of Participation

In 2010, over 200 households submitted results from their trials (this accounts for approximately 75% of households who received seeds). Results from approximately 830 research trials were submitted. Data were obtained in 46 of the state's 53 counties (Figure 2). No other program in the USA can match this program for its scope of participation and number of varieties tested.

A pleasant finding of this program was the quality of research conducted by home gardeners. These families demonstrated extraordinary enthusiasm in this project. Besides carefully filling out report forms, they often wrote detailed letters on their trials.

Weather in 2010

The growing season of 2010 will be remembered as a good one for most of the state's gardeners. The rainfall was regular, the temperatures were near normal, the

growing season was long, and extreme weather-related events were rare.

Spring was very pleasant with few surprises. Temperatures were warm in April and the spring rains were regular (Figure 1). There were no freak snowfalls. Many gardeners experienced their last killing frost around May 8–10 (near normal). The far eastern part of the state received their last killing frost in mid April (about two weeks earlier than normal).

Temperatures stayed normal throughout the summer. Rainfall was extremely favorable in most areas.

Above average rains continued throughout the summer until in October, when the climate became unusually warm and dry.

Light snow fell in the western half of the state on September 17, but most gardeners in that region did not experience a killing frost until the first week of October (about one week later than normal). Much of the eastern part of the state avoided a killing frost until mid to late October (again, about one week later than normal).

Compiling the Data

Gardeners compared the two varieties in each trial for a series of traits, which included germination rate, plant health, earliness, yield, and quality of harvested product. We asked them if they would recommend the varieties to other gardeners and which of the two varieties they preferred (Appendix 2). Comments were strongly encouraged.

Comments of growers regarding their taste preferences of the vegetables are a noteworthy bonus of this grass-roots research approach.

Approximately 5% of the reports showed data with inconsistencies; these reports were eliminated from the final analysis.

A selection of representative comments of gardeners on each variety is included in this report. In multi-year trials, emphasis was placed on comments from 2010. Reports of previous years are available on-line to see more comments of growers from previous years.

Reporting the Final Results

The final results are reported to interested seed companies and NDSU educators. Newspaper columns are written to report findings and public presentations are made to garden clubs and University faculty. Participating gardeners receive a summary of the results (see page 4) and a certificate to recognize their participation in the program.

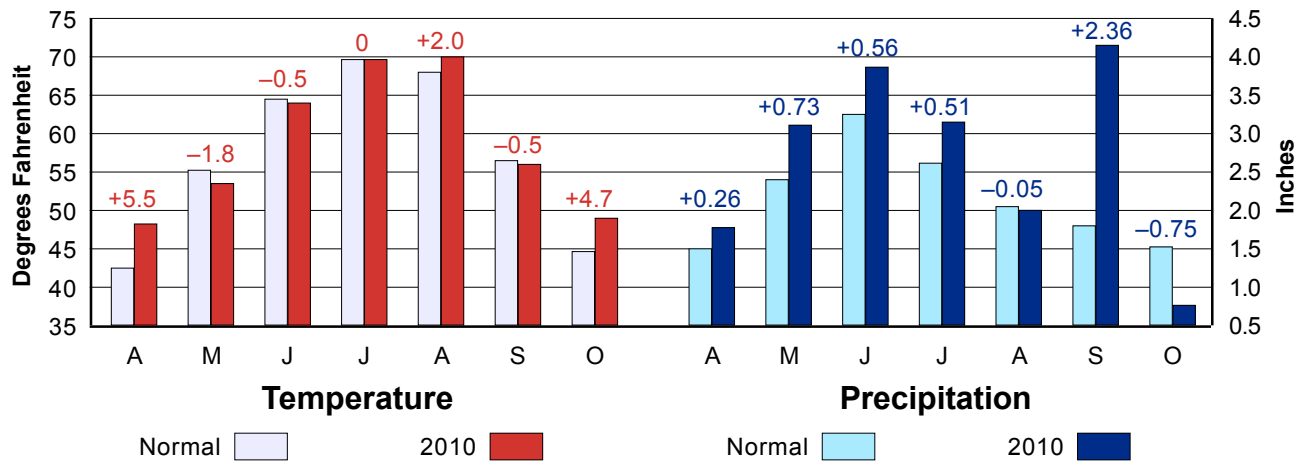


Figure 1. Composite mean monthly air temperatures and precipitation amounts in 2010 and normal (1971–2009) years for key locations (Fargo, Mandan, Minot, and Dickinson) scattered across the state. Source: North Dakota Agriculture Weather Network.

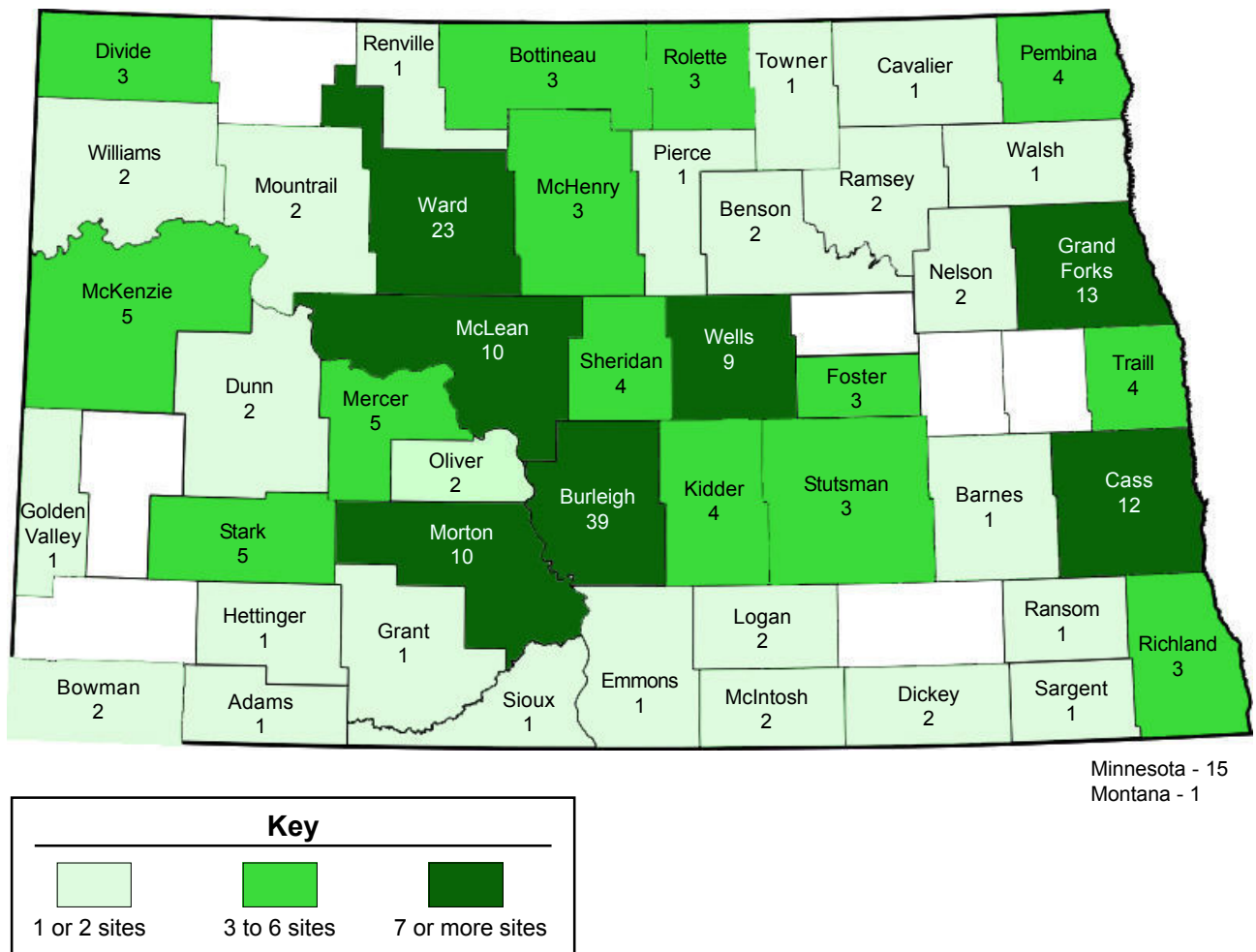


Figure 2. Sites where garden results were reported in 2010.

Chapter 2

Summary of Results

Over 200 households across North Dakota and surrounding states evaluated 106 varieties of vegetables in their gardens in 2010. Varieties were rated for germination, plant health, earliness, yield, and taste.

In each of the trials, gardeners were asked which of the varieties they **preferred** and which of the varieties (none, one, or both) they would **recommend** to other gardeners. They **rated** the performance of each variety using a scale of 1 to 10, with 1 = poor and 10 = excellent.

The following is a summary of the data, including our conclusions for each trial:

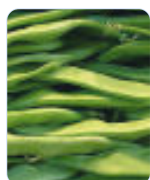


1. Dry Bean

Gardeners liked both varieties, but preferred 'Arikara Yellow'. A native variety of North Dakota, its plants were more upright, healthier, produced earlier, and were more productive. Gardeners enjoyed the flavor of both varieties.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>Arikara Yellow</i> | 62 | 85 | 7.62 |
| <i>Hutterite</i> | 38 | 85 | 7.00 |

(13 sites)



2. Green Flatpod Bean

Gardeners raved over the long, 7-inch pods of 'Greencrop', which were remarkably tender for a bean of that size. Every grower in the trial recommended it. Many gardeners did not like the taste of 'Roma II', a traditional Romano bean.

| Variety | Pref | Rec | Rating |
|------------------|------|-----|--------|
| <i>Greencrop</i> | 88 | 100 | 8.75 |
| <i>Roma II</i> | 13 | 25 | 6.00 |

(8 sites)



3. Green Gourmet Bean

'Jade' was preferred for its higher yields and earlier maturity. Its pods were longer, meatier, and a bright medium green. Gardeners praised 'Pike' for its dark green, straight, and extremely slender pods—perfect for gourmet cooking.

| Variety | Pref | Rec | Rating |
|-------------|------|-----|--------|
| <i>Jade</i> | 60 | 72 | 7.16 |
| <i>Pike</i> | 40 | 64 | 7.04 |

(26 sites)



4. Green Standard Bean

Gardeners liked both of these varieties, which are known for reliability. 'Provider' was preferred for earliness, higher yields, and an extended harvest season. Pod quality of both varieties was very good.

| Variety | Pref | Rec | Rating |
|-----------------|------|-----|--------|
| <i>Provider</i> | 53 | 80 | 7.88 |
| <i>Top Crop</i> | 47 | 60 | 7.40 |

(17 sites)



5. Purple Bean

Gardeners liked the beauty of both varieties. They preferred 'Royalty Purple Pod' for its higher yields and extended harvest season. The pods of both varieties were sometimes more stringy than desired.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>Royalty P. Pod</i> | 67 | 88 | 8.06 |
| <i>Royal Burgundy</i> | 33 | 67 | 7.49 |

(24 sites)



6. Vegetable Soybean

'Envy' germinated much better. Its plants were healthy and produced a good crop of bright green beans. 'Fiskeby' was less reliable. Its pods were larger, ripened earlier, but yields were lower. Gardeners enjoyed the flavor of both varieties.

| Variety | Pref | Rec | Rating |
|----------------|------|-----|--------|
| <i>Envy</i> | 75 | 85 | 6.69 |
| <i>Fiskeby</i> | 25 | 38 | 4.85 |

(14 sites)



7. Wax Bean

Both varieties grew well and produced good yields of quality beans. 'Carson' pods were lighter yellow in color, tender, and delicious. Its plants were fuller and healthier. 'Slenderwax' was very good but not exceptional.

| Variety | Pref | Rec | Rating |
|-------------------|------|-----|--------|
| <i>Carson</i> | 60 | 80 | 8.13 |
| <i>Slenderwax</i> | 40 | 63 | 7.38 |

(16 sites)



8. Yardlong Bean

'Gita' vines were healthier and much more productive. Its pods were smooth and full of flavor. 'Red Stripe' was poor. In general, gardeners preferred the taste of "normal" green beans over these yardlong beans.

| Variety | Pref | Rec | Rating |
|-------------------|------|-----|--------|
| <i>Gita</i> | 75 | 75 | 5.88 |
| <i>Red Stripe</i> | 25 | 13 | 3.25 |

(10 sites)



9. Beet

Both varieties produced good yields of attractive, sweet roots. Most gardeners preferred 'Detroit Dark Red' for its vigorous growth, lush tops, and dark red roots.

| Variety | Pref | Rec | Rating |
|-------------------------|------|-----|--------|
| <i>Detroit Dark Red</i> | 65 | 83 | 7.35 |
| <i>Red Ace</i> | 35 | 70 | 7.17 |

(25 sites)



10. Colorful Carrot

Gardeners loved 'Sugarsnax 54' for its bright orange color and outstanding flavor. Most gardeners liked 'Rainbow', although its lighter colored roots were less flavorful. Kids especially appreciated 'Rainbow' for its array of colors.

| Variety | Pref | Rec | Rating |
|---------------------|------|-----|--------|
| <i>Sugarsnax 54</i> | 72 | 89 | 7.61 |
| <i>Rainbow</i> | 28 | 64 | 6.70 |

(39 sites)



11. Orange Carrot

Both varieties grew well and produced lots of tasty carrots. Gardeners preferred 'Nelson' for its straighter, smoother, and very uniform carrots. Many gardeners felt it tasted better, especially when eaten raw.

| Variety | Pref | Rec | Rating |
|---------------|------|-----|--------|
| <i>Nelson</i> | 62 | 79 | 7.49 |
| <i>Mokum</i> | 38 | 70 | 6.79 |

(78 sites in 2009 and 41 sites in 2010)



12. Purple Carrot

Gardeners liked 'Purple Haze' for its long, straight, dark purple roots. Gardeners were delighted with the brilliant red-purple skin of 'Cosmic Purple' but this coloration was shallow and its roots were subject to cracking and forking.

| Variety | Pref | Rec | Rating |
|----------------------|------|-----|--------|
| <i>Purple Haze</i> | 55 | 78 | 7.50 |
| <i>Cosmic Purple</i> | 45 | 84 | 7.32 |

(19 sites)



13. White Carrot

These carrots were easy to clean and had a delicate flavor. 'Crème de Lite' produced higher yields and its roots were more slender and tapered.

| Variety | Pref | Rec | Rating |
|----------------------|------|-----|--------|
| <i>Crème de Lite</i> | 67 | 67 | 7.67 |
| <i>White Satin</i> | 33 | 50 | 6.67 |

(6 sites)



14. Yellow Carrot

'Yellow Sun' was praised for its golden yellow roots and sweet taste. Every gardener liked it. 'Yellowstone' roots were more slender but were lighter colored and sometimes had a greenish tint.

| Variety | Pref | Rec | Rating |
|--------------------|------|-----|--------|
| <i>Yellow Sun</i> | 80 | 100 | 8.67 |
| <i>Yellowstone</i> | 20 | 40 | 5.80 |
| (6 sites) | | | |



15. Pickling Cucumber

'Alibi' was 10 days earlier. Gardeners liked the shape, firmness, and deep green color of its cukes. 'H-19 Little Leaf' was slower to get started but then impressed gardeners with its late season yields. Its cukes were uniform in size.

| Variety | Pref | Rec | Rating |
|-------------------------|------|-----|--------|
| <i>Alibi</i> | 59 | 71 | 7.21 |
| <i>H-19 Little Leaf</i> | 41 | 55 | 5.88 |
| (35 sites) | | | |



16. Slicing Asian Cucumber

The productivity of 'Orient Express II' was amazing. Its cucumbers were very slender, attractive, delicious, and burpless. Every gardener recommended it. 'Suyo Long' could not compete with it.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>Orient Exp. II</i> | 100 | 90 | 8.22 |
| <i>Suyo Long</i> | 0 | 30 | 5.56 |
| (10 sites) | | | |



17. Slicing Beit Alpha Cucumber

Gardeners enjoyed the quality of these cukes, especially the taste of 'Diva'. Several gardeners reported the vines of 'Sultan' were more vigorous, setting fruits earlier in the season. Neither variety was vigorous or very productive.

| Variety | Pref | Rec | Rating |
|---------------|------|-----|--------|
| <i>Diva</i> | 50 | 58 | 5.86 |
| <i>Sultan</i> | 50 | 58 | 5.47 |
| (19 sites) | | | |



18. Slicing Burpless Cucumber

Neither variety excelled, but gardeners generally liked both. About half of the gardeners liked the yields and slimmer cucumbers of 'Sweeter Yet'. The other half preferred the straighter, more uniform cucumbers of 'Sweet Slice'.

| Variety | Pref | Rec | Rating |
|---|------|-----|--------|
| <i>Sweeter Yet</i> | 54 | 66 | 7.33 |
| <i>Sweet Slice</i> | 46 | 66 | 6.84 |
| (77 sites in 2009 and 26 sites in 2010) | | | |



19. Slicing Classic Cucumber

'Marketmore 76' cukes were dark green, smooth, and slower to become overmature. It maintained its production late into the season. 'Longfellow' vines were vigorous. Neither variety could match the yields or fruit qualities of the best hybrids.

| Variety | Pref | Rec | Rating |
|----------------------|------|-----|--------|
| <i>Marketmore 76</i> | 69 | 69 | 7.08 |
| <i>Longfellow</i> | 31 | 54 | 6.33 |
| (13 sites) | | | |



20. Slicing Standard

Gardeners were most impressed with the health, vigor, and productivity of 'General Lee' throughout the summer. 'Raider' got off to a strong start and produced good yields in the early season. Both produced good quality cukes.

| Variety | Pref | Rec | Rating |
|--------------------|------|-----|--------|
| <i>General Lee</i> | 58 | 78 | 7.45 |
| <i>Raider</i> | 42 | 61 | 7.02 |
| (19 sites) | | | |



21. Mizuna

Gardeners were pleased with the delicate flavor and fringed leaves of mizuna. Both varieties were easy to grow and found to be a nice addition to a mixed salad. 'Kyona Mizuna' was faster growing, more productive, and more attractive.

| Variety | Pref | Rec | Rating |
|----------------------|------|-----|--------|
| <i>Kyona Mizuna</i> | 75 | 75 | 7.75 |
| <i>Mizuna Purple</i> | 25 | 25 | 5.33 |
| (4 sites) | | | |



22. Red Mustard

Both varieties performed well. The greens were beautiful and had a mild, pleasant, peppery taste. The greens of ‘Osaka Purple’ were more tender and less coarse. ‘Red Giant’ had larger leaves and was more vigorous.

| Variety | Pref | Rec | Rating |
|---------------------------------------|------|-----|--------|
| <i>Osaka Purple</i> | 62 | 78 | 8.22 |
| <i>Red Giant</i> | 38 | 78 | 8.09 |
| (6 sites in 2009 and 2 sites in 2010) | | | |



23. Kohlrabi

Gardeners liked the uniformly round bulbs of ‘Winner’. Yields were good and its bulbs resisted splitting. The smooth, fruity flavor of ‘Winner’ was enjoyable. ‘Early White Vienna’ matured very early and produced good quality bulbs.

| Variety | Pref | Rec | Rating |
|---|------|-----|--------|
| <i>Winner</i> | 64 | 95 | 7.64 |
| <i>E. White Vienna</i> | 36 | 74 | 6.76 |
| (27 sites in 2009 and 16 sites in 2010) | | | |



24. Lettuce, Green Leaf

‘Salad Bowl’ and ‘Slobolt’ were impressive in everything: health, growth rate, yields, resistance to bolting, and flavor. Most gardeners preferred ‘Slobolt’ for its larger leaves, higher yields, and longer harvest period.

| Variety | Pref | Rec | Rating |
|--|------|-----|--------|
| <i>Slobolt</i> | 59 | 84 | 7.84 |
| <i>Salad Bowl</i> | 41 | 80 | 7.53 |
| (23 sites in 2009 and 8 sites in 2010) | | | |



25. Lettuce, Red Leaf

‘New Red Fire’ and ‘Red Sails’ were exceptional. Gardeners loved the appearance, yield, and taste of both varieties. ‘New Red Fire’ showed outstanding vigor and its leaves were brightly colored. ‘Red Sails’ was extremely productive.

| Variety | Pref | Rec | Rating |
|---|------|-----|--------|
| <i>Red Sails</i> | 51 | 92 | 8.20 |
| <i>New Red Fire</i> | 49 | 87 | 8.25 |
| (26 sites in 2009 and 15 sites in 2010) | | | |



26. Lettuce, Specialty

Gardeners liked both varieties. Both of these bolt-resistant varieties produced good yields of lettuce through much of the summer. Most gardeners preferred ‘Buttercrunch’. It had a darker green, fuller leaf and its heads were very attractive.

| Variety | Pref | Rec | Rating |
|---|------|-----|--------|
| <i>Buttercrunch</i> | 54 | 80 | 8.03 |
| <i>Nevada</i> | 46 | 72 | 7.44 |
| (34 sites in 2009 and 29 sites in 2010) | | | |



27. Melon, Asian

‘Sun Jewel’ was more vigorous, healthier, and more productive. Its fruits were larger and of higher quality. Both varieties matured early. Their flavor was unusual—somewhat like a pear—some gardeners liked it and some did not.

| Variety | Pref | Rec | Rating |
|--------------------------|------|-----|--------|
| <i>Sun Jewel</i> | 100 | 80 | 6.17 |
| <i>Early Silver Line</i> | 0 | 20 | 4.00 |
| (5 sites) | | | |



28. Melon, Cantaloupe Classic

‘Delicious 51’ was superior although both varieties performed poorly. ‘Delicious 51’ was earlier, more productive, and its melons were more attractive. Yields of both varieties were poor. These heirlooms do not have the vigor of hybrids.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>Delicious 51</i> | 60 | 36 | 4.91 |
| <i>Hearts of Gold</i> | 40 | 27 | 3.91 |
| (13 sites) | | | |



29. Melon, Cantaloupe Classic Large

Neither variety was impressive. Yields were poor. ‘Pride of Wisconsin’ had healthier vines and was more likely to produce a ripe melon. Gardeners loved the flavor of these melons, but there were very few ripe melons to savor.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>Iroquois</i> | 50 | 42 | 5.67 |
| <i>Pride of Wisc.</i> | 50 | 42 | 5.58 |
| (13 sites) | | | |



30. Melon, Cantaloupe Hybrid

Yields of both varieties were low. 'Athena' melons were larger and more attractive; its flesh was sweet and firm. 'Goddess' was very sweet, but its rind was thin and the melons had a short shelf life. 'Goddess' was earlier, a very valuable trait.

| Variety | Pref | Rec | Rating |
|----------------|------|-----|--------|
| <i>Athena</i> | 65 | 75 | 6.19 |
| <i>Goddess</i> | 35 | 50 | 5.13 |
| (16 sites) | | | |



31. Melon, Galia

'Passport' is a fine green-flesh melon variety for the north. Gardeners liked its early maturity, high yields, and attractive melons. Most gardeners were not satisfied with the earliness or yields of 'Arava'.

| Variety | Pref | Rec | Rating |
|-----------------|------|-----|--------|
| <i>Passport</i> | 80 | 100 | 8.80 |
| <i>Arava</i> | 20 | 40 | 5.60 |
| (5 sites) | | | |



32. Pea, Shelling

Gardeners liked both varieties and were evenly split when choosing their favorite. 'Early Frosty' was earlier and well liked for its freezing qualities. 'Lincoln' was preferred by many for its longer pods. Yields of both were acceptable.

| Variety | Pref | Rec | Rating |
|---------------------|------|-----|--------|
| <i>Lincoln</i> | 50 | 78 | 7.38 |
| <i>Early Frosty</i> | 50 | 68 | 7.11 |
| (38 sites) | | | |



33. Pea, Snap

Gardeners were lukewarm and evenly split on which of the varieties they preferred. Many felt 'Cascadia' had healthier, more productive vines. The pods of 'Sugar Sprint' were not as attractive, but were definitely sweeter.

| Variety | Pref | Rec | Rating |
|---------------------|------|-----|--------|
| <i>Sugar Sprint</i> | 50 | 64 | 6.43 |
| <i>Cascadia</i> | 50 | 55 | 6.38 |
| (32 sites) | | | |



34. Jack-O'-Lantern Pumpkin

The precocious habit of 'Neon' guarantees orange pumpkins for Halloween. Gardeners liked 'Neon' for its bright orange color, smooth rind, and uniformity. 'Racer' produced larger pumpkins with a darker orange rind and better taste.

| Variety | Pref | Rec | Rating |
|--------------|------|-----|--------|
| <i>Neon</i> | 55 | 81 | 7.31 |
| <i>Racer</i> | 45 | 71 | 7.16 |
| (32 sites) | | | |



35. French Radish

Gardeners preferred 'French Breakfast' for its higher yields. Its scarlet and white roots were very attractive, uniform in shape, and mild tasting. Gardeners also enjoyed the look and taste of 'D'Avignon', which matured very quickly.

| Variety | Pref | Rec | Rating |
|---|------|-----|--------|
| <i>French Breakfast</i> | 70 | 70 | 6.71 |
| <i>D'Avignon</i> | 30 | 67 | 5.84 |
| (17 sites in 2009 and 7 sites in 2010) | | | |



36. Pink Radish

Gardeners liked the novel color and mild flavor of both varieties. They were impressed with the uniform size and globular shape of 'Pink Beauty' and loved the bright pink color of 'Pretty in Pink'.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>Pink Beauty</i> | 57 | 86 | 7.88 |
| <i>Pretty in Pink</i> | 43 | 100 | 7.29 |
| (8 sites) | | | |



