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For more information on the North Dakota Home Garden Variety Trials Program, go to www.ag.ndsu.edu/homegardenvarietytrials/

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## North Dakota Home Garden Variety Trials

## **RESULTS FOR 2018**

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## Introduction

## The First Step to Success

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

Gardeners who sow **superior** varieties can grow plants that yield abundantly, resist diseases, and produce quality food.
Gardeners who sow **inferior** varieties are headed for frustrations. No matter how hard they work in the garden 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. This indicates there are approximately 100,000 households in North Dakota with vegetable gardens.

There are significant economic benefits to gardening. A recent survey of community gardeners in Bismarck showed each household saved an average of \$105 on produce expenses per year.<sup>2</sup> Extrapolated statewide, these findings suggest that gardeners in North Dakota save millions of dollars each year by growing some of their own vegetables.

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 including cardiovascular disease, diabetes and some cancers. Nevertheless, only 25% of adults

and 8% of children in North Dakota eat enough vegetables for a healthy diet.<sup>3</sup>

We need to eat more vegetables—growing a productive garden can help with this.

**Gardeners in** 

**North Dakota** 

enjoy healthier

diets and save

dollars on food

millions of

expenses.

Compared to other crops, relatively little vegetable research is conducted at research stations in North Dakota. These plots provide some insight into the characteristics of varieties, but they do not test varieties under actual home 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: relatively fertile and undisturbed. Soils in a backyard garden are intensively managed and have been highly disturbed from home construction and land grading activities.
- Trials at stations utilize tractors, largescale irrigation equipment and herbicides. Backyard gardeners use shovels, hoes (maybe a roto-tiller), garden hoses and watering cans.
- Trials conducted at 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 **gardeners**, it makes sense to determine which varieties perform best in **gardens** under the management of **gardeners**.

#### Goals

This program has three major goals:

 Gardeners will be introduced to new varieties. This will lead to more productive gardens and healthier diets.

<sup>&</sup>lt;sup>1</sup> National Gardening Association. 2008. Personal communication with Bruce Butterfield, Market Research Director.

<sup>&</sup>lt;sup>2</sup> North Dakota State University Extension Service. 2016. Personal communication with Kelsey Sheldon, Burleigh County Program Assistant.

<sup>&</sup>lt;sup>3</sup> Centers for Disease Control. 2012. North Dakota: State Nutrition, Physical Activity, and Obesity Profile.

- Gardeners will identify superior varieties of vegetables, herbs and flowers.
- 3. Youth will develop skills in science, eat a healthier diet, and enjoy increased levels of physical activity.

## **Selecting Varieties**

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.

## **Preparation of Seed Packets**

Seeds are ordered in bulk from seed companies. Seeds are subsequently packed into coin envelopes. Labels containing instructions (variety name, vegetable/herb/flower type, time to plant, and recommended spacing for sowing and thinning) are affixed onto packages. Most seeds are untreated; exceptions being sweet corn and a few cucurbit varieties. No genetically modified organism (GMO) varieties are used.

## **Distribution of Seeds**

This program is promoted by North Dakota State University (NDSU) Extension faculty and staff across the state. Information is available at the website www.ag.ndsu.edu/homegardenvarietytrials/. Interested households can participate in up to seven trials. The fees are \$1 per trial. A fee of \$4.00 is charged for handling and postage.

Each gardener signs a pledge before receiving seeds, promising to grow and evaluate the varieties fairly.

Besides seeds, growers 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, but container gardening is allowed.

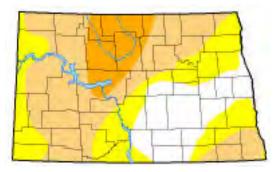
Gardeners are responsible for managing their crops. This includes fertilizing, watering, mulching, and using pesticides. They are encouraged to use their own practices so the varieties are tested under actual home garden conditions.

### Weather in 2018

After suffering through severe drought in 2017, dry conditions persisted through much of the state in 2018. Conditions were worse in the northern and western regions of the state. The dry conditions in spring (Fig. 2) led to poor establishment of many crops in gardens. Stands of carrots, which take a long time to germinate, were particularly damaged.

Rains in summer were slightly above normal. This is always welcome since our state is semi-arid in normal years. Temperatures were slightly warmer than normal in summer before cooling off dramatically in fall. A killing frost swept across our state on September 28. This was a few days earlier than normal for much of the state.

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



June 5, 2018

- Abnormally dry (crop growth slowed): 81%.
- Moderate drought (crop damage): 53%.
- Severe drought (crop losses likely): 11%.
- Extreme drought (major losses): 0%.
- Exceptional drought (widespread losses): 0%.

Fig. 1. Much of the state suffered through a drought in early summer. Drought severity and the percentage of area affected for each category are shown. Source: Drought Monitor.

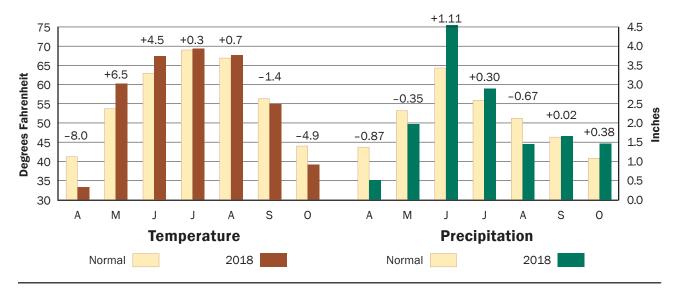


Fig. 2. Monthly air temperatures and precipitation amounts in 2018 and normal (1901–2000). Following a year of severe drought, Spring 2018 was cool and dry, sometimes leading to poor germination of crops in gardens. Crops enjoyed decent rains and warm weather through the summer. Temperatures were cool in fall and most communities suffered a killing frost a few days earlier than normal. Source: National Oceanic and Atmospheric Administration.

## Quantity and Quality of Participation

In 2018, gardeners at 243 sites submitted results from their trials. Results from over 1,201 research trials were submitted. Data were obtained in 43 of the state's 53 counties (Fig. 3). Our trials extended into Manitoba for the first time ever.

A pleasant finding of this program is the quality of research conducted by home gardeners. These families demonstrate extraordinary enthusiasm in this project. They carefully fill out report forms and provide insightful comments. We especially appreciate their comments on food quality. Consumer taste preferences are rarely studied in variety trials conducted at research stations.

## 8 4 13 8 8 30 5 26 8 8 Manitoba - 2 Key Minnesota - 20 Montana - 2 South Dakota - 3 8+ sites 4 to 7 sites 1 to 3 sites

Fig. 3. Gardeners at 243 sites submitted results in 2018. Site numbers are shown above for each county with 4 or more sites.

## **Compiling Data**

Gardeners compare the two varieties in each trial for germination rate, plant health, earliness, yield and quality of harvested product. We ask them which of the two varieties they prefer and which, if any, of the varieties they would recommend to other gardeners (Appendix 2). Comments are strongly encouraged.

Approximately 25% of reports this year were eliminated from our analysis and report. In most cases, these reports documented total crop failures of both varieties due to drought or hail. There were a few instances of extensive damage caused by wildlife (deer and rabbits) and a few reports with inconsistent data that were eliminated.

## **Presentation of Results**

Ratings, recommendations and comments of each gardener are presented in this publication (Fig. 4). Reports are categorized by the **varietal preferences** of the gardeners. For each trial, we start with the reports of gardeners who preferred "Variety A" and then later present the reports of gardeners who preferred "Variety B."

These reports are separated by **region** going from east to west (Fig. 5). We start with Minnesota, go to northeast North Dakota, across the central regions of the state to southwest North Dakota, and then include reports from Manitoba, South Dakota and Montana. Regions were identified by considering landforms, soil types, length of growing season and rainfall patterns.

Then we provide the individual **ratings** of each variety. Gardeners rated each variety on a scale of 1 to 10. These ratings are shown using a 5-star format. Each rating point equals a half star; thus a rating of "8" by the gardener would show as "4 stars."

We document whether the gardener **recommends** the variety. A positive recommendation is shown by a smiling face and a negative recommendation is shown by a frowning face.

We tried to include as many ratings and comments as possible. In some cases, we deleted a few of the least informative reports when space on a page was limited. Reports where both varieties failed due to drought, hail or wildlife damage were not presented.