37. Red Radish

Gardeners liked both varieties, but most preferred 'Cherry Belle'. They liked its mild flavor and round, bright red roots. A few gardeners noted 'Champion' stood better in the field before getting hot and woody.

| Variety | Pref | Rec | Rating |
|---------------------|------|-----|--------|
| <i>Cherry Belle</i> | 67 | 89 | 8.11 |
| <i>Champion</i> | 33 | 56 | 7.22 |
| (9 sites) | | | |



38. White Radish

Both varieties performed well in Fall 2009 under ideal conditions. 'Ping Pong' also excelled under warmer than ideal temps in Spring 2010. This hybrid was more uniform in shape, tasted milder, and resisted splitting and bolting.

| Variety | Pref | Rec | Rating |
|---------------------------------------|------|-----|--------|
| <i>Ping Pong</i> | 70 | 64 | 7.60 |
| <i>Hailstone</i> | 30 | 52 | 5.90 |
| (6 sites in 2009 and 4 sites in 2010) | | | |



39. Red-Stem Spinach

Most gardeners preferred 'Red Cardinal' for its higher yields, but neither variety was impressive. Bolting in early summer was a problem. Some gardeners were disappointed with the small size of the leaves.

| Variety | Pref | Rec | Rating |
|---------------------|------|-----|--------|
| <i>Red Cardinal</i> | 67 | 65 | 5.85 |
| <i>Bordeaux</i> | 33 | 22 | 4.53 |
| (12 sites) | | | |



40. Smooth-Leaf Spinach

Both varieties resisted bolting and produced impressive yields of delicious, easy-to-clean leaves. The majority of gardeners preferred 'Olympia' for its higher yields and more attractive leaves.

| Variety | Pref | Rec | Rating |
|----------------|------|-----|--------|
| <i>Olympia</i> | 61 | 75 | 7.46 |
| <i>Space</i> | 39 | 75 | 7.17 |
| (18 sites) | | | |



41. Green Zucchini Summer Squash

Both varieties were outstanding. Their plants were healthy and extremely productive. Their fruits were attractive and delicious. Most gardeners preferred 'Spineless Beauty' for its spineless vines and open plant habit.

| Variety | Pref | Rec | Rating |
|-------------------------|------|-----|--------|
| <i>Spineless Beauty</i> | 75 | 91 | 8.45 |
| <i>Zucchini Elite</i> | 25 | 82 | 8.00 |
| (12 sites) | | | |



42. Yellow Specialty Summer Squash

Gardeners liked both of these All-American varieties. Their vines were productive and their fruits were colorful. 'Papaya Pear' was especially productive, but gardeners preferred 'Sunburst' for the beauty and quality of its fruits.

| Variety | Pref | Rec | Rating |
|--------------------|------|-----|--------|
| <i>Sunburst</i> | 88 | 100 | 8.44 |
| <i>Papaya Pear</i> | 13 | 75 | 7.11 |
| (9 sites) | | | |



43. Yellow Straightneck Summer Squash

Our gardeners were amazed at the productivity of these varieties. Differences were subtle, but most gardeners preferred 'Sunray' for its smooth, more attractive fruits.

| Variety | Pref | Rec | Rating |
|-----------------|------|-----|--------|
| <i>Sunray</i> | 83 | 88 | 7.50 |
| <i>Multipik</i> | 17 | 75 | 6.13 |
| (8 sites) | | | |



44. Acorn Winter Squash

Neither variety was especially productive. The slight edge went to 'Table King', which showed more vigor and produced larger fruits. Some gardeners preferred the cute, smaller fruits of 'Honey Bear'; its vines were especially compact.

| Variety | Pref | Rec | Rating |
|-------------------|------|-----|--------|
| <i>Table King</i> | 60 | 60 | 5.80 |
| <i>Honey Bear</i> | 40 | 50 | 5.67 |
| (11 sites) | | | |



45. Buttercup Winter Squash

Gardeners were satisfied with both varieties. The fruits of 'Burgess' matured earlier and were generally larger than those of 'Uncle David's Dakota Dessert'. Yields were similar and gardeners were divided on taste qualities.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>Burgess</i> | 56 | 76 | 7.41 |
| <i>U.D.D. Dessert</i> | 44 | 65 | 7.41 |
| (34 sites) | | | |



46. Butternut Winter Squash

The vines of 'Waltham' showed robust growth and produced a higher yield. The semi-bush habit of 'Early Butternut' was appreciated by gardeners with limited space. Gardeners enjoyed eating the fruits of both varieties.

| Variety | Pref | Rec | Rating |
|---|------|-----|--------|
| <i>Waltham</i> | 51 | 76 | 7.66 |
| <i>Early Butternut</i> | 49 | 70 | 7.41 |
| (15 sites in 2009 and 9 sites in 2010) | | | |



47. Hubbard Winter Squash

Neither variety was exceptional, but gardeners liked both of them. Most gardeners preferred 'Red Kuri' for its impressive yields and rich flavor. They also enjoyed the beauty and sweetness of our North Dakota native squash 'Lakota'.

| Variety | Pref | Rec | Rating |
|-----------------|------|-----|--------|
| <i>Red Kuri</i> | 60 | 70 | 7.29 |
| <i>Lakota</i> | 40 | 70 | 6.71 |
| (10 sites) | | | |



48. Gold Swiss Chard

'Bright Yellow' was vigorous when young and is well suited for baby greens production. Its ribs are sunny yellow when young, turning gold as the plants mature. The bright orange ribs of 'Orange Fantasia' were also very attractive.

| Variety | Pref | Rec | Rating |
|------------------------|------|-----|--------|
| <i>Bright Yellow</i> | 50 | 100 | 8.25 |
| <i>Orange Fantasia</i> | 50 | 75 | 8.00 |
| (4 sites) | | | |



49. Red Swiss Chard

Gardeners were not excited about either variety, but most preferred 'Rhubarb'. They liked its vigor and the vivid contrast between the deep green and rich red colors in its leaves. 'Magenta Sunset' had a relatively mild flavor.

| Variety | Pref | Rec | Rating |
|---|------|-----|--------|
| <i>Rhubarb</i> | 55 | 50 | 5.85 |
| <i>Magenta Sunset</i> | 45 | 41 | 5.64 |
| (11 sites in 2009 and 4 sites in 2010) | | | |



50. White Swiss Chard

Neither of the varieties stood out as being exceptionally good or bad. The few growers who participated in the trial preferred 'Lucullus' primarily on the basis of its very crinkly, attractive leaves.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>Lucullus</i> | 100 | 67 | 7.00 |
| <i>Fordhook Giant</i> | 0 | 33 | 6.00 |
| (3 sites) | | | |



51. Gold Watermelon

'Gold Flower' was much earlier and productive. Its flesh was crisp and sweet, but the rind was thin and susceptible to cracking. 'Orangeglo' had a more traditional watermelon shape, but was slow to ripen, unreliable, and not very sweet.

| Variety | Pref | Rec | Rating |
|--------------------|------|-----|--------|
| <i>Gold Flower</i> | 75 | 47 | 5.41 |
| <i>Orangeglo</i> | 25 | 19 | 3.89 |
| (14 sites) | | | |



52. Red Watermelon

Yields of both varieties were poor. 'Sugar Baby' matured earlier and produced higher yields, but fruit quality was only acceptable. 'Sweet Dakota Rose' was not reliable, but the successful gardeners (usually in the south) loved its taste.

| Variety | Pref | Rec | Rating |
|-----------------------|------|-----|--------|
| <i>S. Dakota Rose</i> | 51 | 57 | 4.95 |
| <i>Sugar Baby</i> | 49 | 44 | 4.61 |
| (42 sites) | | | |



53. Yellow Watermelon

'Yellow Doll' was superior, but neither variety excelled. Both varieties got off to slow starts and yields were low. Most gardeners enjoyed the taste of 'Yellow Doll' and recommended the variety. 'Yellow Alice' performed poorly.

| Variety | Pref | Rec | Rating |
|---------------------|------|-----|--------|
| <i>Yellow Doll</i> | 64 | 79 | 5.75 |
| <i>Yellow Alice</i> | 36 | 29 | 4.67 |
| (14 sites) | | | |

Chapter 3

Vegetable Trial Reports

Trial 1. Bean, Dry

Varieties (information from seed catalogs)

'Arikara Yellow'

85 days. Prolific plants produce yellow-tan seeds. Good drought tolerance. From the Arikara tribe of Dakota.

'Hutterite'

87 days. Makes an outstanding creamy white soup. Very productive, greenish yellow seeds with a dark ring around the eye.

Data

Data were collected at 13 sites in 2010.

| Trait | 'Arikara Yellow' | 'Hutterite' | Same |
|-----------------------------------|------------------|-------------|-------------|
| Germinated best | 31 % | 8 % | 62 % |
| Healthier plants | 54 | 23 | 23 |
| Matured earlier | 69 | 15 | 15 |
| Higher yields | 54 | 23 | 23 |
| More attractive seeds | 62 | 23 | 15 |
| Tasted better | 11 | 22 | 67 |
| <i>Preference</i> | 62 | 38 | |
| <i>Recommend to others</i> | 85 | 85 | |
| <i>Overall rating¹</i> | 7.62 | 7.00 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both were good for soups.
- Taste different—both good.

Comments on 'Arikara Yellow' Bean

- Larger pods; more beans; earlier. They were easier to harvest!
- Held its pods off the ground better, had higher yield, and seemed easier to shell.
- Plants were more compact and stood up better. Nice looking, large, uniform seeds. The seeds look more like pinto beans when cooked. I can't wait to use these in chili!



- I prefer its look—more appetizing.
- Fun to grow because the seeds look so cute and have the native history.
- Larger, stronger plants. Very little care needed. Much greater yield. Better tasting than 'Great Northern'.
- Plants seemed slightly healthier. I prefer the darker shade of its seeds.

Comments on 'Hutterite' Bean

- Plants were leggier and laid on the ground more than 'Arikara Yellow'. Seeds were later ripening, smaller, and had spots. Seeds look like navy beans when cooked—nice and white. Made a creamier soup, which I loved.
- Creamy and mild tasting. More versatile.
- Better overall looking plant—a little better heat resistance.
- Double the yield.
- More pods per plant by far.
- Matured later. Some pods had mold or mildew where they touched the ground.

Conclusions

Gardeners liked both varieties, but preferred 'Arikara Yellow'. A native variety of North Dakota, its plants were more upright and sturdy, healthier, produced earlier, and were more productive. Gardeners enjoyed the flavor of both varieties.

Trial 2. Bean, Green Flatpod

Varieties (information from seed catalogs)

‘Greencrop’

51 days. This leading flat-pod variety produces crisp, stringless, 7-inch pods. Excellent flavor. Former All-America winner.

‘Roma II’

59 days. High yielding Romano bean. Wide, smooth pods measure 5.5 inches long. Slow seed and fiber development provide optimum eating quality over a long period. Concentrated set and freezes well.



Data

Data were collected at 8 sites in 2010.

| Trait | ‘Greencrop’ | ‘Roma II’ | Same |
|-----------------------------------|-------------|-----------|-------------|
| Germinated best | 13 % | 25 % | 63 % |
| Healthier plants | 14 | 0 | 86 |
| Matured earlier | 13 | 63 | 13 |
| Higher yields | 63 | 0 | 25 |
| More attractive pods | 75 | 0 | 25 |
| Tasted better | 75 | 0 | 25 |
| <i>Preference</i> | 88 | 13 | |
| <i>Recommend to others</i> | 100 | 25 | |
| <i>Overall rating¹</i> | 8.75 | 6.00 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- These were both excellent, flavorful beans. Both stayed very tender and not seedy. Both varieties produced high yields.
- Exceptional germination. Both looked healthy and full in the garden.
- Plants of both varieties were healthy. I don’t like flat pods.
- Both produced until late in the season.

Comments on ‘Greencrop’ Bean

- Later to mature but higher yields. Pods looked good.
- Matured one week earlier. Slightly higher yields. I prefer the appearance of its pods (long, flat). They taste better and seemed to be tastier.
- Nice, long, tender green beans. Produced almost twice as much. Pods were meatier and longer—delicious. Better tasting.
- Stringless and tasted better.

Comments on ‘Roma II’ Bean

- Produced early. Funny looking pods.
- Didn’t have as good flavor; didn’t look like traditional green bean.

Conclusions

Gardeners raved over the long, 7-inch pods of ‘Greencrop’, which were remarkably tender for a bean of that size. Every grower in the trial recommended it. ‘Greencrop’ was clearly preferred over ‘Roma II’, a traditional Romano bean. Many gardeners did not like the taste of ‘Roma II’.

Trial 3. Bean, Green Gourmet

Varieties (information from seed catalogs)

'Jade'

60 days. Long, straight pods with excellent color and flavor. Strong, upright plants hold pods above the ground, which reduces curling and tip rot. Pale green seeds.

'Pike'

55 days. A consistent performer for the north, even under stressful conditions. Medium-dark green, 5.5-inch pods are straight and smooth. Holds well in the garden at maturity. White seeds.



Data

Data were collected at 26 sites in 2010.

| Trait | 'Jade' | 'Pike' | Same |
|-----------------------------------|-------------|--------|-------------|
| Germinated best | 22 % | 37 % | 41 % |
| Healthier plants | 36 | 12 | 52 |
| Matured earlier | 64 | 24 | 12 |
| Higher yields | 54 | 25 | 21 |
| More attractive pods | 38 | 32 | 30 |
| Tasted better | 20 | 34 | 46 |
| <i>Preference</i> | 60 | 40 | |
| <i>Recommend to others</i> | 72 | 64 | |
| <i>Overall rating¹</i> | 7.16 | 7.04 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- The best beans I've had. They were both healthy. Nice pods. Both of these really gave me a lot of beans until the hail got them.
- Both produced well and kept producing—tasted great.
- The plants were huge and continued producing flowers all summer. Both were excellent eating; raw and cooked.
- These beans loved producing. I saw new blossoms all the time throughout the summer. In fact they were still flowering right up to our first killing frost. We sure enjoyed these beans.
- We liked the taste of both. We canned and froze both types. They both tasted delicious.
- Both were still blooming at frost. Both tasted good.
- They were very nice plants—not too tall—held up well—pods were long and slim and very good tasting.

- Both have nice long straight pods that taste good.
- Both were good producers.
- Both varieties remained healthy with no visible white mold problems for either.
- Rust disease issues. Neither was very productive; but this could have been due to the poor soil we were working with.
- Great when sautéed.

Comments on 'Jade' Bean

- Bigger plants and pods. Plentiful, healthy, and consistently produced new beans to can and put up for winter.
- Long, straight, uniform beans. I liked its sturdy plants, non-stringy beans, and abundant production.
- Loved its straight long pods.
- Produced ten days earlier. Need to pick when beans are young—pods quickly grew to be quite large. Pods were slightly larger, and lighter in color.
- Pods were 6.5 inches long compared to 6.0 inches for 'Pike'.
- Had lots of 4-inch-long pods and kept producing into September. I don't mind the lighter color of its pods.
- Better overall performance and taste.
- Overall performance was superior.
- Heartier beans; produced more.
- I like its size and texture. Higher yield. More tender.
- Great flavor.
- Nice big bushy plants—slightly lighter leaf color. Pods were not as slender; seemed to "plump" faster.

More Comments on 'Jade' Bean

- Plants were healthy and large. Matured one to two days earlier. Produced nice, long, slender beans. Weren't as seedy if picked older.
- Did not have a high yield; only could pick a small handful at a time.

Comments on 'Pike' Bean

- Much more attractive; skinnier, better dark green color. Ready to pick sooner. Better tasting for eating fresh.
- Deep green, slender pods with small seeds inside. Even when left on the vine too long they remained slender and very tasty.
- Very good yields. Nice, smooth dark green pods. More attractive and seemed to taste better.
- Very long, slender, dark green beans. Beautiful. The tender long beans are wonderful steamed.
- The thick and hearty plants produced a ton of beans. The beans were a rich and vibrant green; also nice and straight. Very disappointed when I tasted them—very bland.
- Its beans tended to be a little hard (the bean seed) if picked too large.
- Germinated faster and produced earlier yields.
- Better taste.
- Plants are smaller and more compact. Beans were crisper when eaten raw and cooked.
- Darker green plants. Smaller beans.
- Plants were shorter and leaves were dark green with lots of flowers. They tasted the best. Nice long, straight pods. They didn't lose any color when they were cooked. Very easy to pick. Its darker green pods look more attractive on a plate. My nephew owns a café and I gave him some of each. He steamed them, and then sautéed them with garlic and the customers loved them. He thought 'Pike' tasted the best.
- Bloomed and set several days earlier than 'Jade'. Shorter pods, but were a beautiful dark green. It has a lot going for it.

Conclusions

Both varieties generated a lot of excitement among the gardeners. Gardeners were pleased with the quality of pods for both varieties. 'Jade' was generally preferred for its higher yields and earlier maturity. Its pods were longer, meatier, and a bright medium green. Many gardeners praised 'Pike' for its dark green, straight, and very slender pods—perfect for gourmet cooking.

Trial 4. Bean, Green Standard

Varieties (information from seed catalogs)

'Provider'

51 days. Very dependable and productive. Concentrated, early harvests of attractive, straight beans. Easy to grow and tastes great. Purple seeds germinate well in cool soil.

'Top Crop'

55 days. Widely adapted. Yields are consistently high. Pods are medium green, stringless, and 5.5 to 6.0 inches long. Concentrated pod set. Buff seeds.



Data

Data were collected at 17 sites in 2010.

| Trait | 'Provider' | 'Top Crop' | Same |
|-----------------------------------|-------------|------------|-------------|
| Germinated best | 23 % | 15 % | 62 % |
| Healthier plants | 38 | 8 | 54 |
| Matured earlier | 58 | 17 | 25 |
| Higher yields | 50 | 17 | 33 |
| More attractive pods | 45 | 0 | 55 |
| Tasted better | 27 | 9 | 64 |
| <i>Preference</i> | 53 | 47 | |
| <i>Recommend to others</i> | 80 | 60 | |
| <i>Overall rating¹</i> | 7.88 | 7.40 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both types of plants grew nice and bushy. Yields of both were fair. Pods tasted good and crisp. Tasted really good cooked.
- Both were excellent producers with large, straight, and tender pods. In fact, they produced so well that green beans became my "zucchini" this year.
- The plants were both healthy and lots of blooms.
- Tasted the same.
- Both taste great.

Comments on 'Provider' Bean

- Produced two weeks earlier. Beans were longer and thicker. More beans from the second crop as well.
- Plants were nice, bushy, and free of rust. Unbelievable yields. Pods were nice, long, and filled.
- Better germination, healthier plants, and more beans.
- Produced approximately one week earlier and continued to produce until frost. Longer production time.

Comments on 'Top Crop' Bean

- Matured earlier. Pods lasted longer after harvest.
- Milder taste.
- Hardier and better yield.
- More pods per plant. Pods would get rotten spots due to excessive moisture.
- A little mold.
- Poor germination and weak seedlings.

Conclusions

These varieties have a reputation for reliable yields and they did not disappoint us. Gardeners liked both varieties. 'Provider' was preferred for its earliness, higher yields, and extended harvest season. The quality of pods for both varieties was very good.

Trial 5. Bean, Purple

Varieties (information from seed catalogs)

'Royal Burgundy'

54 days. Pods are 5 inches long, stringless, and tender. Upright, hardy plants. Dark purple pods turn green when cooked. Buff-colored seeds.

'Royalty Purple Pod'

52 days. Stringless, 5-inch pods are tender. Germinates well in cool soil. Distinctive purple foliage and pods. Pods turn green when cooked.



Data

Data were collected at 24 sites in 2010.

| Trait | 'Royal Burgundy' | 'Royalty Purple Pod' | Same |
|------------------------------------|------------------|----------------------|-------------|
| Germinated best | 10 % | 15 % | 75 % |
| Healthier plants | 26 | 16 | 58 |
| Matured earlier | 47 | 26 | 26 |
| Higher yields | 16 | 42 | 42 |
| More attractive pods | 17 | 22 | 61 |
| Tasted better | 16 | 21 | 63 |
| <i>Preference</i> | 33 | 67 | |
| <i>Recommend to others</i> | 67 | 88 | |
| <i>Overall rating</i> ¹ | 7.49 | 8.06 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both looked great.
- Both were gorgeous! I would plant either of these varieties.
- Both produced plants from every seed sown. Both plants seemed and looked equally healthy. Produced at the same time. Produced a lot of beans!
- Both varieties germinated very good. Produced early and equally.
- Very attractive pods. Both had a string when cooked that was very inedible.

Comments on 'Royal Burgundy' Bean

- Crisper pod; better taste. Matured a few days earlier.
- Straighter pods.
- Tasted better. Surprised that they turned green when cooked!

- It produced more. Better texture.
- Produced slightly better.
- Pods have tough strings.
- Each pods had a thick string.

Comments on 'Royalty Purple Pod' Bean

- Matured one week earlier.
- Produced more and tasted better.
- More beans and sometimes a bigger plant.
- I've grown 'Royal Burgundy' for years—but like 'Royalty Purple Pod'. Produced later and had a better second crop late in the season.
- Pods cooked to a more attractive green color and were not as dry.
- Nice color and large, longer pods.
- Produced longer and stayed tender longer.
- Earlier and yielded better.
- Pods had a better overall texture.
- Beans were straighter. Interesting to grow, cook, and eat.
- Pods were more juicy and tasty.
- Better flavor and texture.
- Pods filled better.
- Bitter aftertaste.

Conclusions

Gardeners liked both varieties, especially the beauty of their pods. Plants were healthy and productive. Most gardeners preferred 'Royalty Purple Pod' for its higher yields and extended harvest season. Pod curling has been a problem of this variety in previous years, but it was not a problem in 2010 (perhaps due to our favorable rainfall pattern). The pods of both varieties were sometimes more stringy than desired.

Trial 6. Bean, Vegetable Soybean

Varieties (information from seed catalogs)

'Envy'

75 days. The favorite in short-season areas. Upright 2-foot plants bear an early crop of bright green beans. Earlier maturing but lower yielding than other varieties. Prepare in meals as you would lima beans, or boil in the pod for edamame.

'Fiskeby'

77 days. Swedish variety that thrives in northern climates. Very high in protein, calcium, iron, and vitamins. Use fresh like limas or then boil for edamame. May be dried and used for soups in winter.

Data

Data were collected at 14 sites in 2010.

| Trait | 'Envy' | 'Fiskeby' | Same |
|-----------------------------------|-------------|-----------|-----------|
| Germinated best | 69 % | 15 % | 15 % |
| Healthier plants | 58 | 17 | 25 |
| Matured earlier | 31 | 62 | 8 |
| Higher yields | 62 | 23 | 15 |
| More attractive pods and seeds | 17 | 17 | 67 |
| Tasted better | 18 | 9 | 73 |
| <i>Preference</i> | 75 | 25 | |
| <i>Recommend to others</i> | 85 | 38 | |
| <i>Overall rating¹</i> | 6.69 | 4.85 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Soybeans are delicious! Want to grow them again.
- Both produced lots of pods. I had never tried these before but both varieties tasted the same to me.
- Tasted the same.
- Liked having them both since they matured at different times.
- The plants of both varieties dried up before they were big enough—we just ate small beans.

Comments on 'Envy' Soybean

- Germinated four days earlier and much better overall. Healthy, beautiful plants.
- One more bean per pod, giving you more beans with the same amount of work.



- It germinated and grew much better. Produced 205 versus 115 grams.
- Plants were taller and looked nicer. Taller plants and more pods.
- Twice the stand.
- Superior germination and yield.
- Tasted good but the beans were quite small.
- Definitely the best.

Comments on 'Fiskeby' Soybean

- Easier to pick and shell.
- Earlier harvest. Fun to be the first fresh veggie of the summer.
- Very spotty germination. I replanted and it was still quite spotty.
- Tasted very good when green and we dried some for a winter dish!
- Matured four days earlier.
- Were up first, fruited first, and dried first. More seeds per pod.
- Germination was half of 'Envy'. More aphid damage. Harvested about two weeks earlier. Longer pods on average.
- More pods with three seeds.

Conclusions

'Envy' germinated much better. Its plants were very healthy and produced a good crop of bright green beans. The germination of 'Fiskeby' was spotty and its performance was less reliable. Its pods were larger, ripened earlier, but overall yields were lower. Most gardeners enjoyed the flavor of both varieties.

Trial 7. Bean, Wax

Varieties (information from seed catalogs)

'Carson'

56 days. Slim pods average 5.5 inches and are flavorful and tender. Plants are vigorous and productive. White seeds.

'Slenderwax'

56 days. Attractive, rich yellow pods are straight and smooth. Excellent eating quality. A consistently good performer.



Data

Data were collected at 16 sites in 2010.

| Trait | 'Carson' | 'Slenderwax' | Same |
|-----------------------------------|-------------|--------------|-------------|
| Germinated best | 33 % | 13 % | 53 % |
| Healthier plants | 44 | 19 | 38 |
| Matured earlier | 40 | 20 | 40 |
| Higher yields | 27 | 33 | 40 |
| More attractive pods | 40 | 27 | 33 |
| Tasted better | 29 | 7 | 64 |
| <i>Preference</i> | 60 | 40 | |
| <i>Recommend to others</i> | 80 | 63 | |
| <i>Overall rating¹</i> | 8.13 | 7.38 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both germinated well (near 100%), grew well (no diseases, etc.), and tasted good!
- Both varieties had nice and firm beans, but poor yields.
- Both were very good eating; mild flavor and not stringy. Plants were large and healthy (no rust).
- Both had healthy plants. Very difficult to make a choice between these two—both performed excellently in my garden. High yields for both.
- We enjoyed a long harvest from both varieties—until the end of August. Both were very productive.
- The beans of both varieties froze and canned well.
- Production and taste were so similar that it is hard to judge a difference.

Comments on 'Carson' Bean

- Plants were bushier and healthier looking. Higher yields. Beans were longer and a more uniform yellow color when young (beans of 'Slenderwax' had a green tint when young).
- Plants were slightly more vigorous and beans were ready three days before 'Slenderwax'.
- Plants and beans were fuller and nicer.
- Plants looked healthy and its beans were plump and long.
- Better yields; beans were nice size and tasty!
- Pods were skinnier but tasted better.
- More taste. Cooked to a prettier, lighter yellow than 'Slenderwax'.

Comments on 'Slenderwax' Bean

- Taller plants. Slightly higher yields. Slightly longer pods.
- Fuller bush.
- The beans were nice and long and slender—and there were more of them. Plants almost fell over due to the heavy yield. Matured about one week earlier.
- Beans were long and more slender.
- Plants appeared stunted all season. Never produced much.

Conclusions

Both varieties grew well and produced good yields of quality beans. Most gardeners gave a slight edge to 'Carson', in many cases due to its fuller and healthier plants. The pods of 'Carson' were lighter yellow in color, tender, and delicious. 'Slenderwax' was very good, but not exceptional.

Trial 8. Bean, Yardlong

Varieties (information from seed catalogs)

'Gita'

78 days. Dark green pods, thin as a pencil and up to 20 inches long. Widely adapted, but grows better under warm conditions. Needs a tall trellis. Black seeds.

'Red Stripe'

80 days. A special Asian variety suited for cool climates. Plants produce good yields of crispy pods with light green skin. Seeds have red and white stripes. Needs a tall trellis.



Data

Data were collected at 10 sites in 2010.

| Trait | 'Gita' | 'Red Stripe' | Same |
|-----------------------------------|-------------|--------------|-----------|
| Germinated best | 67 % | 22 % | 11 % |
| Healthier plants | 75 | 13 | 13 |
| Matured earlier | 83 | 17 | 0 |
| Higher yields | 86 | 14 | 0 |
| More attractive pods | 83 | 17 | 0 |
| Tasted better | 40 | 20 | 40 |
| <i>Preference</i> | 75 | 25 | |
| <i>Recommend to others</i> | 75 | 13 | |
| <i>Overall rating¹</i> | 5.88 | 3.25 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Pods were small (12 inches) when thin; by the time they got larger (18 to 20 inches) the seed in the pods were large. I've never grown these before. They were hard to pick—almost had to cut them from the vine.
- Neither variety seemed to do well in the hot days of summer.
- Very interesting planting.
- Fun to grow.
- Lesson from the summer: things on trellises do not go through hailstorms well.

Comments on 'Gita' Bean

- There is no doubt this is the better of the two varieties.
- Bigger and faster growing plants. Higher yields. Smooth, long, green beans.
- Grew best.
- Better germination, although we had poor germination of both varieties due to two weeks of cold, wet weather after sowing.
- Near 100% germination, compared to 50% for 'Red Stripe'. Produced more beans due to more plants. Pods went to seed faster.

Comments on 'Red Stripe' Bean

- Better tasting. Seemed more heat tolerant.
- Plants turned yellow in summer and died. In comparison, the plants of 'Gita' started to turn yellow, grew slowly, but did not die.
- 'Red Stripe' did little.
- More scarring on the pods.

Conclusions

'Gita' was vastly superior. Its vines were healthier and much more productive. Its pods were smooth and full of flavor. Most gardeners recommended 'Gita', but did not rate it highly. In general, gardeners preferred the taste of "normal" green beans over these yardlong beans. 'Red Stripe' was a poor performer and a big disappointment.

Trial 9. Beet

Varieties (information from seed catalogs)

'Detroit Dark Red'

59 Days. Classic variety. Early, very dark red, and sweet. Thinned plants can be used as greens.

'Red Ace'

50 Days. One of the best all-around beets. The round, smooth, deep red roots develop quickly, with high uniformity. They maintain their sweet tenderness when larger and older. Medium-tall, red-veined greens for bunching.

Data

Data were collected at 25 sites in 2010.

| Trait | 'Detroit Dark Red' | 'Red Ace' | Same |
|-----------------------------------|--------------------|-----------|-------------|
| Germinated best | 44 % | 12 % | 44 % |
| Healthier plants | 32 | 24 | 44 |
| Matured earlier | 27 | 32 | 41 |
| Higher yields | 39 | 26 | 35 |
| More attractive roots | 45 | 27 | 27 |
| Tasted better | 26 | 26 | 47 |
| <i>Preference</i> | 65 | 35 | |
| <i>Recommend to others</i> | 83 | 70 | |
| <i>Overall rating¹</i> | 7.35 | 7.17 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Good germination; healthy plants; loved the sweetness of both.
- Both tasted quite good.
- The plants were lush.
- Both were healthy and hardy.
- Tolerated lots of rain. We got a good yield.
- Yields were about the same—not great. Both were excellent to eat.

Comments on 'Detroit Dark Red' Beet

- Very large, healthy tops; my favorite. Heavy, early producer.
- Dark red color.
- Uniform quality and good yield.
- More vigorous growth—big tops—larger beets—matured earlier!



- Had a swirl pattern which added interest.
- Really produced nice greens and roots.
- Larger roots. Beet greens were better.
- Stronger plants and larger roots.
- More uniform—not too large and sweeter taste.
- Big beets; healthy plant; higher yield; sweet.

Comments on 'Red Ace' Beet

- Earlier and better yield and taste.
- Bigger yield and bigger in size. Definitely will plant 'Red Ace' again.
- Did not germinate as well, but had much nicer plants.
- Didn't mature enough to pick either for roots or greens.
- Matured faster, more hardy, and yielded better.
- Overall better tasting and sweeter. Stored well.
- Did seem to perform slightly better and had a somewhat better taste.
- Earlier; produced more; good flavor.
- Smaller beets; poor yield; poor taste.

Conclusions

Gardeners liked both 'Detroit Dark Red' and 'Red Ace'. Both varieties produced good yields of attractive, sweet roots. Most of our gardeners preferred 'Detroit Dark Red', the most popular beet variety among home gardeners for years. They liked its vigorous growth, lush tops, and dark red roots.

Trial 10. Carrot, Colorful

Varieties (information from seed catalogs)

'Rainbow'

67 days. A colorful array of yellow, white, coral, and orange carrots. The flavor varies slightly depending on root color, but all are tender and sweet. Roots are 7–9 inches long with strong tops. Fun to grow with kids!

'Sugarsnax 54'

68 days. Very colorful and supersweet. The rich orange roots are high in beta-carotene, the key source of vitamin A. Roots are smooth, uniform, 9 inches long, and tapered.



Data

Data were collected at 39 sites in 2010.

| Trait | 'Rainbow' | 'Sugarsnax 54' | Same |
|-----------------------------------|-----------|----------------|-------------|
| Germinated best | 16 % | 18 % | 66 % |
| Healthier plants | 16 | 11 | 73 |
| Matured earlier | 30 | 19 | 51 |
| Higher yields | 24 | 32 | 43 |
| More attractive roots | 29 | 47 | 24 |
| Tasted better raw | 24 | 47 | 29 |
| Tasted better cooked | 18 | 47 | 35 |
| <i>Preference</i> | 28 | 72 | |
| <i>Recommend to others</i> | 64 | 89 | |
| <i>Overall rating¹</i> | 6.70 | 7.61 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Plants of both varieties were dark green and healthy.
- They both germinated great. Plants looked great all summer. Both varieties had roots at least a foot long and they were fat as well! Tasted the same when cooked.
- Both varieties did well. Late heat and early cool weather did not seem to be a problem.
- Both produced huge carrots—bigger than usual.
- They both were nice plants. I really liked the looks of both of these carrots.
- I wasn't overly impressed with the yield from either variety.
- Very healthy. Very colorful. Tasted very good.
- Neither variety was sweet or stored well.

Comments on 'Rainbow' Carrot

- Its color was weaker.
- Much sweeter in our blind taste test.
- Slightly earlier. Better yield and much sweeter taste.
- Bushier plants. Need to harvest early as they grow very large.
- We liked the taste better—raw and cooked.
- The root tops turned green very quick.
- Its color was not as pleasing, but they definitely taste better.
- Straighter roots.
- The white carrots were not as sweet; the pale orange ones were really good.
- My family did not care for this variety at all, whether cooked or raw.
- Seemed sweeter.
- More bland/lacking in flavor.
- My kids liked 'Rainbow' for the colors. My daughter loved picking 'Rainbow' to see the colors. 'Rainbow' is fun for kids. We will plant these again if it makes the kid eat veggies! They looked nice on salads and on the table too. Tasted a little bitter when raw.
- Got fat—a lot of them split. Roots grew 8–10 inches long (two inches shorter than 'Sugarsnax 54') The colors were great. They looked nice in a relish tray but they did not sell well at the market.
- I did not like the appearance of 'Rainbow'. It was mostly white and dull. It reminded me of parsnips.
- Nice shape and good taste and a variety of colors. Carrots were longer and straighter.
- More roots with forks.

More Comments on 'Rainbow' Carrot

- Loved its colors, but some have a squash flavor.
- Didn't care for its colors.
- Really enjoyed its flavor. Its roots were similar in size from top to nicely rounded tip. The yellow ones were very attractive when cooked. Disappointed that I got no red or purple. White ones are not as attractive. Seems to be doing better in storage.
- Tasted good; then got 1+ inches around and then got harder to chew and tasted flat.
- Plants were much bigger and healthier looking. Much higher yield. Roots have beautiful colors but are not as sweet and have a wood texture.

Comments on 'Sugarsnax 54' Carrot

- Kids preferred this variety.
- I like its orange color. A little better flavor—both raw and cooked.
- Roots were not smooth. Harder to harvest in a heavy clay soil because of their length.
- Tasted better when raw. Sweeter. Roots were larger and more attractive in size.
- Long, narrow, deep orange roots. No woody centers. Sweeter.
- Twice the germination; grew twice as well; higher yields; roots looked more attractive.
- Its orange color seems more natural.
- Roots had multiple arms. Much sweeter, more flavorful. Nice large size.

- Flavor was excellent.
- I prefer its "typical" orange color and flavor.
- Tasted better—more sweet. Looked nice.
- Roots were smoother. Better overall performance.
- Nice carrots—long and straight. Looked good and tasted great. One carrot was 15 inches long.
- Grew better. Green tops were much thicker and fuller. Yielded much more. I have never ever seen such long carrots in my life—14 inches long—and nice and straight. Tasted good and sweet.
- I like the orange color of its carrots. It had a stronger carrot flavor.
- More split roots.
- Sweeter and more attractive roots.
- Sweet carrot flavor.
- Roots were much larger and were hard to dig.
- Didn't get as big and tasted better. Stayed hard longer.
- Much sweeter and had nice, big straight, tapered roots.
- Had many side roots.

Conclusions

Gardeners loved 'Sugarsnax 54' for its bright orange color and outstanding flavor (both raw and cooked). It is a solid performer. Most gardeners liked 'Rainbow', but some felt the lighter-colored roots lacked flavor. Kids especially appreciated the variety of colors, but if that is paramount they may prefer a variety that included purple and red roots, too.

Trial 11. Carrot, Orange

Varieties (information from seed catalogs)

'Mokum'

54 days. A very early variety 'Nantes' type with very sweet flavor. Slender roots are good for bunching. Short tops. Widely adapted.

'Nelson'

56 days. Sweet flavor and outstanding tolerance to heat. The roots of this hybrid are deep orange, smooth, 6 inches long, with blunt tips. Early. Medium tops.



Data

Data were collected at 78 sites in 2009 and 41 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|---------|-------------|-------------|---------|-------------|-------------|----------------|-------------|-------------|
| | 'Mokum' | 'Nelson' | Same | 'Mokum' | 'Nelson' | Same | 'Mokum' | 'Nelson' | Same |
| Germinated best | 28 % | 25 % | 47 % | 33 % | 21 % | 45 % | 30 % | 24 % | 46 % |
| Healthier plants | 14 | 24 | 61 | 15 | 28 | 58 | 14 | 25 | 60 |
| Matured earlier | 28 | 24 | 49 | 15 | 29 | 56 | 24 | 26 | 51 |
| Higher yields | 30 | 28 | 42 | 20 | 38 | 43 | 27 | 31 | 42 |
| More attractive roots | 26 | 46 | 28 | 21 | 45 | 34 | 24 | 46 | 30 |
| Tasted better raw | 24 | 40 | 37 | 29 | 37 | 34 | 26 | 39 | 36 |
| Tasted better cooked | 18 | 25 | 57 | 23 | 39 | 39 | 20 | 30 | 51 |
| <i>Preference</i> | 41 | 59 | | 32 | 68 | | 38 | 62 | |
| <i>Recommend to others</i> | 69 | 77 | | 73 | 83 | | 70 | 79 | |
| <i>Overall rating¹</i> | 6.85 | 7.42 | | 6.68 | 7.63 | | 6.79 | 7.49 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both germinated well and had good foliage with strong tops. Both were tasty.
- Both were very healthy. They both produced very well! I love these carrots.
- Both grew nicely and I would grow both again. Matured at the same time. Very few odd-shaped carrots. Both had good taste but I didn't think they were overly sweet or tasty.
- Lots of carrots. Beautiful tops.
- Both had strong tops.
- Both tasted great raw and cooked.
- Both have very long roots.
- Both varieties grew well and tasted good.
- Both produced very well. Both make excellent cake and bread!
- Both produced very well. I had enough carrots to share with my sister and mother.

- Both were generally smaller in size than normal carrots.
- Both produced mostly bizarre and multi-legged carrots.
- Neither variety did well in our cool, late spring/early summer. Neither was as sweet or flavorful as I would like—most disappointing.

2010

- Healthy plants, good yields, and healthy roots for both varieties.
- Some of the best tasting carrots ever.
- Both varieties were much better than store-bought carrots.
- Both produced very large carrots: about 8 inches long and 3 inches around.
- They were both beautiful until the mice found them. They were so similar in taste. I have tasted sweeter carrots than these.
- Both were nice and crisp.

Comments on 'Mokum' Carrot

2009

- Tasted sweeter and had a bigger burst of flavor.
- Sweeter, more carrot flavor.
- Larger, thicker roots. Very sweet and crisp.
- Much larger, more even roots. Very good!
- Many had odd roots.
- Better tasting and overall bigger carrot.
- Roots were straighter.
- Carrots were longer and thinner. Sweeter when raw and better tasting when cooked.
- Looked very good! Tasted very sweet!
- Nice carrot flavor—both cooked and raw. Nice even color.
- Longer roots; didn't grow into funny shapes; easy to grow.

2010

- All carrots were nice and straight.
- Big, knobby roots. Better taste—sweet.
- Matured a few days earlier. Slightly higher yields, but had more carrots with multiple roots.
- Tasted sweeter than 'Nelson' when eaten as a raw carrot.
- Nice, dark green, thick tops.
- More flavor and more attractive roots. Their roots were thicker and easier to dig in our clay soil.
- Short and stubby roots.
- Very poor root form, with roots and splits. Sweeter and more tender.
- Better germination rate and matured a few days sooner. Nicely shaped, slender carrots. Sweeter tasting.
- More carrots with multiple roots and double legs.
- Roots were slimmer and longer.
- Nicely shaped carrots.
- Both tasted good, but this one matured earlier.

Comments on 'Nelson' Carrot

2009

- Deep orange color and smoother shape. Not at all crooked either. Easier to clean.
- Smooth skins—rich orange color. Crunchy and sweet. Delicious fresh, cooked, and frozen.
- Roots split less often. The best carrots I have ever planted—grew long and straight.
- Plants looked better and had better foliage. Matured about one week earlier. Nice, straight carrots, but some had green cores. Canned much better than 'Mokum'.

- Very sweet raw and good flavor when cooked.
- Exhibited these carrots at the North Dakota State Fair, Future Farmers of America Division and got Reserve Champion. Sweeter and look nice.
- Nicer, straighter roots for peeling.
- Tasted better (more flavor) and better root shape.
- Straighter roots and a lot sweeter.
- Sweet when cooked, but rather flavorless raw.
- Very nice and straight. No fingers on them.
- More crunchy and sweeter.
- A bit nicer looking. We leave our carrots in the ground until frost, for sweetness. 'Nelson' did not overgrow.

2010

- Better flavor; higher yields. Our grandchildren ate them right out of the garden!
- Nicer looking and sweeter flavor.
- Nice shape.
- Grew slightly better in the garden.
- Higher yields (16 vs. 9 pounds).
- Better taste and yield.
- Seemed to be sweeter at a young age. Lots of deformed carrots.
- Tasted sweeter than 'Mokum' when cooked.
- Bigger and more robust roots (almost twice the size) and slightly better flavor.
- I liked its sweet and tangy taste. It cooked up nice as well.
- Its roots did not fork.
- Seemed a bit crunchier.
- Sweeter taste and is nice and crisp. It also had healthy plants and good yields.
- So smooth and sweet.
- Taller greens, a stronger bottom root, and a better cooked carrot.
- Sweeter and crispier.
- Longer and thicker carrots. A little firmer carrot after cooked.
- Sweeter and a nicer formed carrot.
- Good color and flavor. A little sweeter when eaten raw; good texture when cooked.

Conclusions

'Mokum' and "Nelson" grew well and produced lots of tasty carrots in most gardens. The majority of gardeners preferred 'Nelson'. They liked its remarkably straight, smooth-skinned, and very uniform carrots. Many gardeners felt it tasted better, especially when eaten raw. Several gardeners noted 'Mokum' produced larger roots and its roots were more subject to forking.

Trial 12. Carrot, Purple

Varieties (information from seed catalogs)

'Cosmic Purple'

90 days. The beautiful reddish-purple exterior provides an attractive contrast with the bright orange flesh and small yellow cores. Smooth, tapered roots grow 6 to 8 inches long. Very sweet.

'Purple Haze'

70 days. The tapered 10-inch roots are smooth with purple exterior and bright orange centers. The color presentation when cut is vivid and the flavor of the raw carrots is sweet. Flavor when cooked is also excellent, but the purple color dissolves with cooking. Sturdy tops.



Data

Data were collected at 19 sites in 2010.

| Trait | 'Cosmic Purple' | 'Purple Haze' | Same |
|-----------------------------------|-----------------|---------------|-----------|
| Germinated best | 31 % | 44 % | 25 % |
| Healthier plants | 19 | 19 | 63 |
| Matured earlier | 33 | 0 | 67 |
| Higher yields | 33 | 40 | 27 |
| More attractive roots | 43 | 36 | 21 |
| Tasted better raw | 33 | 33 | 33 |
| Tasted better cooked | 36 | 18 | 45 |
| <i>Preference</i> | 45 | 55 | |
| <i>Recommend to others</i> | 84 | 78 | |
| <i>Overall rating¹</i> | 7.32 | 7.50 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both are a great option for ND growers. I liked the taste of both.
- Both produced giant, healthy carrots. No taste difference.
- I enjoyed growing purple carrots. My grandson and I had a vegetable stand ... and we really had a lot of comments about the purple carrots, but they did not sell well. My nephew owns a café; he cut them into carrot sticks and used them in his relish trays; it looked really pretty and they had a lot of interesting comments.
- Both were healthy. Both definitely need a good chill to develop sweetness.
- Both had a lot of long roots.
- Both made an excellent carrot cake.

Comments on 'Cosmic Purple' Carrot

- Really cool color. Much easier to grow.
- Brighter and more colorful peel. More intense carrot flavor.
- I liked the look and taste better. Roots were bigger and more uniform.
- Roots were so large and had such personality that I can't help loving them. Some came out looking like mandrakes with several appendages!
- Grew large and had splits late in the season. Had a more pure carrot taste when cooked.
- Roots were fatter and often cracked.

Comments on 'Purple Haze' Carrot

- Slightly larger yields. Purple color extends deeper in the root. Slightly sweeter and better texture.
- Plants were more vigorous and roots were larger. Skin was darker and duller and the depth of the color is about 1/8" compared to just the peel on 'Cosmic Purple'.
- Longer (8 inches compared to 4 inches for 'Cosmic Purple') and tasted better.
- Straighter roots.
- They were a nice size and didn't crack.

Conclusions

Gardeners enjoyed growing both varieties. Most gardeners preferred 'Purple Haze' for its long, straight, dark purple roots. Gardeners were especially delighted with the brilliant red-purple skin of 'Cosmic Purple', but this coloration was shallow and the roots were more subject to cracking and forking.

Trial 13. Carrot, White

Varieties (information from seed catalogs)

'Crème de Lite'

70 days. The pale yellow roots are very uniform and attractive. Roots grow up to 9 inches long with tapered ends.

'White Satin'

68 days. Pure white roots have a crisp, sweet flavor. Roots grow 8 inches long. Plants are tolerant of adverse weather. Large, vigorous tops.



Data

Data were collected at 6 sites in 2010.

| Trait | 'Crème de Lite' | 'White Satin' | Same |
|-----------------------------------|-----------------|---------------|--------------|
| Germinated best | 0 % | 0 % | 100 % |
| Healthier plants | 40 | 20 | 40 |
| Matured earlier | 20 | 20 | 60 |
| Higher yields | 60 | 0 | 40 |
| More attractive roots | 67 | 33 | 0 |
| Tasted better raw | 40 | 0 | 60 |
| Tasted better cooked | 0 | 25 | 75 |
| <i>Preference</i> | 67 | 33 | |
| <i>Recommend to others</i> | 67 | 50 | |
| <i>Overall rating¹</i> | 7.67 | 6.67 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- White carrots have every much the taste of orange carrots. I enjoyed growing white carrots; they were tasty, crisp, long, and easy to clean.
- Not very much difference.
- Both were healthy.
- These are not attractive to me. They look like wild roots. Mild flavor—maybe too mild.

Comments on 'Crème de Lite' Carrot

- Larger carrots (172 carrots with a total weight of 12.6 pounds, compared to 135 carrots with a total weight of 6.4 pounds). Long, thin and tapered roots. Very sweet and delicate flavor; better texture. Plants were bigger and darker green. This is better overall.
- Had a better flavor.
- Long, tapered roots. Had a better texture.
- Fuller plants. Bigger and nicer looking roots. Grew great and tasted good.

Comments on 'White Satin' Carrot

- Short, stubby roots. More traditional carrot flavor. A little sweeter.
- Plants looked fuller. A nice long carrot and easy to clean.
- Some of the roots had black spots on them.

Conclusions

Few gardeners were interested in growing white carrots. These gardeners liked, but did not love these varieties. They noted these carrots were easy to clean and had a delicate flavor. 'Crème de Lite' rated higher for yields and gardeners liked its slender, tapered roots.

Trial 14. Carrot, Yellow

Varieties (information from seed catalogs)

'Yellow Sun'

75 days. Golden yellow roots grow 6–7 inches long with blunt tips. Flavor best when cooked.

'Yellowstone'

75 days. Pure yellow roots grow 8 inches long with broad shoulders and strong tops. Roots taste best when cooked.



Data

Data were collected at 6 sites in 2010.

| Trait | 'Yellow Sun' | 'Yellowstone' | Same |
|-----------------------------------|--------------|---------------|------------|
| Germinated best | 25 % | 50 % | 25 % |
| Healthier plants | 0 | 0 | 100 |
| Matured earlier | 50 | 25 | 25 |
| Higher yields | 60 | 0 | 40 |
| More attractive roots | 60 | 20 | 20 |
| Tasted better raw | 25 | 0 | 75 |
| Tasted better cooked | 50 | 0 | 50 |
| <i>Preference</i> | 80 | 20 | |
| <i>Recommend to others</i> | 100 | 40 | |
| <i>Overall rating¹</i> | 8.67 | 5.80 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both had beautiful, feathery tops. Both had attractive roots—neither got fat or woody. Excellent flavor and colorful in salads and mixed vegetables.

Comments on 'Yellow Sun' Carrot

- Ready first. Roots never grew past 6 inches. Lovely true yellow color. I liked how the roots were all the same size.
- Roots were more yellow and sweeter.
- Was early and produced well. Large carrot. Flavor is very good.
- More uniform roots. Roots were large and fat—like a 'Chantenay'.
- I prefer this variety for its stocky roots.

Comments on 'Yellowstone' Carrot

- Very long, slender roots—over 6 inches long. Roots have a slight paleness or greenish tint to it.
- Green tint on top of carrot. Tasted like a turnip.

Conclusions

'Yellow Sun' was praised for its golden yellow roots and sweet taste. Every gardener liked it. 'Yellowstone' roots were more slender but were lighter colored and sometimes had a greenish tint.

Trial 15. Cucumber, Pickling

Varieties (information from seed catalogs)

'Alibi'

49 days. Attractive, dark green fruits are good for fresh eating or pickling. Vines are shorter than those of most varieties. High yield potential. White spines.

'H-19 Little Leaf'

57 Days. Compact vines produce good yields even under stress. Twenty or more fruits may ripen on a plant at the same time. Vines continue to bear heavily until frost. Leaves are only half of normal size, making it easy to find the fruit. Vines tolerate heat, cold, and drought.