## **Sharing the Final Results**

Participating gardeners are emailed the final report in December. Results are presented online and at workshops to over 1,000 gardeners every spring. Newspaper and online columns are written to report findings.

Reports of previous years are available online at www.ag.ndsu.edu/homegardenvarietytrials/.

Gardeners are introduced to new varieties. They enjoy more productive gardens and healthier diets.

## **Impacts**

Evaluations of our project show that gardeners are introduced to new varieties and enjoy more productive gardens and healthier diets. Youth in the project sharpen their skills in science. Youth enjoy healthier diets and increased levels of physical activity. A recent Impact Report is presented in the Appendix.



Fig. 4. Example of a report from an individual gardener.

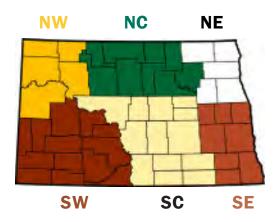


Fig. 5. Regional breakdown used in this report.

## **Summary of Results**

A team of volunteers in North Dakota and surrounding states/provinces evaluated promising vegetable and cut flower varieties. In a year marked by dry conditions in spring, gardeners at 243 sites rated varieties for health, earliness, yield and food/ornamental quality. A total of 1,201 side-by-side comparisons were submitted.

In each trial they noted which of the two varieties they preferred (Pref) and which of the varieties they

Bean, Dark Green Snap

would recommend (Rec) to other gardeners. They rated the performance of each variety using a scale of 1 to 10, with 1 = poor and 10 = excellent. The mean rating is presented in this summary.

The following is a summary of data, including our conclusions for each trial. Additional data and comments from gardeners are in the full report available at http://www.ag.ndsu.edu/homegardenvarietytrials/.



# 'Jade II' pods were dark green, straight and flavorful. Its plants were more vigorous under the dry conditions, leading to a longer harvest period. 'Hickok' germinated well and produced good yields early in the season.

Variety	(%)	(%)	Rating
Hickok	29	60	6.93
Jade II	71	60	7.47
		(1	7 sites)

Pref Rec



## **Bean, Green Snap**

New 'Greenfield' rated slightly higher than 'Bush Blue	Lake
274' for all traits. It grew better, was ready to harvest	earlier,
produced higher yields and tasted better for more gard	leners.
Its pods were thinner, longer, less seedy and bright gre	en.

Variety	Pref	Rec	Rating
B. Blue Lake 274 Greenfield	48 52	52 67	6.55 7.44
		(	28 citec)



## Bean, Green Filet

Both performed well but 'Crockett' was exceptional. Gardeners loved its dark green, smooth, straight and slender pods. Vines of both varieties were healthy and productive. 'Calima' produced earlier and its pods were lighter green.

Variety	Pref	Rec	Rating	
Calima	30	70	7.54	
Crockett	70	85	8.43	
		(50 sites)		



### **Bean, Green Pole**

New 'Seychelles' was ready to harvest much earlier. The vines of 'Stringless Blue Blake S-7' were more vigorous, and its yields were higher and more consistent across sites. Gardeners enjoyed the pod quality of both varieties.

Variety	Pref	Rec	Rating
Seychelles	70		7.00
S. Blue Lake S-7	30	45	6.73
		(1	18 sites)



### **Bean, Vegetable Soybean**

'Tohya' was superior. It matured earlier and produced higher yields. Every gardener in the trial recommended it. 'Midori Giant' matched 'Tohya' for the appearance and taste of its pods but showed no clear advantage.

Variety	Pref	Rec	Rating
Midori Giant	25	50	5.50
Tohya	75	100	8.25
			(7 sites)



## **Bean, Yellow Filet**

Borsalino' was preferred. Gardeners were impressed by its outstanding germination, earlier maturity, and straight, bright yellow pods. Both varieties were healthy and produced good yields. Gardeners were split on their taste preferences.

Borsalino	Pref	Rec	Rating
Borsalino	60	69	7.88
Soleil	40	69	7.56
		(·	1 Q citoo)

(18 sites)

	Beet, Gold	Variety	Pref (%)	Rec (%)	Rating
	'Boldor' showed better germination, but that was it. 'Golden Detroit' was ready to harvest earlier and produced higher	Boldor Golden Detroit	44 56	67 89	7.44 8.00
	yields. Gardeners liked the looks of its bright golden roots. Both varieties were healthy and delicious.			(1	6 sites)
(Carren	Beet, Red	Variety	Pref	Rec	Rating
	'Boro' and 'Merlin' were very similar. Gardeners liked the smoothness of 'Boro' and the deep red color of 'Merlin. The most noticeable difference was in flavor. 'Merlin' was	Boro Merlin	41 59	59 68	7.18 7.55 27 sites)
	more delicious and that made all the difference.			(2	27 SILES)
	Beet, Red Canning	Variety	Pref	Rec	Rating
	'Cylindra' germinated better under the dry conditions, and this led to higher yields. 'Cylindra' showed an edge in	Cylindra Taunus	68 32	87 61	7.96 7.13
	earliness. There were no clear distinctions between the varieties in the appearance and taste of their roots.	Taunus	<u>JZ</u>		29 sites)
<b>314</b>	Carrot, Early	Variety	Pref	Rec	Rating
	Both varieties struggled to germinate in the dry soil. 'Napoli' showed greater vigor. It germinated better, grew faster and produced higher yields. 'Yaya' showed an edge in taste, and gardeners enjoyed its sweetness both raw and cooked.	Napoli Yaya	52 48	79 64	7.45 7.00
101				(4	48 sites)
	Carrot, Main Season	Variety	Pref	Rec	Rating
	'Goldfinger' germinated much better and produced much higher yields. Gardeners enjoyed its long, smooth, cylindrical roots. Gardeners preferred 'Goldfinger' when carrots were eaten raw and preferred 'Rodelika' when cooked.	Goldfinger Rodelika	63 37	77 43	7.43 6.30
					57 sites)
	Carrot, Yellow	Variety	Pref	Rec	Rating
	'Yellowbunch' roots were brighter and slimmer. More gardeners who ate raw carrots preferred 'Yellowbunch'.	Yellowbunch Yellowstone	57 43	63 63	7.25 7.00
	Neither variety was especially flavorful. 'Yellowstone' roots were large, some exceeding 2 inches in diameter.			(1	10 sites)
WALL OF THE PARTY.	Corn, Bicolor Early	Variety	Pref	Rec	Rating
	Half of the gardeners preferred 'Sweetness'. It ripened quicker and tasted a little sweeter. The other half preferred	Sweetness Temptation	50 50	77 73	7.81 7.59
	'Temptation'. Its stalks showed good vigor. Gardeners enjoyed both varieties and no weaknesses were identified.			(2	22 sites)
100	Corn, Bicolor Super Sweet	Variety	Pref	Rec	Rating
	Most gardeners preferred 'American Dream'. It ripened earlier and produced very attractive ears. Its stalks tolerated high winds better 'ACes' showed good videor and good videor.	ACes American Dream	35 n 65	71 81	7.43 7.62
	high winds better. 'ACes' showed good vigor and good yields. Gardeners enjoyed the taste of both varieties.			(2	23 sites)