Data

Data were collected at 35 sites in 2010.

| Trait | 'Alibi' | 'H-19 Little Leaf' | Same |
|-----------------------------------|-------------|--------------------|------|
| Germinated best | 56 % | 25 % | 19 % |
| Healthier plants | 42 | 24 | 33 |
| Matured earlier | 62 | 34 | 3 |
| Higher yields | 45 | 39 | 16 |
| More attractive cukes | 50 | 33 | 17 |
| Tasted better | 40 | 23 | 37 |
| <i>Preference</i> | 59 | 41 | |
| <i>Recommend to others</i> | 71 | 55 | |
| <i>Overall rating¹</i> | 7.21 | 5.88 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- This was a great year for cucumbers! I pickled over 50 quarts and gave bags and bags away! Both varieties tasted amazing! I would recommend this trial to all gardeners who love cukes!
- Both had nice, smaller cukes ideal for pickling.
- Both were great producers.
- One or two plants are the most needed for a garden.
- Both were very good producers.
- Both made good pickles.
- Did not notice any taste difference—both were good.
- Froze on May 8 in the ground—no emergence.



Comments on 'Alibi' Cucumber

- Earlier by two weeks. Healthy looking plants—very impressed—these plants were more productive. Nice, long cukes.
- Better germination and more yield.
- Cukes were the right size for pickling. Plants were lush and produced first (13 July).
- Good early producer and produced all season. Liked the taste.
- Produced the first cukes.
- Produce several cukes while 'H-19 Little Leaf' produced very few.
- Perfect size for pickling.
- A week earlier. Straighter cukes. Less mild cucumber taste. Clearly better in every category.
- Nicer pickler, despite less yield.
- Two weeks ahead. All around better—'Alibi' had bigger everything.
- Made cute little cukes perfect for pickles.
- Higher yield (132 versus 110 cucumbers).
- Earlier (by three weeks) and the cukes were fleshier. Smaller and fewer seeds; cukes were also a little bigger.
- Produced enough for small batches of pickles, although not all good-looking cucumbers; then continued to bloom and produce a few cucumbers until frost. The end-of-season cukes were a bit more pinched at the ends.
- Firmer fruits.
- Picked easier.

Comments on 'H-19 Little Leaf' Cucumber

- Taste was wonderful when fresh. Nice pickles. Strong vines.
- Later producer, but good yield and taste.
- Really produced and is still producing (September 15).
- Slower start and just didn't seem to bloom very much.
- Lots of little cucumbers for pickling. Two plants produced 5 gallons every 3–4 days! Nice.
- I liked the small vine and leaves; they kept producing and blooming. The cukes were smaller even when they were missed on a previous picking.
- This variety was awesome! The plants were healthier and they were still flowering and producing cucumbers until September 19. 'Alibi' vines were drying at the end of August.
- Had tons of blossoms, but just didn't set as well.
- Few cukes and they were small.
- Easier to pick and therefore we were able to find the little pickles before they turned into giant cukes.
- Could see the cukes better and easier.
- Did not grow well. Little tiny plants and did not produce.
- My favorite by far! It had very small leaves, but lots of them, long vines, with flowers and tons of small/medium cucumbers—perfect for pickling—note of them got large, fat and yellow if left too long on the vine. I recommend this for someone who doesn't have a lot of space and likes to make pickles. I will grow 'H-19 Little Leaf' next year!
- Much healthier, vigorous plants with 3–4 times the yield.
- I like small cucumbers for salads and pickling. I think this variety stayed crisper.
- Bore fruit longer—withstood a mild frost.
- Plants looked stunted and did very little spreading until late in the season. Produced only a couple of cucumbers all season.
- Cucumbers stayed smaller and produced high yields of uniform-size pickling cukes.

Conclusions

'Alibi' received higher ratings than 'H-19 Little Leaf' in all traits. Its first crop was approximately 10 days earlier and gardeners were impressed with the shape, firmness, and deep green color of its fruits. The vines of 'H-19 Little Leaf' were slower to get started but then impressed gardeners with its late season yields. Its cucumbers were uniform in size and did a good job of maintaining their small size in the field.

Trial 16. Cucumber, Slicing Asian

Varieties (information from seed catalogs)

‘Orient Express II’

64 days. Slender fruits grow 12 inches long and only 1 inch in diameter. Burpless quality. Disease-free vines produce heavy yields. Mild flavor. Trellis for straight fruits.

‘Suyo Long’

61 Days. Sweet, ribbed cucumbers grow up to 15 inches long. Burpless quality and bitter-free. Traditional variety from China. Trellis for straight fruits.



Data

Data were collected at 10 sites in 2010.

| Trait | ‘Orient Express II’ | ‘Suyo Long’ | Same |
|-----------------------------------|---------------------|-------------|-----------|
| Germinated best | 78 % | 0 % | 22 % |
| Healthier plants | 44 | 0 | 56 |
| Matured earlier | 100 | 0 | 0 |
| Higher yields | 60 | 20 | 20 |
| More attractive cukes | 43 | 0 | 57 |
| Tasted better | 44 | 11 | 44 |
| <i>Preference</i> | 100 | 0 | |
| <i>Recommend to others</i> | 90 | 30 | |
| <i>Overall rating¹</i> | 8.22 | 5.56 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Cukes of both varieties looked very nice.
- I would prefer a straighter cuke. These tend to curl too much. Loved the long straight ones.
- Both made good pickles.
- Both got a wilt in the leaves in mid August. This is the first time I have grown Asian cucumbers. Both had good flavor, but I did not care for either variety.
- Some of the most productive cucumbers I have ever grown!

Comments on ‘Orient Express II’ Cucumber

- Provided enough for the whole neighborhood.
- Produced 2–3 weeks earlier. Produced three times more cukes. Amazing yield on compact plants!
- Near 100% germination. The large leaves of its vines spread to cover cukes. Wonderful taste—long—uniform cuke—only 1.0 to 1.5 inches in diameter. Very small seeds. High yielding.
- Clearly more productive and prolific. It produced fruits a week earlier than ‘Suyo Long’ and produced more abundantly. The fruits were slightly sweeter and more attractive. Germination rate was double that of ‘Suyo Long’.
- Germinated better and plants grew much better overall.
- Produced earlier.

Comments on ‘Suyo Long’ Cucumber

- Longer vines. Cukes have more flavor.
- Late in coming but did produce a large quantity.
- Cukes were too skinny. They just didn’t appear to be a cucumber. I served them and others would ask what they were.

Conclusions

Gardeners were extremely impressed with ‘Orient Express II’. Its productivity was amazing. Its cucumbers were very slender, attractive, delicious, and burpless. Every gardener recommended it. ‘Suyo Long’ could not compete with it.

Trial 17. Cucumber, Slicing Beit Alpha

Varieties (information from seed catalogs)

'Diva'

58 Days. Gourmet quality. The all-female flowers don't require pollen to set fruit, so yields are higher and fruits are nearly seedless. Lots of bright green, spineless cukes. No peeling is required of its skin.

'Sultan'

58 Days. Crispy, sweet cukes are produced on a vigorous vine. A Middle Eastern type that yields well through summer.



Data

Data were collected at 19 sites in 2010.

| Trait | 'Diva' | 'Sultan' | Same |
|-----------------------------------|-------------|-----------|-------------|
| Germinated best | 24 % | 35 % | 41 % |
| Healthier plants | 29 | 43 | 29 |
| Matured earlier | 29 | 64 | 7 |
| Higher yields | 46 | 54 | 0 |
| More attractive cukes | 30 | 30 | 40 |
| Tasted better | 50 | 8 | 42 |
| <i>Preference</i> | 50 | 50 | |
| <i>Recommend to others</i> | 58 | 58 | |
| <i>Overall rating¹</i> | 5.86 | 5.47 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both were nice, long and slender cukes. Both tasted great; they had thin skins I didn't have to peel; they were very crisp and tasty with small seeds.
- We like the taste of both varieties.
- Both had high yields and lacked bitterness.
- Both varieties produced nice plants but yield was overall fair at best.
- Our other cucumbers produced 8-inch cukes before either variety flowered.
- Neither germinated well. Both produced nice looking cucumbers with nice flavor.
- Both were very tasty, but did not keep well. They had to be used right away or they got mushy.
- The freeze on May 8 prevented any seeds from germinating.
- Rabbits liked both varieties equally as well.

Comments on 'Diva' Cucumber

- Grew better and produced more.
- Gave the most cukes (65 vs. 52). The vines weren't as aggressive and took up less space. It was slower to get started, but once it got started it was good.
- Produced slightly more. I like the look of its cukes better. Much better taste.
- Produced more and was more vigorous. Tasted better.
- Cukes were light green—not as pretty.

Comments on 'Sultan' Cucumber

- Tasted way better.
- Performed better overall.
- Healthier plants.
- More plants came up. Cukes weren't as uniform. They were harder to eat because the seeds were big.
- Enormous yield.
- Neither was great but 'Sultan' was tougher.
- Developed a blight disease.
- Had some browning on the leaves. Produced a few days earlier and produced 20% more overall. Brighter green cucumbers.

Conclusions

Gardeners enjoyed the quality of cucumbers produced by both varieties, especially the taste of 'Diva'. Several gardeners found the vines of 'Sultan' to be more vigorous, setting fruits earlier in the season and producing higher yields overall. In the big picture, neither variety excelled. Concerns include lack of vine vigor (especially when young) and low yields.

Trial 18. Cucumber, Slicing Burpless

Varieties (information from seed catalogs)

‘Sweet Slice’

63 days. Very mild and sweet. Pick when the fruit is 6–8 inches long for best flavor, and the plants will produce excellent yields over a long season.

‘Sweeter Yet’

45 Days. Very early. Dark green, crisp fruit with a pleasingly sweet flavor. Best harvested at 10–12 inches. Compact, semi-bush plants bear continuously.



Data

Data were collected at 77 sites in 2009 and 26 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|---------------|---------------|-------------|---------------|---------------|-------------|----------------|---------------|-------------|
| | ‘Sweet Slice’ | ‘Sweeter Yet’ | Same | ‘Sweet Slice’ | ‘Sweeter Yet’ | Same | ‘Sweet Slice’ | ‘Sweeter Yet’ | Same |
| Germinated best | 37 % | 17 % | 45 % | 35 % | 19 % | 46 % | 36 % | 18 % | 45 % |
| Healthier plants | 22 | 32 | 47 | 35 | 15 | 50 | 25 | 28 | 48 |
| Matured earlier | 49 | 40 | 11 | 68 | 28 | 4 | 54 | 37 | 9 |
| Higher yields | 30 | 50 | 20 | 32 | 48 | 20 | 31 | 49 | 20 |
| More attractive cukes | 38 | 40 | 21 | 48 | 24 | 28 | 41 | 36 | 23 |
| Tasted better | 29 | 27 | 45 | 24 | 40 | 36 | 28 | 30 | 43 |
| <i>Preference</i> | 47 | 53 | | 43 | 57 | | 46 | 54 | |
| <i>Recommend to others</i> | 67 | 65 | | 62 | 69 | | 66 | 66 | |
| <i>Overall rating¹</i> | 6.85 | 7.42 | | 6.81 | 7.07 | | 6.84 | 7.33 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both did better than the varieties I’ve used in previous years. Both were vigorous growers with lots of fruit.
- They both grew lots of cucumbers. I supplied lots of friends with cucumbers.
- Both had great vines, excellent yields, attractive cukes, and great flavor.
- Both varieties will satisfy the palette. Their plants looked tough; didn’t think they would yield much; but were impressed on how many cukes were produced by just a few plants.
- Neither became “seedy” when large.
- Many fruits were misshaped.
- Really didn’t like either of them. They both produced cukes that curled.

- Not much difference between the varieties—both were good producers.
- We had endless cukes from these trials! Kept producing until frost.
- Both had odd-shaped cucumbers. Not uniform. Skins were tough and spiny. Neither seemed to have flavor.
- Both had strong plants, even as indoor seedlings. Once the harvest started we ate them non-stop, even in the combine!

2010

- Both had so much fruit I couldn’t eat fast enough.
- Both produced well. Both had great flavor.
- Both varieties tended to curl. Both were very good and crisp—never bitter and no burps!
- They twisted up and had brown on them. Both did not taste as good as ‘Raider’ in the garden.

Comments on 'Sweet Slice' Cucumber

2009

- The vines were healthier and the cukes were sweeter and more uniform.
- Produced nine days earlier and produced later into the fall. The cucumbers seemed to have a firmer crunch and were uniform in shape.
- Firmer fruits and tasted sweeter.
- Cukes were straighter but shorter.
- They were a nice slicer; not prone to getting fat!
- Plants were not as prone to browning. They produced one week earlier and produced 30% more cucumbers. A nice mild, juicy flavor.
- Fruit had a tendency to curl.
- Fruit were straighter and longer—easier to slice. Seeds seemed smaller.
- Plants were hardier in early spring. Cucumbers had tough skin and were not real tasty.
- Cucumbers were more slender—and less seeds. The skin was a little more tender.
- Even-sized cukes. Great for pickling.

2010

- Straighter cucumbers for slicing.
- Delicious. Thin skinned with small seeds. Succulent cucumbers and very prolific.
- Produced longer.
- A nice cucumber—grew straight, good flavor. It truly was good and sweet.
- More vigorous plants. Ready one week earlier. Higher yield. The cukes didn't curl. They were slender with crisper flesh and smaller seeds.
- Great for making pickles—all the slices were the same size. Easy to peel; mild flavor.

Comments on 'Sweeter Yet' Cucumber

2009

- They had nicer plants and the cukes were a lot like the more expensive English cukes at the store. They were a little curled, but crisp and good!
- Fantastic yield, even with cold summer. Fruits look almost like an English cucumber. Incredible taste. Kept producing even after we had mildew problems. We liked both varieties but 'Sweeter Yet' was a favorite of everyone.
- Better looking plants. Produced cukes three days earlier. Produced larger and better looking cukes. Tasted great.
- Very vigorous grower and very prolific yields. Cukes had better form, size and color, but were a bit sour tasting. Inner seeds were bigger.

- Steady stream of consistent fruit. We ate 5 gallons of pickles and still had plenty to share!
- Much higher yields later in the season.
- Very few seeds inside fruit.
- Nice shaped (straight and uniform) fruits that tasted great.
- Sweet taste and the fruits are long and narrow—loved them!
- Healthier plants and produced much better.
- The cucumbers taste good (extremely good in cucumber salad), but sometimes look funny.
- Produced like no other cucumber. I was surprised how many we got. The cucumbers were slim and long. Milder flavor. The cucumbers did not get so bitter—you can eat the skins—seed were no problem.
- A little more productive. Sweet and juicy—none were bitter tasting.
- Were very tasty! Produced well.
- Bigger yield and longer harvest season. Good taste.

2010

- Better yield (64 versus 48 cukes). We prefer its taste.
- Twice as many cucumbers. We liked them pickled.
- Produced more and kept producing for a longer period of time.
- Didn't have a "normal" cuke shape. Some looked more like gourds. Better taste.
- Better tasting, somewhat milder taste, too. Never a bitter cuke in the bunch!
- Cukes were straighter and deeper colored.
- Good yield. Cukes were good size and shape. I really don't care for it due to a lack of flavor.
- Better tasting and gave a consistent supply of fruit for the entire season.
- Good taste and its cukes did not size up as fast.

Conclusions

Some results from this trial are unexpected. 'Sweeter Yet' is an ultra-early variety and yet it produced cukes later than 'Sweet Slice' at many of the sites. 'Sweet Slice' has a reputation for productivity, but it produced lower yields than 'Sweeter Yet' at many of the sites. Neither variety excelled, but gardeners generally liked both. About half of the gardeners liked the yields and slimmer cucumbers of 'Sweeter Yet'. The other half preferred the straighter, more uniform cucumbers of 'Sweet Slice'.

Trial 19. Cucumber, Slicing Classic

Varieties (information from seed catalogs)

'Longfellow'

70 days. Attractive fruits are 12–14 inches long by 2.5 inches in diameter. Preferred by growers because fruits are perfect size for shipping to first-class markets.

'Marketmore 76'

68 days. Popular main-season slicer. Disease-resistant vines set dependable yields of glossy, dark green fruits.



Data

Data were collected at 13 sites in 2010.

| Trait | 'Marketmore 76' | | Same |
|-----------------------------------|-----------------|-------------|-------------|
| | 'Longfellow' | 76' | |
| Germinated best | 25 % | 33 % | 42 % |
| Healthier plants | 45 | 36 | 18 |
| Matured earlier | 25 | 58 | 17 |
| Higher yields | 27 | 36 | 36 |
| More attractive cukes | 18 | 55 | 27 |
| Tasted better | 10 | 40 | 50 |
| <i>Preference</i> | 31 | 69 | |
| <i>Recommend to others</i> | 54 | 69 | |
| <i>Overall rating¹</i> | 6.33 | 7.08 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both had healthy plants. Both produced an adequate amount of cucumbers. I would recommend both varieties as acceptable cucumbers.
- Neither had a taste we enjoyed. The fresh cucumber taste was lacking.
- Neither did well enough to evaluate.

Comments on 'Longfellow' Cucumber

- Plants were greener and larger. Did not seem to have a very spiny peel. They were smoother and had a higher yield.
- The skins were more tender and they were tastier.
- Cucumbers were too large.
- Had a rough texture and got fat quickly.
- Showed more stress due to hot weather.

Comments on 'Marketmore 76' Cucumber

- Much earlier. More cukes, straighter cukes, and much healthier plants later in the summer.
- Nice and long (8–12 inches) slicing cukes with good skin and dark color. Not as susceptible to mildew.
- Dark and smooth cukes. Juicy texture. Tastes good, just like I remembered as a kid. Produced into October.
- Better in every way.
- Really produced.
- More foliage, which made it harder to pick. Better resistance to hot weather.

Conclusions

'Marketmore 76' gave a solid, although not a spectacular performance. Its fruits were dark green, smooth, and slower to become overmature. It was not as susceptible to powdery mildew and maintained its production late into the season. The vines of 'Longfellow' were vigorous, but this variety's performance otherwise was not noteworthy. Neither variety could match the yields or fruit qualities of the best hybrids.

Trial 20. Cucumber, Slicing Standard

Varieties (information from seed catalogs)

'General Lee'

66 days. Very productive, main-season slicer. Disease-resistant vines set good yields even under adverse conditions. Dark green fruits with white spines.

'Raider'

52 Days. Dependable early slicer. High yields of fancy, dark green fruits. Disease-resistant vines.



Data

Data were collected at 19 sites in 2010.

| Trait | 'General Lee' | 'Raider' | Same |
|-----------------------------------|---------------|-------------|-----------|
| Germinated best | 25 % | 50 % | 25 % |
| Healthier plants | 47 | 20 | 33 |
| Matured earlier | 36 | 43 | 21 |
| Higher yields | 62 | 23 | 15 |
| More attractive cukes | 38 | 46 | 15 |
| Tasted better | 33 | 0 | 67 |
| <i>Preference</i> | 58 | 42 | |
| <i>Recommend to others</i> | 78 | 61 | |
| <i>Overall rating¹</i> | 7.45 | 7.02 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- They both did very good.
- The plants of both varieties were healthy. Both produced nice cukes and both tasted very good.
- You don't need many plants to supply your family and more.

Comments on 'General Lee' Cucumber

- Plants looked better. Most of the cucumbers were consistent in size and taste. Produced 5–8 more cucumbers.
- More compact plant. Adapted well to the trellis. Produced really well and kept producing a couple weeks longer than 'Raider'.
- Tasted a little better.
- Produced over a longer period.
- It had great flavor and produced a lot even in wet conditions.
- More uniform shape; less hollow inner spots.

Comments on 'Raider' Cucumber

- Germinated best. Produced more cukes early, but 'General Lee' produced more later.
- Both varieties are good, but I recommend 'Raider' for being earlier and more prolific.
- Matured 3–5 days earlier.
- Higher yields (102 vs. 73 cukes) and healthier plants.
- Better germination and produced earlier—yields evened out later.
- The cukes had a nice shape.
- Produced cucumbers two full weeks earlier. Cukes were larger.
- More attractive, larger cukes.
- Did not store as well.

Conclusions

Most gardeners preferred 'General Lee' although the vines of 'Raider' got off to a strong start and produced good yields in the early season. Gardeners were impressed with the health, vigor, and productivity of the 'General Lee' vines throughout the summer. The qualities of cucumbers for both varieties were acceptable with neither variety holding a decided edge.

Trial 21. Greens, Mizuna

Varieties (information from seed catalogs)

'Kyona Mizuna'

21 days baby, 40 days full size. Unique Japanese mustard with pencil-thin, white stalks. Deeply cut leaves are distinctive. Mild flavor. Add to salads or can be cooked in stir fries. Regrows quickly after cutting.

'Mizuna Purple'

21 days baby, 40 days full size. Purple leaf edges add a delicate touch to this mizuna. The purple color becomes more prominent as plants mature. Plants readily outgrow after cutting. A colorful addition to salads. Mild.



Data

Data were collected at 4 sites in 2010.

| Trait | 'Kyona Mizuna' | 'Mizuna Purple' | Same |
|-----------------------------------|----------------|-----------------|-------------|
| Germinated best | 33 % | 0 % | 67 % |
| Healthier plants | 33 | 33 | 33 |
| Matured earlier | 67 | 33 | 0 |
| Higher yields | 50 | 0 | 50 |
| More attractive | 67 | 33 | 0 |
| Tasted better | 33 | 33 | 33 |
| <i>Preference</i> | 75 | 25 | |
| <i>Recommend to others</i> | 75 | 25 | |
| <i>Overall rating¹</i> | 7.75 | 5.33 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- This is a beautiful green for salads. I like its taste, too.

Comments on 'Kyona Mizuna'

- Larger leaves and a pleasing taste.
- Went to seed earlier. Grew more vigorously. Suffered less damage from insects.

Comments on 'Purple Mizuna' Greens

- Seemed to grow stronger; matured earlier. I thought this one tasted better—but maybe because I liked the color.
- Tasted slightly bitter and had a more coarse leaf texture.

Conclusions

Most gardeners are not familiar with mizuna and few participated in this trial. These gardeners were generally pleased with the delicate flavor and uniquely fringed leaves of this Asian green. Both varieties were easy to grow and found to be a nice addition to a mixed salad. 'Kyona Mizuna' was preferred by most gardeners. It was faster growing, more productive, and more attractive.

Trial 22. Greens, Red Mustard

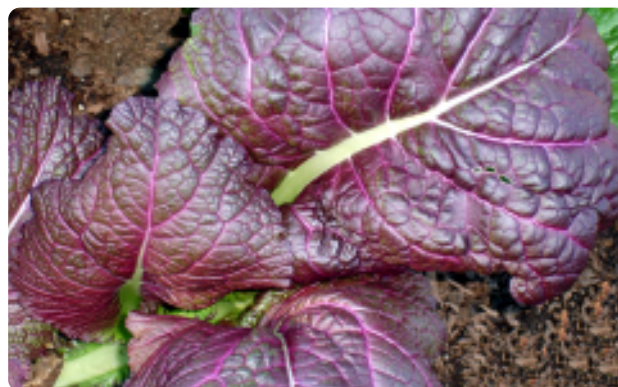
Varieties (information from seed catalogs)

'Osaka Purple'

21 days baby; 40 days full size. An early, highly refined mustard with light flavor. Its purple-veined leaves are medium-green with tinges of purple. Easy to grow.

'Red Giant'

21 days baby; 45 days full size. Purple, wavy leaves have mild spicy flavor. Used in salads (mixed and by itself), stir fries, and steamed dishes.



Data

Data were collected at 6 sites in 2009 and 3 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|----------------|-------------|-----------|----------------|-------------|------------|----------------|-------------|-------------|
| | 'Osaka Purple' | 'Red Giant' | Same | 'Osaka Purple' | 'Red Giant' | Same | 'Osaka Purple' | 'Red Giant' | Same |
| Germinated best | 17 % | 50 % | 33 % | 0 % | 0 % | 100 % | 11 % | 33 % | 55 % |
| Healthier plants | 17 | 33 | 50 | 0 | 0 | 100 | 11 | 22 | 67 |
| Matured earlier | 17 | 33 | 50 | 0 | 0 | 100 | 11 | 22 | 67 |
| Higher yields | 17 | 50 | 33 | 0 | 67 | 33 | 11 | 56 | 33 |
| More attractive | 0 | 17 | 83 | 33 | 67 | 0 | 11 | 34 | 55 |
| Tasted better | 40 | 0 | 60 | 33 | 0 | 67 | 38 | 0 | 62 |
| <i>Preference</i> | 60 | 40 | | 67 | 33 | | 62 | 38 | |
| <i>Recommend to others</i> | 67 | 67 | | 100 | 100 | | 78 | 78 | |
| <i>Overall rating¹</i> | 8.00 | 7.80 | | 8.67 | 8.67 | | 8.22 | 8.09 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both were very tasty—a sharp pepper flavor.
- Both were beautiful plants.

2010

- I really liked the mustard and will be sure to grow it again. The leaves got more intensely flavored (with a peppery taste) as they grew. Our whole family liked the addition of the leaves in salads.

Comments on 'Osaka Purple' Mustard

2009

- Amazing flavor.
- Greens were more tender.

2010

- Its taste was not as strong.
- Went to seed earlier. Grew more vigorously. Suffered less damage from insects.

Comments on 'Red Giant' Mustard

2009

- Nearly twice the yield.
- Larger leaves and more leaves. Overall strong plants, sending out new growth quickly after each harvest. Good raw (peppery with lemony undertones) ... but excellent sautéed. Real beauty.

2010

- Seemed to grow stronger; matured earlier. Tasted better—I liked the color.
- Slightly bitter with a more coarse leaf texture.

Conclusions

Both varieties performed well, although few gardeners wanted to try it. The greens were beautiful and had a mild, pleasant, peppery taste. 'Red Giant' had larger leaves and a more vigorous plant. The greens of 'Osaka Purple' were more tender and less coarse.

Trial 23. Kohlrabi

Varieties (information from seed catalogs)

'Early White Vienna'

60 days. Flat, globe-shaped bulbs with a pale green to white skin and flesh. Flesh is tender, juicy, and mild. Distinct small tops. Freezes well.

'Winner'

55 days. This hybrid has a fresh, fruity taste. High yields of pale green bulbs.



Data

Data were collected at 27 sites in 2009 and 16 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|-------------------|-------------|-------------|-------------------|-------------|-------------|-------------------|-------------|-------------|
| | 'E. White Vienna' | 'Winner' | Same | 'E. White Vienna' | 'Winner' | Same | 'E. White Vienna' | 'Winner' | Same |
| Germinated best | 17 % | 29 % | 54 % | 20 % | 33 % | 47 % | 18 % | 30 % | 51 % |
| Healthier plants | 5 | 32 | 64 | 7 | 29 | 64 | 6 | 31 | 64 |
| Matured earlier | 45 | 27 | 27 | 29 | 50 | 21 | 39 | 36 | 25 |
| Higher yields | 18 | 45 | 36 | 13 | 67 | 20 | 16 | 53 | 30 |
| More attractive bulbs | 9 | 50 | 41 | 0 | 57 | 43 | 6 | 53 | 42 |
| Tasted better | 24 | 24 | 52 | 7 | 40 | 53 | 18 | 30 | 52 |
| <i>Preference</i> | 45 | 55 | | 20 | 80 | | 36 | 64 | |
| <i>Recommend to others</i> | 83 | 96 | | 60 | 93 | | 74 | 95 | |
| <i>Overall rating¹</i> | 6.83 | 7.43 | | 6.64 | 8.00 | | 6.76 | 7.64 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- The bulbs of both varieties stayed tender even when large.
- Both varieties were healthy, produced well, and had a good taste.
- We really like kohlrabi. I usually plant 'Grand Duke', which we like. 'Early White Vienna' was very similar to that variety. 'Winner' was a new taste and texture—we really enjoyed and preferred it. We hope to plant 'Winner' in the future.
- Plants of both varieties were healthy. Both types had nice size bulbs. Couldn't tell a taste difference. Bulbs were large and not woody.
- Both remained tender and mild all season long.
- Neither variety was as large as varieties I've planted previously.
- I believe the cool season was helpful.

- Both were all right, but not great.
- Extreme flea beetle pressure—not enough survival to observe any differences.
- Insects virtually stripped the leaves, in spite of applications of Sevin. And then they moved to the bulbs and forked them as well. Not a good experience.

2010

- Both looked and tasted good.
- Both were good tasting and held up during hot weather.
- Both produced very even after being eaten by flea beetles at the start.
- We liked both.

Comments on 'Early White Vienna'

Kohlrabi

2009

- Bulbs formed earlier. Bulbs were moister.
- Produced first.
- Slightly earlier and slightly prettier at serving, but really not much difference.
- Ready to pick 3–7 days earlier. Some bulbs split, especially late in the season.
- Better flavor and appearance.
- I liked its taste better. The texture of 'Winner' was smoother—more like a potato. Milder tasting, too. We preferred 'Early White Vienna' for its flavor.
- Got larger but never got woody.
- More flavor, but not quite as much crunch.
- Better tasting, but very close.
- Performed poorly from start to finish. Most plants did not produce bulbs big enough to harvest.

2010

- Did not produce well.
- Germinated earlier. Ate these weeks earlier. Twice as much yield.
- The people who tried these said they tasted good. Grew better.
- Some did not create bulbs; some cracked at maturity.
- Disappointing—the bulbs didn't form a globe.
- Produced bulbless stalks.
- Didn't produce bulbs.
- Matured just a littler earlier. Better flavor.
- Spicier flavor.
- Bulbs were smaller but sweeter. Stored better.

Comments on 'Winner' Kohlrabi

2009

- Larger, rounder bulbs.
- Preferable for a market gardener since they were a bit more uniform in size.
- Plants grew faster and the bulbs were more uniform in shape.
- Healthy plants. Nice bulbs. Some of bulbs of 'Early White Vienna' got long and narrow.
- Both varieties were much the same—I liked 'Winner' because the fruit was round and easy to pick. Its bulbs grew very large—a disadvantage.
- Slightly better flavor.
- Grew big and some bulbs became woody, but still were okay when cooked.

2010

- Germinated better, grew better, and produced higher yields. More attractive bulbs. Although 'Early White Vienna' tasted better, 'Winner' tasted good.
- Tasted and looked better.
- Nice, big kohlrabi; produced well.
- Got bigger without getting woody; so produced more poundage. Bulbs are smooth and very attractive. It got the Grand Champion ribbon at the fair! Better texture even when the weather was hot; higher yield; very attractive and easy to prepare for eating.
- Even when they were larger, they did not get woody. Even cooked and mashed some—yum!
- Slightly better yields.
- Better germination. Good production.
- Bulbs grew bigger.
- Definitely better. Bulbs were more globular.
- Remained sweet and never got "woody" even through hot, dry weather. I am still using the bulbs even though they are getting big—but I have been slicing them and adding them to my refrigerator pickles—good—crispy!
- Somewhat earlier to mature.
- Failed to germinate.

Conclusions

'Winner' lived up to its name. Gardeners were extremely impressed with its uniformly round bulbs. Yields were good and its bulbs resisted splitting. The uniquely smooth, fruity flavor of 'Winner' was an enjoyable taste experience for gardeners, including those who have grown other varieties of kohlrabi for years. 'Early White Vienna' matured very early and produced good quality bulbs.

Trial 24. Lettuce, Green Leaf

Varieties (information from seed catalogs)

‘Salad Bowl’

50 days. Nicely curled, tender, lime green leaves. Outstanding quality. Will not become bitter under hot temperatures. Former All-America Selections winner.

‘Slobolt’

52 days. Frilly, light green leaves with great flavor. Best of the ‘Grand Rapids’ varieties. Grows rapidly in spring and tolerates heat during summer.



Data

Data were collected at 23 sites in 2009 and 8 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|--------------|-------------|-------------|--------------|-------------|-----------|----------------|-------------|-------------|
| | ‘Salad Bowl’ | ‘Slobolt’ | Same | ‘Salad Bowl’ | ‘Slobolt’ | Same | ‘Salad Bowl’ | ‘Slobolt’ | Same |
| Germinated best | 22 % | 22 % | 57 % | 50 % | 25 % | 25 % | 29 % | 23 % | 49 % |
| Healthier plants | 23 | 14 | 64 | 25 | 38 | 38 | 24 | 20 | 57 |
| Matured earlier | 33 | 19 | 48 | 38 | 38 | 25 | 34 | 24 | 42 |
| Higher yields | 14 | 41 | 45 | 38 | 38 | 25 | 20 | 40 | 40 |
| More attractive | 27 | 27 | 45 | 38 | 25 | 38 | 30 | 26 | 43 |
| Tasted better | 27 | 32 | 41 | 50 | 38 | 13 | 33 | 34 | 34 |
| <i>Preference</i> | 38 | 62 | | 50 | 50 | | 41 | 59 | |
| <i>Recommend to others</i> | 77 | 82 | | 88 | 88 | | 80 | 84 | |
| <i>Overall rating¹</i> | 7.50 | 7.91 | | 7.63 | 7.63 | | 7.53 | 7.84 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both varieties were great. There was a long harvesting season without getting bitter.
- These were two wonderful types of seeds. I have never had such lovely lettuce. I will try to get this seed again.
- I like both varieties very much. They are all around excellent. I would be glad to purchase seed of these varieties.
- Both varieties were very healthy and tasted good.
- Both did not get bitter long into the summer—enjoyed the taste of both.
- Both had excellent germination, were very healthy, grew quickly, and had great yields.
- Both had excellent yields and good taste.
- These were so similar it was hard to tell apart. They both grew very well and had great yields.
- Deer liked both varieties.

2010

- Nice color and texture. Both tasty.
- Both looked nice.
- A great year for lettuce—cold and wet—both varieties performed well. I was picking both by 30 June.
- Salad mix of both was very attractive.

Comments on ‘Salad Bowl’ Lettuce

2009

- Better color. Fuller leaf structure.
- Nice large leaves that lasted all season.
- A more compact plant.
- More attractive leaves.
- Better vigor, taste, looks, and production.
- Better taste.
- Good flavor—not bitter. Nice firm leaf.
- Very bitter taste.

2010

- Emerged first; germinated better; produced better.
- I prefer its milder taste.
- Milder flavor.
- So tender.
- Tended to yellow more on the lower leaves. Thicker. Attractive along its edges. Slightly sweeter taste.
- Matured a few days earlier. Yield was three to four times greater.

Comments on 'Slobolt' Lettuce

2009

- Better taste.
- Did not bolt as early. Better regrowth, too.
- Larger plants. A hint of bitterness to its taste.
- Better germination, higher yields, healthier plants.
- Better taste, earlier maturing (5 day difference), larger leaves.
- Larger leaves and higher yields. Better flavor but neither variety became bitter.
- It produced a fuller plant than 'Salad Bowl' and as the name implies, it didn't bolt until end of August.
- Easier to wash.
- A slight edge to 'Slobolt' because it is still producing into September.
- Leaves were very nice and fully shaped. Tasted good for a longer period of time.
- Bolted one week later.

2010

- We liked its looks and taste, and it lasted a very long time.
- Much slower to bolt. Tasted a little better (not so bitter) and washed easier—prep was easier—crisped up a little nicer.
- Rough edges on leaves. Its taste made for a better burger topping. I like its larger leaves.
- Tasted stronger and felt coarser.
- Firmer leaves. Stored longer and was more eye appealing to me.

Conclusions

'Salad Bowl' and 'Slobolt' performed well in our trials. Neither variety revealed any weakness. Gardeners were impressed with everything: the germination, health, growth rate, yields, resistance to bolting, and flavor of both varieties. Most gardeners recommended both varieties, but preferred 'Slobolt' for its larger leaves, higher yields, and longer harvest period.

Trial 25. Lettuce, Red Leaf

Varieties (information from seed catalogs)

'New Red Fire'

45 days. Very early and reliable. Intense, ruby red color carries well down into each leaf. Outstanding heat tolerance. Doesn't become bitter. Forms a heavy, loose leaf head. Very popular among commercial growers.

'Red Sails'

55 days. Burgundy leaves turn to green at the base. Crinkly, deeply frilled leaves. Slow bolting and stays mild without tasting bitter. This former All-America Selections winner is a favorite among gardeners.



Data

Data were collected at 26 sites in 2009 and 15 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|----------------|-------------|-------------|----------------|-------------|-------------|----------------|-------------|-------------|
| | 'New Red Fire' | 'Red Sails' | Same | 'New Red Fire' | 'Red Sails' | Same | 'New Red Fire' | 'Red Sails' | Same |
| Germinated best | 42 % | 13 % | 46 % | 23 % | 23 % | 54 % | 35 % | 17 % | 49 % |
| Healthier plants | 26 | 13 | 61 | 15 | 15 | 69 | 22 | 14 | 66 |
| Matured earlier | 33 | 21 | 46 | 23 | 8 | 69 | 29 | 16 | 54 |
| Higher yields | 29 | 38 | 33 | 0 | 42 | 58 | 18 | 39 | 42 |
| More attractive | 33 | 17 | 50 | 31 | 31 | 38 | 32 | 22 | 46 |
| Tasted better | 18 | 18 | 64 | 23 | 31 | 46 | 20 | 23 | 57 |
| <i>Preference</i> | 58 | 42 | | 33 | 67 | | 49 | 51 | |
| <i>Recommend to others</i> | 79 | 92 | | 100 | 92 | | 87 | 92 | |
| <i>Overall rating¹</i> | 8.13 | 8.08 | | 8.47 | 8.40 | | 8.25 | 8.20 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both varieties were the best garden lettuce I have ever grown! Both looked attractive. Both had excellent flavor all season long. No bitterness! Produced through September.
- Love the red leaves!
- Both varieties grew at equal paces and had healthy color and vigor. Similar yields. Awesome taste; no bitterness. I'd plant either again. They did really well in my garden and my family enjoyed the taste. They also consistently produced over the summer.
- They both tasted great in sandwiches.
- Both lettuces were excellent. Both germinated well, were vigorous, and kept producing. Tasted excellent!
- Both of them were gorgeous.

- Both were beautiful—dark-tinged lettuce with very frilly leaves. Good regrowth on both varieties after cutting.
- I am impressed with both varieties. I am used to 'Black-Seeded Simpson' and both of these outperformed it hands down. Both lasted well into August for harvest.
- These were slow growing, but they didn't bolt despite 90 °F. Both were beautiful. I heartily recommend both. I picked most of the leaves in September before it snowed. I noticed they still were growing when I was cleaning out my garden in October and November. We prefer to mix these red-leaf types with green lettuce in salads. These varieties would be a nice complement to a quick growing lettuce (for example, 'Black-Seeded Simpson'). I love red lettuce but I had never considered growing it. Both my mom and I enjoyed these.

More General Comments

2009

- Both bolted fairly early; definitely more delicate than the green leaves as far as the leaf strength.
- Both are excellent leaf lettuces for eating right from the garden.
- Both were very tasty and bountiful. These varieties were so similar; it's hard to tell which was a little better!

2010

- Best lettuce I ever raised—yielded prolifically.
- I am high on both of these varieties.
- They both did really well.
- Both looked great. Started picking leaves at the same time. Enjoyed the taste of both.
- Both grew well.
- Very nice, healthy plants. Love them both!
- Both tasted on the bitter side.

Comments on 'New Red Fire' Lettuce

2009

- Germinated better, produced more, and matured 7–10 days earlier.
- Better germination. Better tolerance to the rare heat we had. Less damage by cutworms—can't explain that one.
- Its extra crinkly leaves look more attractive. It is worth growing for its looks alone!
- Brighter red leaves. Came up better and was slower to bolt.
- Better regrowth. Brighter, shinier leaves. Kept producing longer in the season.
- More attractive leaves.
- Crispier.
- Not quite as bitter.
- Better vigor and seemed more resistant to insects.

2010

- They had healthier plants and had a nice color.
- A little sweeter.
- Plants just looked healthier. Seemed more robust. More crisp and flavorful.
- Delicious. Not bitter, but a little sweet.

Comments on 'Red Sails' Lettuce

2009

- Lush and dense. Bright green inside, reddish outer edges. Really great in sandwiches or salads.
- Better taste, yield, and appearance.
- Larger leaves. Extremely productive.
- Lasted all summer long and tasted great all summer.
- Darker red color.
- Had real staying power after they matured. Thrived in our cool summer weather.
- Bolted faster. Tasted more bitter. Leaves showed a greater contrast of colors.
- Bolted ten days sooner than 'New Red Fire', but kept better in cold storage—roughly two weeks versus 'New Red Fire', which started to rot after eight days of refrigeration.

2010

- Better flavor and was better producer. A bit milder.
- Better taste.
- Kept a little longer in the refrigerator.

Conclusions

'New Red Fire' and 'Red Sails' were exceptional. Gardeners loved the appearance, yield, and taste of both varieties. 'New Red Fire' showed outstanding vigor and its leaves were brightly colored. 'Red Sails' was extremely productive.

Trial 26. Lettuce, Specialty

Varieties (information from seed catalogs)

'Buttercrunch'

64 days. Longtime favorite. Sweet, crisp leaves are surrounded by thick, dark green outer leaves, making this an attractive Bibb type. A vigorous variety that grows well in spring, summer and fall. Resists bolting.

'Nevada'

56 days. Thick, shiny, lime green leaves are crisp and delicious. Large, loose heads. Slow bolting and resistant to tipburn. Considered the best green "summer-crisp" variety.



Data

Data were collected at 34 sites in 2009 and 29 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|----------------|-------------|-----------|----------------|----------|-------------|----------------|----------|-------------|
| | 'Buttercrunch' | 'Nevada' | Same | 'Buttercrunch' | 'Nevada' | Same | 'Buttercrunch' | 'Nevada' | Same |
| Germinated best | 30 % | 39 % | 30 % | 26 % | 19 % | 56 % | 28 % | 30 % | 42 % |
| Healthier plants | 32 | 16 | 52 | 41 | 7 | 52 | 36 | 12 | 52 |
| Matured earlier | 33 | 30 | 37 | 37 | 15 | 48 | 35 | 23 | 42 |
| Higher yields | 35 | 39 | 26 | 37 | 4 | 59 | 36 | 23 | 41 |
| More attractive | 43 | 33 | 23 | 48 | 11 | 41 | 45 | 23 | 31 |
| Tasted better | 27 | 33 | 40 | 56 | 22 | 22 | 40 | 28 | 32 |
| <i>Preference</i> | 44 | 56 | | 67 | 33 | | 54 | 46 | |
| <i>Recommend to others</i> | 64 | 76 | | 100 | 68 | | 80 | 72 | |
| <i>Overall rating¹</i> | 7.61 | 7.84 | | 8.54 | 7.48 | | 8.03 | 7.44 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both varieties continued to produce all summer.
- Both were excellent with the cool summer!
- Both varieties withstood the heat and did not get bitter.
- Both yielded large quantities—we ate all we could and then gave some to charity. I will probably try to plant some of each in future years as both were very good lettuces.
- They would both be attractive in a mixed green salad.
- Both were beautiful. Picked first leaves 30 days after sowing and full heads 6 weeks after sowing. Both were slow to bolt. Both were delicious.
- The flavors of both varieties were kind of bland. I prefer spring mixes.

2010

- Both varieties came up quickly, were very healthy looking, bright in color. Were able to harvest them at the same time. It was fun to mix the two together! They were both outstanding in yield.
- Both germinated very well. Very healthy.
- They both looked and tasted fine.
- Both were good. This is the first time my grandson ate lettuce and liked it; he said he will only eat lettuce we grow!
- Both stayed sweet. Looked nice in a flower bed.
- Both looked great. Tasted similar. I will plant both again next year.
- Both were healthy. Great semi-heads. Tasted different, but both excellent.
- Neither variety got bitter.

Comments on 'Buttercrunch' Lettuce

2009

- Leaves had more texture and a little more flavor. I liked its compact tight leaves. Plants were healthier from the get go.
- A much darker green, fuller leaf.
- Tasted bitter.
- Lasted the longest with our last picking on Labor Day.
- Better taste, texture, and color. Kept longer.
- Bolted too soon and had poor regrowth.
- A spicy flavor—our taste test selected this one. Firmer leaf. Lasted longer in the refrigerator.
- Much better flavor.
- Produced higher yields. Tasted better. Bigger leaves for sandwiches.
- I liked the taste of 'Buttercrunch'. It also stayed very crisp when washed and put into the refrigerator for next day use.
- The taste of the early season 'Buttercrunch' is great! I'll look for it in stores.
- Better taste, texture, and more productive. Larger plants. Darker leaves.

2010

- It was awesome! We love it! We want more next year!
- Nicer heads and better appearance. Fewer bug problems.
- Better flavor and crisper.
- Liked its taste and looks.
- More compact heads with more lettuce. Nice dark green in color. Tasted better.
- I liked the loose heads of 'Buttercrunch' and favored its taste and leaf shape.
- Grew thicker and outproduced 'Nevada'.
- Very good taste. Germinated a week earlier.
- Little bit sweeter and kept better in refrigerator.
- Earlier and higher yields.
- I prefer its taste and texture.
- More plants; bigger plants; didn't bolt as quickly. More attractive and better tasting.
- Unbelievable. It looked like a store-bought head of lettuce and was very delicious.
- Took several frosts to kill 'Buttercrunch'. The first frost killed 'Nevada'.

Comments on 'Nevada' Lettuce

2009

- Extremely hardy plants and were great at heat tolerance. 'Nevada' held up longer after harvest. It refrigerated up to three weeks and was still fresh and good. Lasted longer in the garden without getting bitter. Friends and family want to know where to get seed for next year.
- Produced larger heads.
- Tasted much better, produced more, matured earlier, and looked better. Large, nice heads.
- Stayed nicer much longer. Produced quite a bit late in the season.
- Better regrowth and you could enjoy it longer into the season.
- Took longer to make the central leaves. Stayed tender longer; produced more.
- Very fine leaf—not too dense.
- Tender, tasty, long producing.
- I liked the lighter color and taste of 'Nevada'.
- Definitely healthier. Grew faster. Yielded much better. Looked fuller and fewer leaf blemishes. A nicer crunch and appealing taste. I like its lighter color.
- We were able to eat 'Nevada' until frost.
- An excellent mild, buttery flavor.
- Tasted better and definitely had a higher yield. Larger leaves. Matured two days earlier.
- Bolted ten days before 'Buttercrunch'.

2010

- Lasted longer without getting bitter.
- It looks more like lettuce.
- We thought it had better flavor.
- Great tasting and lasted longer.
- Produced higher yield and slower to bolt. Its flavor stayed mild even as the summer got hot.
- Liked its leaf shape better. Slightly preferred its taste.

Conclusions

Gardeners were pleased with the performance of both varieties. Both of these bolt-resistant varieties produced good yields of lettuce through much of the summer. Most gardeners preferred 'Buttercrunch'. It had a darker green, fuller leaf and its heads were very attractive.

Trial 27. Melon, Asian

Varieties (information from seed catalogs)

‘Early Silver Line’

75 days. Vines produce loads of small (1–2 pound) melons. Rind is yellow with silver lines. Flesh is crisp, white, and refreshing.

‘Sun Jewel’

68 days. Very early and productive. Oblong fruits are lemon with white ribs. The flesh is white and crisp. Vines resist disease. Fruits slip off vine when ripe. Very easy to grow.



Data

Data were collected at 5 sites in 2010.

| Trait | ‘Early Silver Line’ | ‘Sun Jewel’ | Same |
|-----------------------------------|---------------------|--------------------|-------------|
| Germinated best | 0 % | 40 % | 60 % |
| Healthier plants | 0 | 100 | 0 |
| Matured earlier | 50 | 50 | 0 |
| Higher yields | 50 | 50 | 0 |
| More attractive melons | 0 | 60 | 40 |
| Tasted better | 0 | 80 | 20 |
| <i>Preference</i> | <i>0</i> | <i>100</i> | |
| <i>Recommend to others</i> | <i>20</i> | <i>80</i> | |
| <i>Overall rating¹</i> | <i>4.00</i> | <i>6.17</i> | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both grew well and produced early.
- I was not particularly impressed with either variety. Flesh was limited and almost too mild. I probably would not plant these varieties in future.
- Many of the fruits rotted at first because we didn’t know when they were ripe. Neither had much flavor. Bland and watery.
- Flea beetles ate all of the vines.

Comments on ‘Early Silver Line’ Melon

- It was the only variety to produce a fruit that was edible.
- Germinated four times better. Produced the only ripe melons, which were very soft inside and yellow outside. Tasted good.
- The first melon ripened on August 17. Even those that did “slip” from the vine did not taste good.
- Most of its vines died before melons ripened.
- Very attractive to flea beetles—like a magnet.

Comments on ‘Sun Jewel’ Melon

- Tasted better; vine stayed healthy longer through the season; more melons ripened. Germinated earlier and better. Vines were twice as vigorous when one month old. Better tasting fruit.
- Melons were bigger and more oval in shape.
- Tasted better. Later maturing but worth the wait.

Conclusions

‘Sun Jewel’ clearly outperformed ‘Early Silver Line’. Its vines were more vigorous, healthier, and more productive. Its fruits were larger and of higher quality. These Asian melon varieties ripen early and are easy to grow. Their flavor is unusual for a melon—somewhat like a pear—some gardeners liked it and some did not.

Trial 28. Melon, Cantaloupe Classic

Varieties (information from seed catalogs)

'Delicious 51'

88 days. Sweet, 3-pound fruits with medium to sparse netting over distinct ribs turn yellow at maturity; may be soft when ripe. Dark orange interiors with sweet juicy aromatic flesh.

'Hearts of Gold'

85 days. Fruits typically weigh 2–3 pounds and have firm, juicy, highly flavored, aromatic, high quality flesh. Popular in the Midwest.



Data

Data were collected at 13 sites in 2010.

| Trait | 'Delicious 51' | 'Hearts of Gold' | Same |
|-----------------------------------|----------------|------------------|-----------|
| Germinated best | 50 % | 17 % | 33 % |
| Healthier plants | 27 | 27 | 45 |
| Matured earlier | 50 | 25 | 25 |
| Higher yields | 57 | 29 | 14 |
| More attractive melons | 43 | 29 | 29 |
| Tasted better | 33 | 33 | 33 |
| <i>Preference</i> | 60 | 40 | |
| <i>Recommend to others</i> | 36 | 27 | |
| <i>Overall rating¹</i> | 4.91 | 3.91 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both were very good.
- Germination in greenhouse was very good. Seeds planted in garden did not do well (we also had other seeds that did not germinate very well). The melons were progressing very well ... when it froze on September 17 the melons were still in the field. I guess I would have to call the season a “crop failure” because of weather conditions. The melon seeds planted directly into the garden did not mature.
- Neither had great germination due to wet and cool spring. Melons set on at about the same time. The plants started drying down before melons were ripe. Melons were the same size; neither one is better than the other.
- Neither produced a ripe melon.
- Both varieties were growing beautifully and were very healthy until a hailstorm destroyed them.

Comments on 'Delicious 51' Cantaloupe

- Germinated four times better. Produced the only ripe melons, which were very soft inside and yellow outside. Tasted good.
- The first melon ripened on August 17. Even those that did “slip” from the vine did not taste good.
- It was the only variety to produce a fruit that was edible.
- Good taste. A better variety all around.