Transfer	Corn, Yellow Super Sweet	Variety	Pref (%)	Rec (%)	Rating
	'SS3778R' is known for its seedling vigor and it germinated well in our trials. Its stalks grew vigorously and produced delicious corn. 'Vision MXR' has done well in the past, but several gardeners noted 0% germination this year.	SS3778R Vision MXR	75 25	75 0	7.25 2.00 (4 sites)
	Corn, Ornamental	Variety	Pref	Rec	Rating
	'Fiesta' matured much earlier, produced higher yields and its ears were beautiful. Every gardener recommended it. 'Autumn Explosion' grew over 10 feet tall. Many gardeners felt its ears were more attractive.	Autumn Expl'n Fiesta	40 60	40 100	4.80 7.60 (7 sites)
	Corn, Popcorn	Variety	Pref	Rec	Rating
	'Dakota Black' produced good yields and was ready to harvest weeks earlier. Its black kernels were stunning and delicious. The stalks of 'Robust 98114W' were truly robust.	Dakota Black Robust 98114W	77 23	80 40	8.14 7.14 16 sites)
	These stalks produced larger ears but not higher yields.	***	D. C	D	ъ.
	Cucumber, Burpless  Fruits of both varieties were long, thin-skinned, small-seeded and never bitter. Their vines were healthy and productive.  Many gardeners preferred 'Summer Dance' for its smooth-skinned and straight cukes. 'Summer Top' produced earlier.	Summer Dance Summer Top	60 40	88 71	8.22 7.76
				(,	57 sites)
	Cucumber, Pickling	Variety	Pref	Rec	Rating
	Gardeners liked the high yields and the extended harvest season of 'Homemade Pickles'. Its cukes were perfect for pickling: crisp, tasty, small-seeded and blocky. 'Alibi'	Alibi Home. Pickles	37 63	71 81	7.57 7.95 45 sites)
	germinated well and matured earlier at several sites.				
	Cucumber, Slicing	Variety	Pref	Rec	Rating
	Both varieties had healthy vines and produced an abundance of cucumbers. 'Talladega' produced the first cucumbers and	General Lee Talladega	48 52	64 77	7.64 7.59
	produced higher yields in more gardens. Their fruit qualities were similar, and gardeners enjoyed both.			(2	27 sites)
	Lettuce, Butterhead	Variety	Pref	Rec	Rating
	'Buttercrunch' germinated well, grew faster and resisted bolting better. Gardeners preferred its flavor and crunch.	Buttercrunch Mirlo	65 35	84 65	7.73 6.90
	'Mirlo' leaves were lighter green. It grew well but showed no advantage. Both varieties were healthy and productive.			(3	34 sites)
145	Lettuce, Leaf	Variety	Pref	Rec	Rating
	Bergam's Green' germinated better, was healthier and produced higher yields. It resisted bolting better. Its dark green, crumply leaves were attractive and tasty. 'Salad Bowl'	Bergam's Green Salad Bowl	77 23	85 23	7.54 3.85 17 sites)
At .	did not germinate well in this trial.			(1	. 1 311(3)

and EV	Lettuce, Leaf/Romaine	Variety	Pref (%)	Rec (%)	Rating
C	'Fusion' germinated well, grew quickly and produced good yields. It showed amazing resistance to bolting. Gardeners enjoyed the looks, crunch and flavor of its ruffled leaves. 'Concept' grew well but was not superior in any way.	Concept Fusion	24 76	59 86	6.92 8.46 42 sites)
	Melon, Ananas	Variety	Pref	Rec	Rating
A	Gardeners enjoyed the flavor of Ananas melons. Most preferred 'San Juan'. Its melons were larger, yet its yields were less consistent from site to site. 'Dove' was a more reliable producer and was recommended by more gardeners.	Dove San Juan	29 71	86 57	6.71 7.00 (7 sites)
N. S.	Melon, Early Cantaloupe	Variety	Pref	Rec	Rating
	'Goddess' melons were larger, more attractive and tasted better. 'Goddess' ripened earlier. 'Minnesota Midget' germinated well. Its vines were compact but produced many	Goddess Minn. Midget	63 37	68 47	6.74 6.53 25 sites)
	more melons. These melons were much smaller in size.				
	Melon, Main Season Cantaloupe	Variety	Pref	Rec	Rating
	Both varieties were healthy, productive and produced delicious fruits. 'Aphrodite' ripened earlier and produced larger melons. 'Athena' produced higher yields, and its melons tasted better to more gardeners.	Aphrodite Athena	57 43	71 57	7.86 7.57
		Terena			10 sites)
	Pea, Shell  'Lincoln' germinated better, matured earlier, and produced much higher yields over a longer season. Its pods were larger and easier to shell. Its peas tasted better. The semi-leafless	Variety	Pref	Rec	Rating
		Bountiful Ben Lincoln	15 85	37 94	5.37 8.29 42 sites)
7 A 70	vines of 'Bountiful Ben' vines were easy to harvest from.			(	12 31663)
1. 500	Pea, Snap	Variety	Pref	Rec	Rating
	'Sugar Ann' germinated better, was much healthier, produced earlier and produced higher yields. 'Sugar Ann' pods were sweeter, crisper and tasted better. The pods of	SL3123 Sugar Ann	20 80	37 79	5.30 7.44 59 sites)
1	'SL3123' were larger and less stringy.			(-	,, (100)
	Pumpkin, Small	Variety	Pref	Rec	Rating
A CONTRACTOR OF THE PARTY OF TH	'Neon' matured earlier and produced higher yields. Gardeners loved its precocious, bright orange color. Many gardeners recommended 'Early Abundance' but when asked	Early Abundance Neon	17 83	80 80	7.20 9.20 (7 sites)
	to make a choice, nearly all preferred 'Neon'.				
	Pumpkin, Medium	Variety	Pref	Rec	Rating
	'Early King' has now outperformed 'Howden' and 'Early Dakota Howden'. 'Early King' matured earlier and its pumpkins were bigger. Gardeners liked 'Early Dakota Howden' yields and the uniform size and shape of its fruits.	E. Dak. Howden Early King	45 55	73 82	7.20 7.20 15 sites)

	Pumpkin, Large	Variety	Pref (%)	Rec (%)	Rating
- MA	'Early Giant' pumpkins were bigger, matured earlier and were more attractive. Both varieties produced good yields. Some gardeners liked the barrel shape of 'Early Giant'	Early Giant Gold Medal	79 21	88 75	7.93 6.21 19 sites)
6/11	pumpkins; others preferred the globular 'Gold Medal' fruits.			(.	19 Sites)
	Pumpkin, Ornamental Orange	Variety	Pref	Rec	Rating
	Our data are limited, but most gardeners preferred 'Jack Be Little'. Its fruits were a little larger and more attractive. The vines of both varieties were healthy. More extensive testing	Jack Be Little Jill Be Little	75 25	75 25	8.50 7.75 (5 sites)
	is needed.				(3 sites)
	Pumpkin, Ornamental Striped	Variety	Pref	Rec	Rating
	'Blaze' germinated better, matured earlier and produced larger pumpkins. Its fruits were bright, attractive and	Blaze Hooligan	75 25	100 75	9.25 7.50
uniform in size. Every gardener recommended it. 'Hooligan' grew well and matched the yields of 'Blaze'.					(4 sites)
	Pumpkin, Ornamental White	Variety	Pref	Rec	Rating
	Gardeners liked the bright white skin and uniform size of 'Casperita'. Its fruits were bigger, matured earlier and looked	Casperita Gooligan	80 20	80 60	8.40 7.20
V	more attractive. Its vines were more vigorous, healthier and productive. 'Gooligan' was recommended by most growers.				(5 sites)
	Spinach, Smooth Leaf	Variety	Pref	Rec	Rating
	Both varieties performed well but 'Space' was preferred. 'Space' resisted bolting longer, grew quickly and produced	Seaside Space	39 61	64 71	7.14 7.93
	higher yields. It germinated better than 'Seaside'. There was no clear preference in the taste of the varieties.	орин			39 sites)
<b>1</b>	Squash, Straightneck	Variety	Pref	Rec	Rating
$\langle V \rangle$	The varieties were similar, and both produced an amazing amount of squash. In 2017, more gardeners preferred the fruit quality of 'Fortune', but gardeners this year gave the	Fortune Multipik	50 50	100 100	8.50 9.00
	edge in fruit quality to 'Multipik'. Data are limited.				(2 sites)
	Squash, Dark Green Zucchini	Variety	Pref	Rec	Rating
7 -	'Desert' produced higher yields and produced the first fruits at many gardens. More gardeners liked the looks of 'Raven'	Desert Raven	58 42	91 73	8.45 8.00
	but preferred the taste of 'Desert'. Gardeners were overwhelmed with the productivity of both varieties.			(1	13 sites)
	Squash, Green Zucchini	Variety	Pref	Rec	Rating
	'Spineless Beauty' vines were healthier, produced earlier and produced more zucchinis. Its skin was beautiful. Gardeners enjoyed the taste of both varieties but did not show a	Cashflow Spineless Beauty	33 67	50 100	7.00 8.17 (8 sites)
	preference.				