Comments on 'Hearts of Gold' Cantaloupe

- The overall performance of the plant was better with bigger fruit (similar to what could be purchased in stores) and flavorful. Produced nice fruit first.
- Produced larger melons; matured sooner; lots of melons; tasted very good.
- Melons were not big but set more melons. Had a sweeter, firm fruit taste.
- Shorter vines.
- Never fully matured.
- Never ripened. I think it was too wet of a season.

Conclusions

'Delicious 51' was superior although both varieties performed poorly. 'Delicious 51' was earlier, more productive, and its melons were more attractive. Yields of both varieties were poor. These heirloom varieties do not have the vigor of hybrids.

Trial 29. Melon, Cantaloupe Heirloom Large

Varieties (information from seed catalogs)

'Iroquois'

85 days. Easy to grow. Melons are large (7 pounds) with deep ribs and good netting. The salmon-orange flesh is thick and sweet. Vines resist Fusarium wilt.

'Pride of Wisconsin'

90 days. Heavy yields of football-shaped fruits, ranging 4–8 pounds in weight. Hard shelled with firm, sweet flesh. Does well in the Midwest.



Data

Data were collected at 13 sites in 2010.

| Trait | 'Iroquois' | 'Pride of Wisconsin' | Same |
|-----------------------------------|-------------|----------------------|-------------|
| Germinated best | 17 % | 17 % | 67 % |
| Healthier plants | 9 | 45 | 45 |
| Matured earlier | 20 | 50 | 30 |
| Higher yields | 10 | 40 | 50 |
| More attractive melons | 20 | 0 | 80 |
| Tasted better | 13 | 38 | 50 |
| <i>Preference</i> | 50 | 50 | |
| <i>Recommend to others</i> | 42 | 42 | |
| <i>Overall rating¹</i> | 5.67 | 5.58 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Very satisfied with the overall yield—all came at once. Melons of both varieties were good looking and excellent in taste.
- They both were very good. We picked lots of fruit and they were a real treat!
- Plants were beautiful until they died early due to disease. Many melons didn't ripen.
- Neither variety produced any fruit—not sure if it was weather or rain related.
- The season was too short with early frost. Neither variety produced a ripe melon.
- Neither was very good at germination. Vines got mold and it was a short season. Neither variety produced a ripe fruit. I won't grow again.
- I started them indoors and put on plastic as spring was very damp and cold. Neither matured—cool weather—frost on September 15.
- They just weren't that tasty. I won't grow either variety again.

Comments on 'Iroquois' Cantaloupe

- Produced several wonderful melons.
- Much better flavor.
- The only variety to produce an edible fruit.
- The first melon ripened on August 17. Even those that did "slip" from the vine did not taste good.
- Matured faster; produced a few fist-sized melons before frost, but none were ripe before frost.
- 'Iroquois' melons were rounder; whereas those of 'Pride of Wisconsin' were oblong.
- Resisted flea beetles better. The pests really beat up 'Pride of Wisconsin'.
- Never had a ripe melon.

Comments on 'Pride of Wisconsin' Cantaloupe

- Had time to ripen. Wow—homegrown cantaloupe can be excellent.
- Healthier plants gave them a head start for the season—did better overall.
- Plants were healthy and grew well.
- Produced fewer melons, but were still good.
- Produced a few more melons and were earlier.
- Vines seemed healthier.
- Set fruit earlier but did not get a ripe fruit.

Conclusions

Neither variety was impressive. Yields were poor and late in the season. 'Pride of Wisconsin' had healthier vines and was more likely to produce a ripe melon. Gardeners loved the flavor of these melons, but there were very few ripe melons to savor.

Trial 30. Melon, Cantaloupe Hybrid

Varieties (information from seed catalogs)

'Athena'

79 days. An early melon with outstanding fragrance and flavor. Melons are 5–6 pounds with thick, firm, orange flesh. Good shelf life after harvesting. Coarsely netted, tough rinds rarely ever crack. Vines resist diseases.

'Goddess'

70 days. Excellent early yields. Fruits range 4–6 pounds in weight. Rinds are finely netted with shallow ribs. Very sweet, bright orange flesh. Disease-resistant vines.



Data

Data were collected at 16 sites in 2010.

| Trait | 'Athena' | 'Goddess' | Same |
|-----------------------------------|-------------|-----------|-------------|
| Germinated best | 36 % | 0 % | 64 % |
| Healthier plants | 40 | 13 | 47 |
| Matured earlier | 21 | 43 | 36 |
| Higher yields | 33 | 33 | 33 |
| More attractive melons | 80 | 0 | 20 |
| Tasted better | 45 | 18 | 36 |
| <i>Preference</i> | 65 | 35 | |
| <i>Recommend to others</i> | 75 | 50 | |
| <i>Overall rating¹</i> | 6.19 | 5.13 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both tasted awesome!
- Both tasted good but it was hard to tell when they were ripe.
- Both were healthy and similar in yield.
- Both of these varieties produced very well.
- Neither produced well. Both varieties definitely need to be started indoors in order to do well in our heavy clay soil that takes a long time to warm in spring.
- Terrible germination rate—cold wet spring. Many small melons were set but none became ripe before frost. I hope to try this test again. I have never had such a poor garden.
- None matured before our killing frost on September 18.
- Neither one did real well with the cool spring.
- Neither was very healthy—slow growth. Very late. Bad year for melons at my place.

Comments on 'Athena' Cantaloupe

- Good looking rind with nice shape and color. The flesh is smooth, firm, and sweet. Loved this melon. Haven't tasted anything better.
- I prefer 'Athena' for its healthy plants and attractive, flavorful melons.
- Ripened 10–14 days later.
- Larger melons. Earlier.
- Ripened 7 days later. Skin was harder and was less damaged by insect pests.
- Very good tasting. Produced well even in wet conditions.

Comments on 'Goddess' Cantaloupe

- Twenty percent higher yields.
- First to ripen; very tasteful; produced more per plant; larger melon. Produced 20 melons (5 plants) compared to 23 melons (9 plants) for 'Athena'. We have given many melons away and people seem to prefer the 'Goddess'. 'Goddess' melons weighed 6.0–7.0 pounds compared to 4.5–5.0 pounds for 'Athena'.
- More affected by the August 1 hailstorm.

Conclusions

Most gardeners preferred 'Athena', although yields of both varieties were low. The melons of 'Athena' were larger and more attractive (fully netted with slight ribbing). Gardeners enjoyed the sweetness and firm texture of its flesh. 'Goddess' was very sweet, but its rind was thin and the melons had a short shelf life. 'Goddess' was earlier—this is especially valued in the northern part of the state. In spite of our normal temps in 2010, many gardeners failed to get any cantaloupes to ripen.

Trial 31. Melon, Galia

Varieties (information from seed catalogs)

'Arava'

77 days. Luscious green-fleshed melon named for a valley in Israel. A signature melon from this country. A good yielder, even in cool conditions, ripening 3–4 fruits per plant. Rinds are smooth and lightly netted with no ribbing. Melons average 3 pounds. Vines resist powdery mildew.

'Passport'

73 days. Large, 5–6-pound melons ripen early. Unusual green flesh has a “tropical” flavor. Small seed cavity. Vigorous vines with some resistance to gummy stem blight. Widely adapted. From University of New Hampshire.

Data

Data were collected at 5 sites in 2010.

| Trait | 'Arava' | 'Passport' | Same |
|-----------------------------------|-----------|-------------|-------------|
| Germinated best | 25 % | 0 % | 50 % |
| Healthier plants | 25 | 25 | 50 |
| Matured earlier | 25 | 75 | 0 |
| Higher yields | 25 | 75 | 0 |
| More attractive melons | 25 | 50 | 25 |
| Tasted better | 50 | 50 | 0 |
| <i>Preference</i> | 20 | 80 | |
| <i>Recommend to others</i> | 40 | 100 | |
| <i>Overall rating¹</i> | 5.60 | 8.80 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both varieties grew okay and tasted good. They both got ripe well before frost.



Comments on 'Arava' Melon

- Tasted more like a typical honeydew melon, which I prefer. Slightly higher yield.
- Both varieties were eaten early by rabbits; the vines of 'Arava' recovered best, but its melons were very slow to mature.

Comments on 'Passport' Melon

- Very tasty and much earlier.
- Big, juicy, and nice looking.
- Produced more.
- Has a more unique and different taste, but was still pretty good.

Conclusions

'Passport' is a fine green-flesh melon variety for the north. Gardeners in our trial liked its early maturity, high yields, and attractive melons. Most gardeners were not satisfied with the earliness or yields of 'Arava'.

Trial 32. Pea, Shelling

Varieties (information from seed catalogs)

'Early Frosty'

64 days. Excellent variety for freezing. Strong, 28-inch vines bear a heavy crop of dark green, 3.5-inch pods. Pods are borne on the top of the vine, making harvesting easy. Does not require trellising.

'Lincoln'

65 days. Another excellent variety for freezing. Pods are 3.5 inches long with 8–10 small, tender peas inside. Excellent flavor. Vines tolerate heat and resist diseases.



Data

Data were collected at 38 sites in 2010.

| Trait | 'Early Frosty' | 'Lincoln' | Same |
|-----------------------------------|----------------|-------------|-------------|
| Germinated best | 34 % | 24 % | 42 % |
| Healthier plants | 35 | 27 | 38 |
| Matured earlier | 62 | 21 | 18 |
| Higher yields | 43 | 38 | 19 |
| More attractive pods | 29 | 37 | 34 |
| Tasted better | 32 | 26 | 42 |
| <i>Preference</i> | 50 | 50 | |
| <i>Recommend to others</i> | 68 | 78 | |
| <i>Overall rating¹</i> | 7.11 | 7.38 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both varieties produced a large quantity for the same amount of time. Started picking both varieties on the same day. Good taste. Both varieties would do well for ND gardeners. Both grew well without staking.
- They both produced adequate yields; however, they were so good we could never get enough to freeze.
- Both had healthy plants.
- Both had good yields. Both always taste good.
- Both varieties performed well with no disease evident on either.
- Both have nice pods.
- We aren't having great luck with peas in general—hoping to find something better than 'Lincoln', but 'Early Frosty' was less productive and not as nice overall.

Comments on 'Early Frosty' Pea

- Better plants and produced better tasting peas.
- Better by far at just about everything.
- Our taste team picked 'Early Frosty'. Plants were slightly more healthy.
- Tasted better. Lower yields (18 versus 25 ounces for 'Lincoln').
- Produced first but the harvest was short lived.
- More than double the amount of pods. Grew better. Way healthier and tasted almost as good.
- Grew too tall and should probably be staked. It was also harder to shell and looked like it was filled out but wasn't sometimes.
- 'Early Frosty' was 5–6 days earlier. The earlier peas to eat, the better!
- Had to be picked while peas were small to have sweet flavor.
- I liked its earlier yield and better taste.
- Very hardy plants.
- Smaller plants (maybe due to soil compaction).
- Plants were taller and bushier. Yield was 10% higher. Pods were more uniform in size and resembled the old variety 'Little Marvel'. Produced about 1.5 weeks longer.
- Tasted great and a lot of peas per pod (6–7 compared to 5–6 for 'Lincoln'). On the negative side, if you don't fence them they are one big mess to pick. More vigorous, tall plants.
- Lived up to its name! Picked 4–5 days earlier. The vines really went the distance providing big pods and filled them with very few blanks. Kept flowering into August. More peas per pod.
- Better production (23.4 vs. 19.8 ounces) and a sweeter, stronger pea flavor.
- My family loves eating these right from the garden.

More Comments on 'Early Frosty' Pea

- Lots of misshaped pods. A few pods were stunningly sweet but most were starchy.
- Came in 4–5 days earlier. Sweeter tasting.
- Pods were bigger with bigger peas inside. The pods were easier to pop open when shelling them. One family member thought this variety was sweeter.
- Had a higher yield. We liked its flavor better—even tasted fairly good when pods were more mature.
- Matured earlier by a week. Produced ten times more peas. Better for freezing, but worse for eating fresh.
- Pods became shorter late in the season.

Comments on 'Lincoln' Pea

- Healthy plants and good yields. Sweet tasting—most important. More peas per pod.
- Earlier. Very good taste. Yields were twice as high.
- Had long, evenly filled pods. Consistently produced same pods throughout season.
- More peas in the pods. Pods were curved and easier to shell. Sweeter taste.
- Slightly better yield and quality.
- Produced a little more. Tasted better than 'Early Frosty' raw but tasted worse cooked.
- Produced a bit more (mainly because the pods were a bit longer).
- High producer. Large, full pods.
- Bigger pods.
- Pods were larger. Plants didn't lay over as much.
- Our family preferred 'Lincoln'. Better germination. The shell was softer, and the peas were sweeter and tastier.
- Larger plant. Trellised better. Produced late pods to a larger size.
- Pods were longer and more slender. Taste seemed less starchy.
- Even though this variety has been grown for generations, it still meets all requirements for an excellent all-around pea.
- If I were only growing one variety, 'Lincoln' would be my choice. Good looking plant; withstood heat a little better; pods looked good; well filled out peas; tasted good.
- More pods per plant.
- Very good tasting pea.
- Leaves were dying, but peas tasted sweeter.

Conclusions

Gardeners liked both varieties and were evenly split when choosing their favorite. 'Early Frosty' was earlier and well liked for its freezing qualities. 'Lincoln' was preferred by many for its longer pods. Yields of both varieties were similar and deemed to be acceptable.

Trial 33. Pea, Snap

Varieties (information from seed catalogs)

'Cascadia'

65 days. The 2.5-foot vines produce a cascade of delicious, dark green peas. Vines tolerate diseases. Trellising is optional.

'Sugar Sprint'

58 days. Short, 2-foot vines produce 3-inch, nearly stringless pods. Excellent eating quality. Does not require trellising.



Data

Data were collected at 32 sites in 2010.

| Trait | 'Cascadia' | 'Sugar Sprint' | Same |
|-----------------------------------|-------------|----------------|-----------|
| Germinated best | 42 % | 35 % | 23 % |
| Healthier plants | 45 | 19 | 35 |
| Matured earlier | 42 | 32 | 26 |
| Higher yields | 47 | 37 | 17 |
| More attractive pods | 40 | 20 | 40 |
| Tasted better | 17 | 59 | 24 |
| <i>Preference</i> | 50 | 50 | |
| <i>Recommend to others</i> | 55 | 64 | |
| <i>Overall rating¹</i> | 6.38 | 6.43 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both had great flavor. It's the first veggie gone off the veggie trays!
- Taste better shelled. Not as good as 'Sugar Ann'.
- Both got a moldy appearance on the leaves, but continued to produce.
- Nice, healthy plants.
- Neither produced very high yield.
- Produced at the same time and the pods looked the same.

Comments on 'Cascadia' Pea

- Pods were bigger, but less tender.
- Vines were taller. Produced 3–4 days earlier. Produced more pods and produced later into the summer—into the middle of August.
- Just performed better overall. Had a nice, juicy, plump taste.
- Less powdery mildew. Vines climbed better.

- Nice, long pods.
- About 30 % better yield.
- Came up better, was healthier and tasted better—all around better than 'Sugar Sprint'.
- Yield was average compared to most peas I have grown in the past.

Comments on 'Sugar Sprint' Pea

- We ate them like candy. Produced nice big pods. Nice, pale green, wide pods each with 5–6 peas. Pods were tender, stringless, and held up to the summer heat.
- Grew the best in our garden and produced first. With our short growing season I like plants that produce fast.
- Produced pods earlier. Didn't require trellising.
- One week earlier. Plants looked and were healthy and sturdy. Sweeter and more pods.
- Better germination and plants looked healthier. More pods. Had the taste my family preferred.
- Sweeter. This would be great for someone who was limited on space.
- Tasted much better; the pod was sweet.
- Better tasting and produced more.
- Produced a single, good-sized picking; then plants shrank and died.

Conclusions

Neither variety was exceptional. Neither variety was clearly better than the other. Gardeners were generally lukewarm on their recommendations and were evenly split on which of the two varieties they preferred. Many gardeners felt 'Cascadia' had healthier, more productive vines. The pods of 'Sugar Sprint' were not as attractive, but were definitely sweeter.

Trial 34. Pumpkin, Jack-O'-Lantern

Varieties (information from seed catalogs)

'Neon'

65 days. One of the earliest ripening varieties. Pumpkins are vivid orange, medium ribbed, and grow 7–8 pounds in weight and 10–12 inches in diameter. Dark emerald handles are strongly attached. Semi-bush vines.

'Racer'

85 days. Early ripening pumpkin for the north. Dark orange pumpkins are mid-sized and blocky with attractive ribs. Typical weight is 12–16 pounds. The semi-bush vines produce good yields of 2–3 fruits/plant.

Data

Data were collected at 32 sites in 2010.

| | 'Neon' | 'Racer' | Same |
|-----------------------------------|-------------|-----------|-------------|
| Germinated best | 28 % | 29 % | 48 % |
| Healthier plants | 29 | 28 | 39 |
| Matured earlier | 56 | 19 | 26 |
| Higher yields | 31 | 34 | 34 |
| More attractive fruits | 43 | 18 | 39 |
| Tasted better | 0 | 45 | 55 |
| <i>Preference</i> | 55 | 45 | |
| <i>Recommend to others</i> | 81 | 71 | |
| <i>Overall rating¹</i> | 7.31 | 7.16 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both had nice orange fruits with great handles.
- Vines sprawl more than expected.

Comments on 'Neon' Pumpkin

- Like its earlier ripening—fun to see the bright orange pumpkins in July.
- I liked 'Neon' since it turns orange earlier, although 'Racer' matured more "traditionally" with a real "pumpkin" texture.
- More pumpkins with perfect shapes.
- Vines spread out less—good thing!
- Pumpkins were brighter orange.
- Lots of pumpkins (probably three times more than 'Racer') and very early. Nice sizes and shapes.
- The pumpkins were ripe and uniformly colored by early September. 'Racer' was mostly green by the end of September.



- I like the smooth look of its pumpkins better.
- More pumpkins. Less flavor.
- Beautiful, deep orange with dark green stems—picture book!

Comments on 'Racer' Pumpkin

- A more handsome appearance and the sizes were great. The largest was 18 pounds. I like their shape.
- Tasted a little sweeter and had a nice size (10–15 pounds versus 5–10 pounds for 'Neon').
- Nice pumpkins—thick stems.
- Pumpkins had a deeper orange color and were bigger.
- Produced bigger pumpkins and more pumpkins.
- Larger pumpkins (basketball size compared to soccer ball size for 'Neon'); produced more.
- Produced 20% more pumpkins.
- Pumpkins were more attractive and had a nicer orange color. Tasted more like squash.
- Very nice, jack-o'-lantern type fruit.
- Lots of blossoms, but the fruit do not set as well compared to 'Neon'. Its yields came on in the end, but too late for the new fruit to ripen.

Conclusions

Both varieties performed well. 'Neon' is a breakthrough for gardeners in our state, especially those in the north who face a very short growing season. The precocious orange habit of 'Neon' guarantees orange jack-o'-lanterns for Halloween. Gardeners liked 'Neon' for its bright orange color, smooth rind, and the uniformity of the pumpkins. 'Racer' produced larger pumpkins (in most gardens) with a darker orange rind and better taste. Yields of both varieties were good.

Trial 35. Radish, French

Varieties (information from seed catalogs)

'D'Avignon'

21 days. Slender, 3–4-inch radishes are red with sparkling white tips. Traditional variety from France.

'French Breakfast'

28 Days. Popular variety. Scarlet roots grow 2 inches long with white tips. Blunt shape. Crisp and flavorful.



Data

Data were collected at 17 sites in 2009 and 7 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|--------------|----------------|-------------|--------------|----------------|-------------|----------------|----------------|-------------|
| | 'D' Avignon' | 'French Bfast' | Same | 'D' Avignon' | 'French Bfast' | Same | 'D' Avignon' | 'French Bfast' | Same |
| Germinated best | 20 % | 27 % | 53 % | 0 % | 14 % | 86 % | 14 % | 23 % | 63 % |
| Healthier plants | 13 | 27 | 60 | 0 | 0 | 100 | 9 | 19 | 72 |
| Matured earlier | 42 | 25 | 33 | 43 | 25 | 29 | 42 | 26 | 32 |
| Higher yields | 8 | 58 | 33 | 0 | 17 | 83 | 6 | 46 | 48 |
| More attractive roots | 25 | 42 | 33 | 29 | 43 | 29 | 26 | 42 | 32 |
| Tasted better | 50 | 33 | 17 | 0 | 86 | 14 | 35 | 48 | 16 |
| <i>Preference</i> | 43 | 57 | | 0 | 100 | | 30 | 70 | |
| <i>Recommend to others</i> | 71 | 64 | | 57 | 86 | | 67 | 70 | |
| <i>Overall rating¹</i> | 5.71 | 6.00 | | 6.14 | 8.43 | | 5.84 | 6.71 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both varieties produced lots of attractive radishes.

2010

- Great vigor. Good yields. Mild taste. Nice roots.

Comments on 'D'Avignon' Radish

2009

- Ready to eat in three weeks. I like the size. Milder flavor and crisp. We would like to grow this again.
- Plants and leaves look healthier. Smoother skin and slightly better taste (not as strong).

2010

- Longer roots. The lower third was white, which contrasted nicely with the red. It was "prettier", but didn't have much flavor while chewing, but did have a bit of aftertaste.
- Roots were fatter.
- Matured 3–4 days earlier. Some hollow centers.

Comments on 'French Breakfast' Radish

2009

- A better taste and yield.
- Color and shape was a little better—deeper red color and more uniform.
- Matured earlier. Slightly spicier.

2010

- Crisp. Better taste.
- Roots were longer and weren't as hot.
- Better flavor and texture.

Conclusions

Gardeners preferred 'French Breakfast' for its higher yields. Its scarlet and white roots were very attractive, uniform in shape, and mild tasting. Gardeners also enjoyed the look and taste of 'D'Avignon', which matured very quickly.

Trial 36. Radish, Pink

Varieties (information from seed catalogs)

'Pink Beauty'

26 Days. Eye-catching, pastel pink roots have a crisp texture and taste. Maintains its quality in the garden a long time. Uniformly globe-shaped roots.

'Pretty in Pink'

28 days. Unusually bright pink skin surrounds crunchy white flesh on a 1–2-inch globe. Very attractive when bunched with radishes of other colors. Resists pithiness.



Data

Data were collected at 8 sites in 2010.

| Trait | 'Pink Beauty' | 'Pretty in Pink' | Same |
|-----------------------------------|---------------|------------------|-------------|
| Germinated best | 0 % | 29 % | 71 % |
| Healthier plants | 14 | 29 | 57 |
| Matured earlier | 57 | 29 | 14 |
| Higher yields | 29 | 29 | 43 |
| More attractive roots | 14 | 57 | 29 |
| Tasted better | 29 | 71 | 0 |
| <i>Preference</i> | 43 | 57 | |
| <i>Recommend to others</i> | 100 | 86 | |
| <i>Overall rating¹</i> | 7.88 | 7.29 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both were very good—flavor was mild.
- Fast germination and rapid growth. Plants looked great. Both looked very pink.

Comments on 'Pink Beauty' Radish

- These were very good in color and taste.
- Nice size and shape.
- Slightly more foliage. Roots were superior in looks (no cracks), taste (milder), and size.
- They did not get as hot. They seemed to mature earlier.
- Larger and more radishes.
- More scarring on them.

Comments on 'Pretty in Pink' Radish

- Five days earlier. Milder. Nice pink color.
- Matured faster and tasted better. It looked very nice; but all in all, just average overall.
- Roots were a little bit larger.
- Better yields.

Conclusions

Gardeners liked the novel color and mild flavor of both varieties. They were impressed with the uniform size and globular shape of 'Pink Beauty' and loved the bright pink color of 'Pretty in Pink'.

Trial 37. Radish, Red

Varieties (information from seed catalogs)

'Champion'

25 days. Very popular radish. Brilliant scarlet-red roots are perfectly round. Very firm and stands well without becoming pithy. Short tops good for bunching. Former All-America Selections winner.

'Cherry Belle'

23 days. Bright cherry-red, round roots. Flesh is pure white, crisp, and mild. Its short tops are good for bunching. Tolerates poor soils. Former All-America Selections winner.



Data

Data were collected at 9 sites in 2010.

| Trait | 'Champion' | 'Cherry Belle' | Same |
|-----------------------------------|------------|----------------|-------------|
| Germinated best | 11 % | 22 % | 67 % |
| Healthier plants | 22 | 33 | 44 |
| Matured earlier | 25 | 25 | 50 |
| Higher yields | 33 | 33 | 33 |
| More attractive roots | 11 | 44 | 44 |
| Tasted better | 11 | 44 | 44 |
| <i>Preference</i> | 33 | 67 | |
| <i>Recommend to others</i> | 56 | 89 | |
| <i>Overall rating¹</i> | 7.22 | 8.11 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- I believe all of the seeds germinated. Plants were nice and healthy. They were ready to harvest at the same time (June 13–16). Very good eating. Both varieties were fantastic. Nicest radishes I've ever had.
- Both looked great and were a nice size on May 25. Both tasted very good.
- Both germinated well and had healthy plants. We picked them at some time. The root shapes between the two varieties were different but both attractive.
- Lots of plants. No health problems. Same yields. Didn't notice a difference in taste.
- Both varieties seemed to go to seed soon.

Comments on 'Champion' Radish

- Tasted better and had a nice color and size.
- Better growth and productivity.
- I liked the elongated shape of 'Champion', but tasted hotter early in season.
- Higher yield. You could let them grow larger without risking they would get woody.

Comments on 'Cherry Belle' Radish

- Rounder shape—looks nice.
- Brighter red—just a little.
- Earlier maturing.
- Nicer shape. Fewer insect problems.
- Tasted better.
- If you pick promptly when they reach a reasonable size you could probably get along with them.

Conclusions

Gardeners liked both varieties, but most preferred 'Cherry Belle'. They liked its mild flavor and round, bright red roots. A few gardeners noted 'Champion' stood better in the field before getting hot and woody.

Trial 38. Radish, White

Varieties (information from seed catalogs)

'Hailstone'

25 days. Creamy white, round roots. Firm flesh that stays crisp for a long time.

'Ping Pong'

30 days. White roots with strong medium-sized tops and an attractive, uniformly round shape. The crisp flesh is mild flavored.



Data

Data were collected at 6 sites in 2009 and 4 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-----------|----------------|-------------|-------------|
| | 'Hailstone' | 'Ping Pong' | Same | 'Hailstone' | 'Ping Pong' | Same | 'Hailstone' | 'Ping Pong' | Same |
| Germinated best | 0 % | 17 % | 83 % | 50 % | 25 % | 25 % | 20 % | 20 % | 60 % |
| Healthier plants | 0 | 25 | 75 | 0 | 25 | 75 | 0 | 25 | 75 |
| Matured earlier | 33 | 33 | 33 | 0 | 25 | 75 | 20 | 30 | 50 |
| Higher yields | 33 | 33 | 33 | 0 | 75 | 25 | 20 | 50 | 30 |
| More attractive roots | 67 | 33 | 0 | 25 | 75 | 0 | 50 | 50 | 0 |
| Tasted better | 67 | 33 | 0 | 0 | 50 | 50 | 40 | 40 | 20 |
| <i>Preference</i> | 50 | 50 | | 0 | 100 | | 30 | 70 | |
| <i>Recommend to others</i> | 20 | 40 | | 100 | 100 | | 52 | 64 | |
| <i>Overall rating¹</i> | 5.33 | 6.33 | | 6.75 | 9.50 | | 5.90 | 7.60 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both varieties produced an abundance of mature roots. We were amazed at how beautifully perfect these varieties were—so round—would be beautiful on a relish tray with red and purple ones. Neither split open.

2010

- Both had a nice, mild flavor.
- Both looked good. Roots were very uniform.

Comments on 'Hailstone' Radish

2009

- Produced big radishes; not as hot. First to eat and it produced higher yields.
- Roots were more uniform in shape, slightly larger, and more tender.

2010

- Flavor is too hot for my taste.

Comments on 'Ping Pong' Radish

2009

- We prefer its size and taste; more productive.

2010

- Lasted so much longer—'Hailstone' went to seed quickly. Roots were more rounded.
- Nice size and very good flavor.
- Roots were nice and smooth. Less likely to split.
- Seemed to be more consistent in size, looks and texture.
- Milder tasting—larger root. Slightly better yield.

Conclusions

Both varieties performed well in Fall 2009 under ideal conditions; although neither was impressive to most gardeners. 'Ping Pong' also excelled under warmer than ideal temps in Spring 2010. This hybrid was more uniform in shape and size, tasted milder, and showed greater resistance to splitting and bolting.

Trial 39. Spinach, Red Stem

Varieties (information from seed catalogs)

'Bordeaux'

21 days baby; 32 days full size. Dark green leaves with red veins. Adds color to salads and cooked meals.

'Red Cardinal'

21 days baby, 32 days full size. Dark green oval leaves with red veins. Upright plants are easy to harvest. Susceptible to bolting (going to seed) in spring.



Data

Data were collected at 12 sites in 2010.

| Trait | 'Bordeaux' | 'Red Cardinal' | Same |
|-----------------------------------|------------|----------------|-----------|
| Germinated best | 0 % | 55 % | 45 % |
| Healthier plants | 0 | 36 | 64 |
| Matured earlier | 20 | 40 | 40 |
| Higher yields | 0 | 60 | 40 |
| More attractive | 10 | 30 | 60 |
| Tasted better | 20 | 30 | 50 |
| <i>Preference</i> | 33 | 67 | |
| <i>Recommend to others</i> | 22 | 65 | |
| <i>Overall rating¹</i> | 4.53 | 5.85 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Neither was much good for freezing because leaves were smaller, but both were good for salads.
- This is a plant for retired people who have nothing better to do than wash tiny leaves. Skimpy yield. I will plant regular green spinach in future.
- Both varieties showed patchy germination and went to seed quickly.
- Neither produced well. Both looked sickly. Both were bolting by the 4th of July. Neither variety looked attractive. They tasted the same.
- Leaves were tender but small. Bolted as soon as weather warmed. I don't plan on planting again. The small leaves may be okay if you want baby spinach.
- The plants of both varieties got stocky and didn't look very attractive. Both tasted good.
- Both produced low yields due to early bolting.

Comments on 'Bordeaux' Spinach

- A little nicer cut leaf appearance. Maybe a little sweeter.
- Slightly healthier than 'Red Cardinal'.
- I prefer its smaller leaves.
- Bolted first. Leaves were pretty but plants were thin. Tasted bitter.
- Didn't perform well at all. Poor germination and slow growth.

Comments on 'Red Cardinal' Spinach

- Matured earlier, yielded more, and was slower to bolt.
- Showed more vigor.
- Sweeter. Better in every category. Pretty rounded leaf.
- Excellent color. Didn't go to seed as quickly as 'Bordeaux'.
- Yielded just a bit more.

Conclusions

Most gardeners preferred 'Red Cardinal' for its higher yields, but neither variety was impressive. Bolting in early summer was a problem. Some gardeners were disappointed with the small size of the leaves and believed these varieties were best suited for use as baby spinach greens.

Trial 40. Spinach, Smooth Leaf

Varieties (information from seed catalogs)

'Olympia'

45 days. Leaves are smooth, making them easy to clean. Excellent for fresh salads. Plants grow fast and are slow to bolt. High yields. Excellent flavor. Upright, 10-inch plants are easy to harvest. Very popular among growers for its reliability.

'Space'

39 days. Smooth, dark green leaves are easy to clean. Plants resist bolting (going to seed), allowing for an extended harvest. Easy to grow.



Data

Data were collected at 18 sites in 2010.

| Trait | 'Olympia' | 'Space' | Same |
|-----------------------------------|-------------|-------------|-----------|
| Germinated best | 35 % | 41 % | 24 % |
| Healthier plants | 38 | 31 | 31 |
| Matured earlier | 27 | 40 | 33 |
| Higher yields | 47 | 33 | 20 |
| More attractive | 53 | 27 | 20 |
| Tasted better | 21 | 21 | 57 |
| <i>Preference</i> | 61 | 39 | |
| <i>Recommend to others</i> | 75 | 75 | |
| <i>Overall rating¹</i> | 7.46 | 7.17 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- We had so many meals of spinach—both raw in salads and cooked—was absolutely the best!
- As long as I cut it back, they both produced all season.
- Both varieties produced very well, had healthy plants, and tasted delicious.
- Both varieties were vigorous and tasty.
- Both tasted great—even after they bolted.
- Tasted the same.
- Ready to harvest on the same day.
- Didn't like the taste of either variety compared to other spinach.

Comments on 'Olympia' Spinach

- Tastes a little better.
- Darker, prettier leaves that didn't get so large—easy to clean.
- Yields were higher and lasted longer.
- Never got bitter. Beautiful plants.
- Slightly more plants and higher yields.
- Nice looking leaves. Great in salads.
- More robust.
- Ready to pick a day or two earlier. It was slower to bolt so I was able to pick it longer than 'Space'. Leaves were curlier, which I like.

Comments on 'Space' Spinach

- Was superior from the beginning. More vigorous and matured 3–4 days earlier.
- More healthy plants. Produced thicker, fuller leaves much earlier than 'Olympia'. Slightly higher yields. It just outperformed 'Olympia' in almost every way!
- Milder taste.
- Had a nice growth habit.
- Produced a little bit more than 'Olympia'. Its leaves were easy to clean.
- Started picking leaves one week earlier.
- Smaller plants with fewer leaves.
- Went to seed earlier.

Conclusions

Both varieties resisted bolting and produced impressive yields of delicious, easy-to-clean leaves. The majority of gardeners preferred 'Olympia' for its higher yields and more attractive leaves.

Trial 41. Squash, Summer Green Zucchini

Varieties (information from seed catalogs)

'Spineless Beauty'

43 days. The few or no spines on the vines make this variety easy to harvest. Plants are medium in size, have an open habit, and produce high yields over an extended season. Delicate flavor. Extra early.

'Zucchini Elite'

48 days. An early hybrid with a classic cylindrical shape. Fruits are best when picked 7–8 inches long, slim, and have a lustrous sheen. Its open plant makes picking easy and the yields are impressive.



Data

Data were collected at 12 sites in 2010.

| Trait | 'Spineless Beauty' | 'Zucchini Elite' | Same |
|-----------------------------------|--------------------|------------------|-------------|
| Germinated best | 18 % | 9 % | 73 % |
| Healthier plants | 20 | 0 | 80 |
| Matured earlier | 33 | 17 | 50 |
| Higher yields | 18 | 18 | 64 |
| More attractive fruits | 27 | 18 | 55 |
| Tasted better | 22 | 11 | 67 |
| <i>Preference</i> | 75 | 25 | |
| <i>Recommend to others</i> | 91 | 82 | |
| <i>Overall rating¹</i> | 8.45 | 8.00 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both varieties were extremely prolific and tasted good.
- Hard to make a choice when they were so much alike: they grew the same, matured at the same time, yielded the same (lots), and the fruits looked and tasted the same.
- Both varieties had healthy plants and very high yields. Their fruits were equally attractive and similar in taste.
- Plant health was awesome! Both were excellent. We planted a second crop in late July that worked well, too.
- Plants were healthy and productive.
- The fruits of these varieties looked about the same.
- They produced equally. The fruits looked the same and tasted the same.

- I had terrible luck with both varieties; the plants grew but I didn't get any yield. My garden is a little shady.

Comments on 'Spineless Beauty' Squash

- I liked not getting pricked by the spines.
- Its young fruit were especially good for cooking and eating raw.
- I really like this variety. It worked well in stir-fry and freezing.
- Zukes were slightly longer. Love the size and texture—grills, steams and fries up great.
- It blossomed and produced fruit sooner.
- Heavy rains fell after sowing. The seedlings of this variety showed greater vigor.

Comments on 'Zucchini Elite' Squash

- Full of blossoms and matured quickly. More fruit. Fruits were long and straighter (less like a bulb). Very good flavor.
- Slightly higher yields. Fruits were darker and very smooth.
- Matured earlier; a small one good for the grill. Fruits seemed to be more slender with darker skin. Plants wilted down faster and had sharper prickles on the stems.

Conclusions

'Spineless Beauty' and 'Zucchini Elite' were outstanding. Their plants were healthy and extremely productive. Their fruits were attractive and delicious. There was very little difference between the two varieties. Most gardeners preferred 'Spineless Beauty'. Its spineless vines and open habit allowed for an easy harvest.

Trial 42. Squash, Summer Yellow Specialty

Varieties (information from seed catalogs)

‘Papaya Pear’

45 days. Bright yellow fruit adds color to stir fries and is delicious when sautéed. The semi-bush plants produce lots of squash. Best picked young, 3 inches in diameter. 2003 All-America Selections winner.

‘Sunburst’

51 days. Early and productive. The bright, tender squash fruits have succulent buttery flavor. Vigorous plant. 1985 All-America Selections winner.



Data

Data were collected at 9 sites in 2010.

| Trait | ‘Papaya Pear’ | ‘Sunburst’ | Same |
|-----------------------------------|---------------|-------------|-------------|
| Germinated best | 14 % | 29 % | 57 % |
| Healthier plants | 43 | 14 | 43 |
| Matured earlier | 38 | 25 | 38 |
| Higher yields | 50 | 25 | 25 |
| More attractive fruits | 0 | 67 | 33 |
| Tasted better | 0 | 38 | 63 |
| <i>Preference</i> | 13 | 88 | |
| <i>Recommend to others</i> | 75 | 100 | |
| <i>Overall rating¹</i> | 7.11 | 8.44 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- I really enjoyed both of these varieties—the colors of these varieties, mixed with the green zucchini was a great addition to my dishes. Freezes well too. I showed the fruits to people at work; they didn’t know what they were or how to use them, but now they do!
- They both kept in the fridge equally well.

Comments on ‘Papaya Pear’ Squash

- Matured eight days earlier. Higher yields.
- Higher yields; healthier plants.
- Vines were bigger and more aggressive.
- Fruits were less likely to get seedy as they larger.

Comments on ‘Sunburst’ Squash

- They are very attractive. Cute with bright lighter color. Vines got mildew first.
- Looked really attractive.
- Cooler looking.
- I like ‘Sunburst’; it seems to have a softer peeling.
- Produced fewer fruits, but its fruits were more tender and the seeds were smaller and usually edible—unlike those of ‘Papaya Pear’.
- Many more fruits, especially over time. ‘Papaya Pear’ tired out in late July. The fruits of ‘Sunburst’ were much more attractive and interesting looking; pretty in dishes when sliced. Nice flesh and thin skins. Better squash flavor
- Stored better when picked small.

Conclusions

Gardeners liked both of these All-American varieties. The vines of both varieties were productive and the fruits were colorful. ‘Papaya Pear’ was especially productive, but gardeners preferred ‘Sunburst’ for the beauty and quality of its fruits.

Trial 43. Squash, Summer Yellow Straightneck

Varieties (information from seed catalogs)

'Multipik'

50 days. High yielding squash of excellent quality. Its precocious gene ensures fruits turn yellow when young and avoids green streaking caused by viruses. Semi-bush plants. Rich yellow fruits with a medium bulb. Good producer of male blossoms for cooking.

'Sunray'

50 days. High yields of smooth squash that hold their diameter well without bulbing. Large bush-type plants tolerate powdery mildew and have an open habit, allowing for easy harvest. Its precocious gene turns fruits and stems yellow when young and prevents green streaking.

Data

Data were collected at 8 sites in 2010.

| Trait | 'Multipik' | 'Sunray' | Same |
|-----------------------------------|------------|-------------|-------------|
| Germinated best | 14 % | 14 % | 71 % |
| Healthier plants | 0 | 33 | 67 |
| Matured earlier | 43 | 14 | 43 |
| Higher yields | 29 | 29 | 43 |
| More attractive fruits | 14 | 57 | 29 |
| Tasted better | 0 | 29 | 71 |
| <i>Preference</i> | 17 | 83 | |
| <i>Recommend to others</i> | 75 | 88 | |
| <i>Overall rating¹</i> | 6.13 | 7.50 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both took off at record speeds, producing large plants with nearly identical fruits. Maybe I'm not so discerning, being a beginning gardener, but I could not tell the difference between the two. I would highly recommend either variety as a hearty, prolific, easy to care for crop. I would recommend these varieties to any beginning gardener. My friends and family are thankful the growing season is over and they no longer have to politely accept a bag of squash every time I see them. I also became creative in dreaming up ways of introducing summer squash into my daily diet—my favorite invention was summer squash on pizza. The majority of the harvest went to food pantries. The fruits were also easy to freeze.



- Very high yields. Both had excellent fruit most of the time, but both also occasionally had very hard peelings and both had short shelf life.
- In one day I harvested over 40 off of each variety! These plants just seemed to produce. I could go out twice a day and pick. I wish I had more ways of preparing summer squash. We gave it to friends and co-workers. Too bad my horses wouldn't eat it.
- Not enough friends to give them to!

Comments on 'Multipik' Squash

- Earlier fruit; more fruit.

Comments on 'Sunray' Squash

- The fruits did not get as bumpy. They were easier to slice.
- Matured earlier. Fruits sized up slower.
- I like the taste of 'Sunray' better. It was a bit more tangy, but not too much so.

Conclusions

Our gardeners were amazed at the productivity of these varieties. Differences were subtle, but most gardeners preferred 'Sunray' for its smooth and attractive fruits.

Trial 44. Squash, Winter Acorn

Varieties (information from seed catalogs)

'Honey Bear'

85 days. Smaller, 1-pound fruits are just the right size when halved for single servings. The dark green fruits have yellow-orange flesh that is "sweet as honey." Its compact vines spread only 4–5 feet and produce 3–5 fruits. Tolerant to powdery mildew. All-America Selections Winner.

'Table King'

75 days. Vigorous compact bush produces impressive yields of quality fruits. The glossy, dark green fruits are full-sized (2 pounds). The pale orange flesh is delicious and will improve in storage. Small seed cavity. All-America Selections Winner.

Data

Data were collected at 11 sites in 2010.

| Trait | 'Honey Bear' | 'Table King' | Same |
|-----------------------------------|--------------|--------------|-------------|
| Germinated best | 9 % | 36 % | 55 % |
| Healthier plants | 10 | 40 | 50 |
| Matured earlier | 25 | 38 | 38 |
| Higher yields | 40 | 40 | 20 |
| More attractive fruits | 44 | 33 | 22 |
| Tasted better | 17 | 33 | 50 |
| <i>Preference</i> | 40 | 60 | |
| <i>Recommend to others</i> | 50 | 60 | |
| <i>Overall rating¹</i> | 5.67 | 5.80 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Nice healthy plants. The fruits looked nice and my family enjoyed eating them.
- Both had good taste.
- Only about five fruits per plant.
- No production.
- They were both dry and tasteless.



Comments on 'Honey Bear' Squash

- Plants were very healthy. They produced 5 fruits compared to none for 'Table King'. I would like to try 'Honey Bear' again.
- Tasted much sweeter, produced more, stayed compact, and were very nice small round squash. I would microwave the whole thing for 4–5 minutes and then cut it in half, and it was perfect for two people. 'Table King' was okay for an acorn squash, but 'Honey Bear' was so much better.
- Higher yields (10 versus 8 fruits). My grandkids prefer the taste of this variety, although they enjoyed the fruits of both varieties.
- Spots were all over the fruits.

Comments on 'Table King' Squash

- Larger squash; better color; produced more.
- Plants showed more vigor.
- Slightly bigger fruit and a little heavier yielder.
- Produced better in the wet weather this year.
- Slow to germinate and plants were very small. Seems to mature too late for our area.
- Better taste and better germination.
- Had the first blossoms.

Conclusions

Gardeners were not excited about either variety. Neither variety was especially productive. The slight edge went to 'Table King', which showed more vigor and produced larger fruits. Some gardeners preferred the cute, smaller fruits of 'Honey Bear'. Although both varieties are semi-bush and suited for gardens with limited space, the vines of 'Honey Bear' were especially compact.

Trial 45. Squash, Winter Buttercup

Varieties (information from seed catalogs)

'Burgess'

85 days. A popular winter squash varieties. Dark green fruits weigh about 3 pounds and have a distinct cup on the bottom. The flesh is golden, dry, sweet, and full of flavor. Excellent for storage and freezing.

'Uncle David's Dakota Dessert'

100 days. Developed in North Dakota. Its thick, golden flesh is very flavorful. The vines are vigorous and produce good yields.

Data

Data were collected at 34 sites in 2010.

| Trait | 'U.D. Dakota | | |
|-----------------------------------|--------------|-------------|-------------|
| | 'Burgess' | Dessert' | Same |
| Germinated best | 33 % | 20 % | 47 % |
| Healthier plants | 21 | 21 | 57 |
| Matured earlier | 50 | 17 | 33 |
| Higher yields | 37 | 33 | 30 |
| More attractive fruits | 23 | 18 | 59 |
| Tasted better | 30 | 20 | 50 |
| <i>Preference</i> | 56 | 44 | |
| <i>Recommend to others</i> | 76 | 65 | |
| <i>Overall rating¹</i> | 7.41 | 7.41 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Plants were healthy and the squash of both varieties tasted very good.
- Both taste excellent.
- Vines of both varieties were okay, nice, and compact. Similar yields.
- These were so equal all the way through the season. Couldn't really pick one over the other.
- Both had healthy plants.
- The plants of neither variety were healthy. They did not produce any fruits.
- Vines were very small and didn't produce fruit.
- Beautiful plants but neither variety produced many fruit.
- Overall yields for both were not great.
- Neither produced squash big enough to eat.



Comments on 'Burgess' Squash

- Produced 3–4 times more fruits, but its taste wasn't very sweet.
- I like both, but 'Burgess' has a higher yield.
- We are amazed at the great yield and flavor even after freezing.
- Very deep flesh and not as dry.
- Faster maturing; larger fruit.
- Squash were larger and tastier.
- Higher yield and faster maturity. Fruits were larger (twice as big) and nicer looking.
- Plants turned brown and died while those of 'Uncle David's Dakota Dessert' stayed healthy.

Comments on 'Uncle David's Dakota Dessert' Squash

- Its flesh was very sweet.
- Slightly more productive. Has a denser and less moist flesh. I prefer a drier flesh for eating.
- I liked the texture of its fruits better (smoother and creamier), and the flavor was just a little more robust, too.
- Beautiful, uniform squash. We harvested 28 squash.
- This summer we faced all kinds of elements—hail, wind, lots of rain—but this variety was sturdier. Produced more squash.
- Smoother skin. Moister flesh.

Conclusions

Gardeners were satisfied with both varieties. 'Burgess' was earlier and its fruits were generally larger. Differences in yield and taste preferences were not significant.

Trial 46. Squash, Winter Butternut

Varieties (information from seed catalogs)

‘Early Butternut’

85 days. Fruit average 8 inches long with the typical "bell" on the end. Uniformity of size and shape is excellent and yields are impressive. Early. Compact vines.

‘Waltham’

110 days. The most popular butternut variety. Fruits are uniformly large with straight necks. Stores well.



Data

Data were collected at 15 sites in 2009 and 9 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|-------------------|-------------|-----------|-------------------|-------------|-------------|-------------------|-------------|-----------|
| | ‘Early Butternut’ | ‘Wal-tham’ | Same | ‘Early Butternut’ | ‘Wal-tham’ | Same | ‘Early Butternut’ | ‘Wal-tham’ | Same |
| Germinated best | 50 % | 14 % | 36 % | 33 % | 17 % | 50 % | 44 % | 15 % | 41 % |
| Healthier plants | 29 | 29 | 43 | 33 | 0 | 67 | 31 | 18 | 52 |
| Matured earlier | 36 | 21 | 43 | 17 | 50 | 33 | 29 | 32 | 39 |
| Higher yields | 21 | 43 | 36 | 0 | 50 | 50 | 13 | 46 | 41 |
| More attractive | 17 | 25 | 58 | 0 | 33 | 67 | 11 | 28 | 61 |
| Tasted better | 10 | 20 | 70 | 17 | 0 | 83 | 13 | 13 | 75 |
| <i>Preference</i> | 42 | 58 | | 60 | 40 | | 49 | 51 | |
| <i>Recommend to others</i> | 62 | 62 | | 83 | 100 | | 70 | 76 | |
| <i>Overall rating¹</i> | 6.85 | 6.85 | | 8.33 | 9.00 | | 7.41 | 7.66 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Neither variety produced a ripe fruit.

2010

- Both had high yield and good flavor.

Comments on ‘Early Butternut’ Squash

2009

- Much better yield (41 fruits compared to 22 for ‘Waltham’) and healthier plants.

2010

- Great flavor!
- Matured a lot earlier. All the squash were ripe (many of the fruit of ‘Waltham’ didn’t ripen at harvest [October 16]). The vines didn’t spread all over the garden. The squash had a smaller seed cavity and its flesh had a smoother texture.

Comments on ‘Waltham’ Squash

2009

- I prefer its firm, moist texture; not stringy.
- Bigger plants (twice as big) and bigger yields.

2010

- Produced more squash, but lots were not ripe. This variety might be good for a huge garden.
- Thick flesh with very few seeds. Squash was larger and matured earlier.

Conclusions

Both varieties struggled under the cool temperatures of 2009, but grew well under the “normal” temperatures of 2010. Gardeners generally like both varieties. The vines of ‘Waltham’ showed robust growth and produced a higher yield; whereas the semi-bush habit of ‘Early Butternut’ was appreciated by gardeners with limited space. Gardeners enjoyed eating the fruits of both varieties and did not express a clear taste preference.

Trial 47. Squash, Winter Hubbard

Varieties (information from seed catalogs)

'Lakota'

90 days. A gorgeous, teardrop-shaped, hubbard squash grown by the Lakota Sioux. It exhibits decorative qualities with a sweet and nutty, deep-orange flesh. Fruits weigh 5–7 pounds.

'Red Kuri'

92 days. Rich, scarlet fruits have smooth-textured flesh. Good for pies and purées because specks of skin (being red) will not show. Also known as 'Orange Hokkaido'. Fruits weigh 4–7 pounds.



Data

Data were collected at 10 sites in 2010.

| Trait | 'Lakota' | 'Red Kuri' | Same |
|-----------------------------------|-----------|-------------|-----------|
| Germinated best | 22 % | 44 % | 33 % |
| Healthier plants | 29 | 29 | 43 |
| Matured earlier | 43 | 14 | 43 |
| Higher yields | 14 | 57 | 29 |
| More attractive fruits | 43 | 29 | 29 |
| Tasted better | 33 | 33 | 33 |
| <i>Preference</i> | 40 | 60 | |
| <i>Recommend to others</i> | 70 | 70 | |
| <i>Overall rating¹</i> | 6.71 | 7.29 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- These have a great shape.
- I like its flavor, but my wife prefers buttercup squash.
- Strong plants.
- It is so beautiful—it can be used as an ornamental.

Comments on 'Lakota' Squash

- Different shapes and colors! Funny.
- I prefer 'Lakota' because of the sweeter taste. That's the only feature that gives it an edge.
- Lots of fruits!
- Just didn't do much in the garden.
- It's feels good to grow a variety grown for centuries by the native Americans of North Dakota.

Comments on 'Red Kuri' Squash

- The best—hands down.
- Germinated better and produced higher yields. It produced 311 pounds of fruit (5.5 pounds each), compared to 160 pounds (10.7 pounds each) for 'Lakota'. Richer, but not sweeter flavor.
- Higher yield.
- Several more fruits. More uniform in size and purer in color. Loved its texture and amount of moisture.
- The only variety that produced—but they were very small.
- My 87-year-old mother has been bringing squash for a bingo prize at the local senior citizen's center. They hold bingo on Monday afternoons and the players bring the prizes. She brought a 'Red Kuri' squash each week for four weeks in a row. It was quite the coveted prize.

Conclusions

Neither variety was exceptional, but gardeners liked both of them. The majority of gardeners preferred 'Red Kuri' for its impressive yields and rich flavor. They also enjoyed the beauty and sweetness of our North Dakota native squash 'Lakota'.

Trial 48. Swiss Chard, Gold

Varieties (information from seed catalogs)

'Bright Yellow'

30 days baby, 57 days full size. Bright yellow stems and leaf veins contrast with deep green leaves. Beautiful as a baby green in salad mixes or harvested later for bunching.

'Orange Fantasia'

35 days baby, 60 days. Vivid orange stalks make a brilliant contrast with the dark green, crinkly leaves. Crisp and pleasing chard flavor. Upright growth.



Data

Data were collected at 4 sites in 2010.

| Trait | 'Bright Yellow' | 'Orange Fantasia' | Same |
|-----------------------------------|-----------------|-------------------|--------------|
| Germinated best | 0 % | 0 % | 100 % |
| Healthier plants | 50 | 0 | 50 |
| Matured earlier | 75 | 0 | 25 |
| Higher yields | 0 | 25 | 75 |
| More attractive | 0 | 50 | 50 |
| Tasted better | 0 | 0 | 100 |
| <i>Preference</i> | 50 | 50 | |
| <i>Recommend to others</i> | 100 | 75 | |
| <i>Overall rating¹</i> | 8.25 | 8.00 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Near 100% germination. Nice, big healthy plants. Both looked very nice—very colorful and healthy.
- Both were delicious and looked nice. Healthy plants.
- These are both attractive plants.
- Both varieties grew well in my saline soil—better than other veggies in my garden.

Comments on 'Bright Yellow' Chard

- Liked its young leaves for salad mixes. It was hard to determine a preference at maturity but the 'Bright Yellow' was more appealing.
- More vigorous as a young plant. Quicker to maturity. Ribs started more yellow than gold when plants were young and then turned the same gold color of 'Orange Fantasia'.

Comments on 'Orange Fantasia' Chard

- Gave my garden a unique look!
- Brighter orange color.

Conclusions

Not many gardeners were interested in this trial, but those who participated were impressed with both varieties. It is interesting to note they all loved the *beauty* of the plants and none mentioned the *flavor* of this vegetable. 'Bright Yellow' was vigorous when young and is well suited for baby greens production. Its ribs are sunny yellow when young, turning gold as the plants mature. The bright orange ribs of 'Orange Fantasia' were also very attractive.

Trial 49. Swiss Chard, Red

Varieties (information from seed catalogs)

'Magenta Sunset'

28 days baby, 55 days full size. Striking, pink-veined leaves add beauty to a salad mixes when young. At full size, the stems and smooth leaves have a mild flavor.

'Rhubarb'

32 days baby, 60 days full size. A very showy chard. The large leaves are deep green with red veins. Both stems and leaves are delicious to eat.



Data

Data were collected at 11 sites in 2009 and 4 sites in 2010.

| Trait | 2009 | | | 2010 | | | Weighted Total | | |
|-----------------------------------|------------------|-------------|-----------|------------------|-------------|-------------|------------------|-------------|-----------|
| | 'Magenta Sunset' | 'Rhubarb' | Same | 'Magenta Sunset' | 'Rhubarb' | Same | 'Magenta Sunset' | 'Rhubarb' | Same |
| Germinated best | 20 % | 60 % | 20 % | 25 % | 25 % | 50 % | 21 % | 51 % | 28 % |
| Healthier plants | 22 | 67 | 11 | 25 | 50 | 25 | 23 | 62 | 15 |
| Matured earlier | 29 | 43 | 29 | 75 | 0 | 25 | 41 | 32 | 28 |
| Higher yields | 43 | 43 | 14 | 25 | 25 | 50 | 38 | 38 | 24 |
| More attractive | 29 | 29 | 43 | 25 | 75 | 0 | 28 | 41 | 32 |
| Tasted better | 17 | 33 | 50 | 25 | 25 | 50 | 19 | 31 | 50 |
| <i>Preference</i> | 43 | 57 | | 50 | 50 | | 45 | 55 | |
| <i>Recommend to others</i> | 38 | 50 | | 50 | 50 | | 41 | 50 | |
| <i>Overall rating¹</i> | 5.14 | 5.43 | | 7.00 | 7.00 | | 5.64 | 5.85 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

2009

- Both looked medium green with thick leaves.

2010

- I did not like the taste of either of these varieties.

Comments on 'Sunset Magenta' Chard

2009

- Better germination and more robust plants.
- Picked twice—higher yields. Nice mild flavor with the cool weather.

2010

- Plants were larger and healthier.
- Germinated sooner; tasted better; seemed healthier; milder flavor; a tamer plant.
- The magenta color was not as brilliant as hoped.

Comments on 'Rhubarb' Chard

2009

- These plants were bigger and were a nicer color. We really enjoy the taste of 'Rhubarb'.
- Looked more colorful.

2010

- Much better color. More attractive as a baby green. More robust growth, too.
- Better germination; liked the color; good production late into the season (end of September).

Conclusions

Gardeners were not excited about either variety, but most preferred 'Rhubarb'. They liked the vigor of its plants and the vivid contrast between the dark green and rich red colors of its leaves. Some gardeners noted the mild flavor of 'Magenta Sunset'.

Trial 50. Swiss Chard, White

Varieties (information from seed catalogs)

'Fordhook Giant'

25 days baby, 50 days full size. Leaves are medium green and crinkled with white veins and broad, white stems. A popular and productive variety. Grows 24–28 inches.

'Lucullus'

25 days baby, 50 days full size. Large, green leaves with celery-like stalks. Very crinkly. Mild flavor. Grows 28 inches.



Data

Data were collected at 3 sites in 2010.

| Trait | 'Fordhook Giant' | 'Lucullus' | Same |
|-----------------------------------|------------------|-------------|------------|
| Germinated best | 67 % | 0 % | 33 % |
| Healthier plants | 0 | 33 | 67 |
| Matured earlier | 0 | 67 | 33 |
| Higher yields | 0 | 0 | 100 |
| More attractive | 0 | 67 | 33 |
| Tasted better | 0 | 33 | 67 |
| <i>Preference</i> | <i>0</i> | <i>100</i> | |
| <i>Recommend to others</i> | <i>33</i> | <i>67</i> | |
| <i>Overall rating¹</i> | <i>6.00</i> | <i>7.00</i> | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both varieties stood tall and produced well. Very good production. Could not taste any difference; both were good.
- I love to cook and eat vegetable greens, but did not like the flavor of either of these varieties. I will not grow them again.

Comments on 'Fordhook Giant' Chard

- I did not like its wider, longer stalk.

Comments on 'Lucullus' Chard

- Its leaves were very crinkly and attractive.
- Leaves were more uniformly green in color.

Conclusions

It is hard to make a recommendation since few gardeners were interested in participating in this trial. Neither of the varieties stood out as being exceptionally good or bad. The few growers who did participate in the trial preferred 'Lucullus' primarily on the basis of its very crinkly, attractive leaves.

Trial 51. Watermelon, Gold

Varieties (information from seed catalogs)

'Gold Flower'

75 days. This Chinese variety is early and high yielding. Super thin rind with sweet yellow and orange bicolor flesh. The fruits are small and cylindrical, about 12 inches long and only 6 inches wide.

'Orangeglo'

95 days. Unique melon with very sweet, deep orange flesh. Crisp and flavorful. Its rind is light green with jagged dark green stripes. Fruits are oblong and large (20–30 pounds). Good yields in the Midwest.



Data

Data were collected at 14 sites in 2010.

| Trait | 'Gold Flower' | 'Orangeglo' | Same |
|-----------------------------------|---------------|-------------|-------------|
| Germinated best | 17 % | 25 % | 58 % |
| Healthier plants | 36 | 27 | 36 |
| Matured earlier | 70 | 20 | 10 |
| Higher yields | 70 | 10 | 20 |
| More attractive fruits | 50 | 50 | 0 |
| Tasted better | 75 | 13 | 13 |
| <i>Preference</i> | 75 | 25 | |
| <i>Recommend to others</i> | 47 | 19 | |
| <i>Overall rating¹</i> | 5.41 | 3.89 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Both tasted good.
- None of them ripened.
- No melons ripened. Not hot enough this year.
- Both of them had melons that were mushy or rotten.
- I recommend neither variety due to lack of growth and production. Both had mostly rotten and immature fruit.

Comments on 'Gold Flower' Watermelon

- Much earlier, sweeter, and had very crisp texture.
- My daughter likes this variety best.

- Ripened three weeks earlier. Produced three times more melons. The shape looks different, but nice. Sweeter and crisper by a big margin.
- The interior was more yellow than orange. They tasted and smelled very good. My family loved this melon! My family's only complaint is that they had to wait the entire summer and we wished the plants could produce more melons.
- Melons were very small and cracked open. Did have a pretty good flavor.

Comments on 'Orangeglo' Watermelon

- Better vigor and vine growth. Only one edible melon was harvested. This melon compared well to other orange-flesh melons I have grown in the past. I give it a score of 8.5 for flavor.
- Larger, but not that sweet. Had hollow spots.
- Not much flavor. I won't grow it again.
- Did not produce a decent melon.
- The melons were bigger and the plants grew better. Nice size and shape.
- Vines looked good but never produced a melon.
- Succumbed to wilt disease.

Conclusions

Neither variety was great, but 'Gold Flower' was much earlier and more productive. Its flesh was attractive, crisp, and sweet. Gardeners expressed concerns over the small size, thin rind, and susceptibility to cracking of its melons in the field. 'Orangeglo' had a more traditional watermelon size and shape, but was slow to ripen, unreliable in our cool climate, and not very sweet.

Trial 52. Watermelon, Red

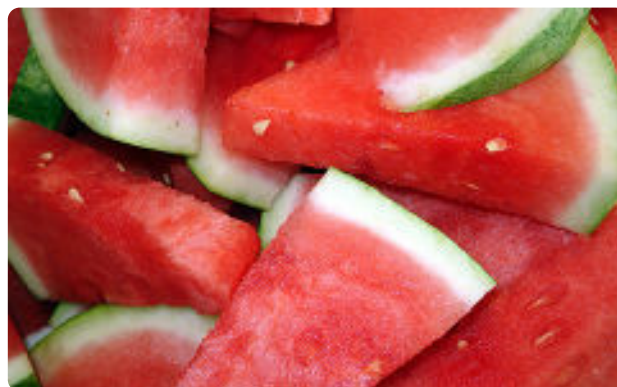
Varieties (information from seed catalogs)

‘Sugar Baby’

80 days. Very popular icebox type with good keeping quality. Round melons average 8–10 pounds. Its distinctive, dark green rind is thin, but fairly tough. Flesh is deep red, crisp, and very sweet. Small seeds.

‘Sweet Dakota Rose’

85 days. Very sweet, bright red flesh has very few seeds. Developed in North Dakota and well adapted to our cool, short season. Melons range in weight from 10 to 20 pounds.



Data

Data were collected at 42 sites in 2010.

| Trait | ‘Sugar Baby’ | ‘Sweet Dakota Rose’ | Same |
|-----------------------------------|--------------|---------------------|-----------|
| Germinated best | 49 % | 27 % | 24 % |
| Healthier plants | 36 | 18 | 46 |
| Matured earlier | 51 | 29 | 20 |
| Higher yields | 47 | 33 | 19 |
| More attractive fruits | 21 | 53 | 26 |
| Tasted better | 29 | 46 | 25 |
| <i>Preference</i> | 49 | 51 | |
| <i>Recommend to others</i> | 44 | 57 | |
| <i>Overall rating¹</i> | 4.61 | 4.95 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- Very successful crop with both varieties.
- Vines were healthy and melons of both varieties ripened the same day.
- Sowed May 30. Only one plant came up—it produced one little melon.
- Both seemed slow to start, but in the end grew fast. Vines were healthy. Fruits were small and then we had wet weather and fruits began to rot. None ripened.
- Germination was spotty. Vines were healthy but neither variety provided ripe melons due to cool, wet spring and summer.
- Poor germination (sowed May 30).
- I wish I could have used a couple more weeks before it froze out and they both would have been better.

- Vines of both varieties ran like the wind!
- Planted late (June 19) and no vines set fruit.
- We did not harvest any watermelons. Most seeds never germinated.
- Poor germination (sowed June 1).
- Plants of both varieties grew well but neither variety produced a fully ripe melon. ‘Sugar Baby’ did ripen enough to be enjoyed.
- Only got one ripe melon of each variety.
- Only a few plants germinated and only one tiny melon was produced in this trial.
- Neither variety ever produced melons that were fully matured and ready to eat.
- No melons ripened.
- No fruit. Crop failure.
- None of these ripened.

Comments on ‘Sugar Baby’ Watermelon

- Melons were smaller, but more evenly ripe.
- Higher yields. More uniform size and shape. Sweeter melons.
- Produced more fruit, but they had more seeds.
- Didn’t get a watermelon.
- Melons were small and didn’t ripen all the way.
- Produced more ripe melons.
- Two weeks earlier.
- One melon, which was one more than ‘Sweet Dakota Rose’.
- The only variety to produce a ripe melon, but the melons were too small to feed a family.
- If you are looking for a fast ripening melon, pick ‘Sugar Baby’.
- Matured a week earlier.
- This was the only variety to produce fruit.

More Comments on 'Sugar Baby' Watermelon

- Averaged two good melons per plant while 'Sweet Dakota Rose' produced one. Flavor was sweeter and more complex. This variety seems to thrive better here. Perhaps its dark rind helps absorb heat. It is more reliable.
- Very sweet—lots of seeds—not many fruit.
- Better yield.
- Slightly healthier plants.
- Produced only one melon big enough to eat—it had lots of seeds.

Comments on 'Sweet Dakota Rose' Watermelon

- Melon is much bigger and has the appearance of commercial varieties.
- Big, pretty melons. I recommend this variety but won't try growing them again.
- Larger melons. Produced more.
- Better flavor and produced more melons.
- So sweet and juicy; one of the best melons we had this year, even compared to store bought.
- I enjoyed this watermelon.
- Much better producer—nice, sweet melons.
- Larger yield.
- Didn't produce any watermelons.
- Produced the biggest melons (basketball size compared to softball size of 'Sugar Baby'). None ripened.
- A friend of mine who does some gardening stopped over and tried the 'Sweet Dakota Rose' watermelon. He could not believe the size, color, and taste. He said it was the best watermelon he had ever tasted.
- Melons were larger, although some were deformed.
- Delicious, but only produced one melon.

- Never did get any watermelons of this variety to ripen.
- Produced only two melons and they were poorly shaped.
- Flesh was redder and sweeter.
- Better taste—sweeter and more "watermelon". Pretty—I like the stripes!
- We liked both, but 'Sweet Dakota Rose' had fewer seeds and was a bit sweeter.
- No seeds came up.
- Plants died. No melons.
- Its watermelons grew larger, tasted better, and it was easier to determine when they were ripe.
- Watermelons were larger, but never ripened.
- Germinated better and had healthier plants. Larger melons and more melons. Melons were larger and nicely shaped. Great taste. This was a very long growing season. In a shorter season, this variety might not perform as well because it is a fairly late melon.
- Only produced one melon ('Sugar Baby' produced three). I like its striped fruit. The fruit was sweeter and seemed to have fewer seeds.
- Never got bigger than a baseball.

Conclusions

Gardeners were especially excited this spring about 'Sweet Dakota Rose' and hoping we had finally identified a reliable watermelon in the Northern Plains. The weather cooperated (temperatures were normal and rainfall was plentiful), but yields of both varieties were poor. Both varieties received low ratings. 'Sugar Baby' matured earlier and produced higher yields, but no one was excited about the size and flavor of its fruits. 'Sweet Dakota Rose' was not reliable, but a few gardeners (especially in the southern half of the state) got at least one ripe melon. They liked the size and stripes on the melons—and loved its taste.

Trial 53. Watermelon, Yellow

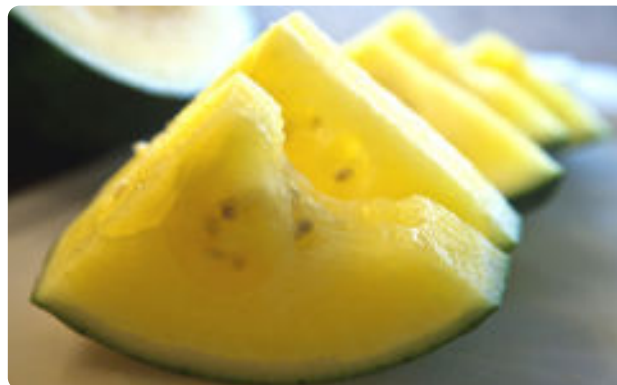
Varieties (information from seed catalogs)

‘Yellow Alice’

68 days. New melon from Korea. Yellow flesh is very sweet and delicious. The plant is very vigorous and very productive. Very easy to grow.

‘Yellow Doll’

68 days. An extra early variety with very sweet yellow flesh. Its semi-compact vines produce round to oval, medium green melons with dark green stripes. Melons average 5 pounds each. Thin rinds.



Data

Data were collected at 14 sites in 2010.

| Trait | ‘Yellow Alice’ | ‘Yellow Doll’ | Same |
|-----------------------------------|----------------|---------------|-----------|
| Germinated best | 58 % | 33 % | 8 % |
| Healthier plants | 30 | 40 | 30 |
| Matured earlier | 40 | 20 | 40 |
| Higher yields | 9 | 55 | 36 |
| More attractive fruits | 18 | 55 | 27 |
| Tasted better | 18 | 73 | 9 |
| <i>Preference</i> | 36 | 64 | |
| <i>Recommend to others</i> | 29 | 79 | |
| <i>Overall rating¹</i> | 4.67 | 5.75 | |

¹Rated on a scale of 1 to 10, with 1 = poor and 10 = excellent.

General Comments

- The melons of both varieties were delicious.
- Very poor germination (10–25 %) and neither variety produced a melon we could eat.
- Both were slow to germinate in my greenhouse.
- Germination was not very good.
- The growing season was too cold.

Comments on ‘Yellow Alice’ Watermelon

- Showed more vigor and tolerated drought better.
- Melons were larger and sweeter.
- Good in every way except taste. Nice vines; nice sized fruit; no taste.

Comments on ‘Yellow Doll’ Watermelon

- ‘Yellow Doll’ performed the best of all melons in my garden. Very nice flavor—sweet and juicy.
- Matured at least a week earlier. Very good tasting. Plants were strong.
- My friends and I all prefer the taste of ‘Yellow Doll’.
- Tasted better by far.
- Tastes better.
- Produced more melons, but melons were small.

Conclusions

‘Yellow Doll’ was superior, but neither variety excelled. Both varieties got off to slow starts and yields were low. Most gardeners enjoyed the taste of ‘Yellow Doll’ and recommended the variety. ‘Yellow Alice’ performed poorly.

Appendixes

Appendix 1. Welcome Letter

Spring 2010

Dear Gardener,

Welcome to our research team! It will be fun to work with you this summer. Enclosed are the seeds you ordered. If you are missing anything, please let me know.

Now let's go over some key points:

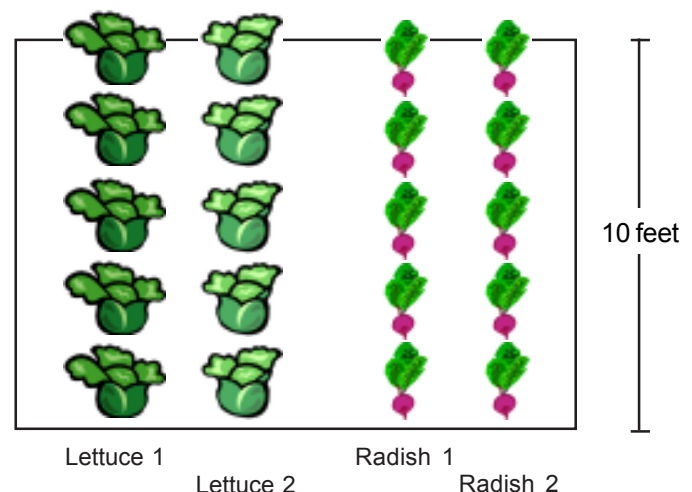
1. Each trial compares two varieties. **You must plant both varieties.**
2. To make it a fair comparison, you need to **treat both varieties in the same manner.** They should get the same amount of sunlight and general care (watering and fertilizing).
3. We want to see how these varieties perform under real-life home garden situations. The seed packets have some instructions on how to sow your seeds, but you may use your own gardening practices. For example, I sow my cucumber seeds in a *row*, but you can plant them in *hills*, if you wish. It's up to you.
4. When possible, **grow the vegetables in rows next to each other.** You have enough seeds to grow at least 10 feet of each variety. To make it easier for you, I've enclosed a yellow row marker with string. There is a 10-foot space between the two blue marks on the string. It's okay if you don't have quite enough space for 10-foot rows, but try to sow close to that much area. We want to get a fair look at both varieties. Look at the diagram below. Notice that the varieties being compared are grown next to each other. In this way, they are most likely to get the same amount of sunlight and care.
5. **Use the plot labels** that are enclosed. This will help you remember which variety is which. I recommend you **make a plot diagram after you are done planting** for your future reference. The plot labels sometimes fade in the sun during summertime.

If you have any questions, please don't hesitate to ask. I'll be happy to help.

Again, thanks for joining our team. If you know of a friend who may be interested in joining us, please share the enclosed brochure. Thanks!

Sincerely,

Tom Kalb
Horticulture Educator
tom.kalb@ndsu.edu



Appendix 2. Example of Evaluation Form

Muskmelon Variety Trial

2010 Trial #19

Gardener Name: Ima Gardener

County: Golden Valley

Date Sown: May 30

| Which variety? | Apollo | Zeus | Same | Comments |
|---------------------------------|--------|------|------|--|
| Germinated best? | | X | | Both had near 100% germination, but Zeus seedlings showed more vigor |
| Had healthier plants? | | X | | Apollo vines turned gray in fall |
| Produced the first ripe melons? | X | | | Three days earlier than Zeus |
| Produced higher yields? | | X | | Zeus produced 10 good melons; Apollo produced only 6 |
| Had more attractive melons? | | X | | Zeus had larger fruits and brighter orange flesh |
| Tasted better? | | X | | Zeus was heavenly; Apollo was not quite as sweet |

| Overall Performance Rating | Apollo | Zeus |
|---|--------|------|
| Rate each variety on a scale of 1 to 10, with 1 = poor and 5 = good and 10 = excellent. Don't give both a "10". Be very critical! | 5 | 9 |

| Preference | |
|---|------------------|
| Circle the variety you prefer. Don't circle both—make a choice! | Apollo Zeus |
| Please state the reason(s) for your preference: <i>Zeus was outstanding. Good yields of large, sweet fruits. The vines looked healthy all summer. Apollo ripened early, but the vines were weak and the melons tasted bland.</i> | |

| Recommendation |
|---|
| Circle the varieties you recommend for North Dakota gardeners: Apollo Zeus Both Neither |

Please write any additional comments on back. They are very helpful!

Send to Tom Kalb, NDSU-Extension, 3715 East Bismarck Expressway, Bismarck, ND 58501.

E-mail: <tom.kalb@ndsu.edu>. Thanks for your participation!

Appendix 3. Acknowledgements

Gardeners

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| | | |
|-----------------------------------|------------------------------------|-----------------------------------|
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| Duane R. Bentz | Ruby, Jeremiah, and Caleb | Mathew Krogen |
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| Harriet and Danika Bracken | Michael, Zachary, and Joshua | Ellin, Adam, and Andrew Lindee |
| Lorna Bradbury | Grosz | Barbara Linrud |
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| Ivy Brye | Sue and Jordan Hamilton | Luethy |
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| Karen K. Daly | Kari Hedman | Thomas Marple |
| Joyce A. Dammen | Kathy, Austin, and Lucas | Cheryl Marshall |
| Harriet Deplazes | Hendrickson | Becky McCleary |
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| Kelsey Dunnell | Kathy Holte | Jolene Miller |
| Lisa, Michael, and Allyson Durkin | Joseph Holzer | Terri Miller |
| Joan Dybdahl | Hope Family | Janice Mills |
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| Gerry Eichele | Verna M. Jackson | Diane and Mason Moran |
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| Caleb, Noah, and Ava Ericson | Erv Johnson | Eileen Morris |

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 Mel Reieron
 Thomas Reiffenberger

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 Laura Schumacker
 Clayton Schumaker
 Doug Schumaker
 Mark Schumaker
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 Peg Seidel
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 Joanne Slanger
 Deb Sletten

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