	Squash, Winter Acorn	Variety	Pref (%)	Rec (%)	Rating
11/1	Black Bellota' was the top variety in this trial, but gardeners did not express much enthusiasm for it or for 'Table Ace'. Black Bellota' vines grew well and produced satisfactory yields.	Black Bellota Table Ace	67 33	60	7.00 6.60 (6 sites)
	Squash, Winter Buttercup/Kabocha	Variety	Pref	Rec	Rating
	Gardeners were impressed with both varieties. Both varieties were healthy and productive. Slightly more gardeners recommended 'Bonbon'. There was no clear preference when assessing the appearance and taste of fruits.	Bonbon Sweet Mama	50 50	86 75	8.00 7.50 40 sites)
1	Squash, Winter Butternut	Variety	Pref	Rec	Rating
	'Early Butternut' germinated better and had healthier plants. It yielded earlier and produced larger fruits. Gardeners were pleased with its yields. 'Pilgrim' was recommended by most gardeners, but the variety was not superior for any trait.	Early Butternut Pilgrim	79 21	85 62	8.29 7.29 17 sites)
	Squash, Winter Orange Kabocha	Variety	Pref	Rec	Rating
	'Sunshine' germinated better, grew better and produced higher yields. Its fruits were bright scarlet and attractive; its	Mooregold Sunshine	14 86	14 71	5.71 7.43
	flesh was flavorful. 'Sunshine' was earlier. 'Mooregold' fruits did not fully ripen at many sites and few gardeners liked it.			(1	10 sites)
	Watermelon, Red	Variety	Pref	Rec	Rating
	Gardeners enjoyed both varieties and were split on their preferences. More gardeners reported 'Sangria' ripened earlier and produced higher yields. More gardeners felt 'Sweet Dakota Rose' was sweeter and tasted better.	Sangria Sweet Dak. Rose	52 48	71 75	7.17 7.58 30 sites)
	Watermelon, Yellow	Variety	Pref	Rec	Rating
Y	'Yellow Doll' melons tasted much sweeter, and its vines were more productive at more sites. Every gardener recommended it. 'Early Moonbeam' ripened earlier and has	Early Moonbeam Yellow Doll	30 70	50 100	6.60 8.50 15 sites)
111	been a reliable variety in our trials for years.			(1	15 sites)
	Cosmos, Pink	Variety	Pref	Rec	Rating
3	Both varieties grew well, and their flowers were lovely. No clear differences were detected. 'Apollo Pink' produced more blooms at more sites. 'Sonata Pink' had an edge in	Apollo Pink Sonata Pink	45 55	75 75	7.33 7.58
The second	vigor. Most gardeners preferred 'Sonata Pink'.			()	12 sites)
	Cosmos, Striped	Variety	Pref	Rec	Rating
	Gardeners liked both varieties. Their plants were healthy and bushy. Their blooms were beautiful in the garden. Most gardeners preferred 'Picotee'. They liked the vibrancy of its	Candystripe Picotee	42 58	63 71	6.74 6.39 30 sites)
- W. W.	blooms. 'Candystripe' showed an edge in earliness and vigor.			(-	, o sites)

	Cosmos, White	Variety	Pref (%)	Rec (%)	Rating
	Gardeners gave both varieties high scores. 'Double Click White' flowers were predominantly double and stood out more. It bloomed earlier. 'Psyche White' grew vigorously and bloomed prolifically.	Double Click W. Psyche White	70 30	100 80	9.00 8.30 14 sites)
M	Sunflower, Bicolor	Variety	Pref	Rec	Rating
	'Helios Flame' bloomed quickly, and its fiery colors made a bold statement in gardens. Its stalks were healthy and grew vigorously. 'Ring of Fire' had a more compact plant, and yet it produced more flowers.	Helios Flame Ring of Fire	64 36	70 50	7.70 6.70 14 sites)
The state of	Sunflower, Double Petal	Variety	Pref	Rec	Rating
6	Gardeners enjoyed these fluffy sunflowers. Every gardener recommended both varieties and they were split on their preferences. 'Goldy Double' germinated especially well, but no clear distinctions were detected between the varieties.	Golden Cheer Goldy Double	50 50	100 100	8.00 8.00 (5 sites)
BA CTU	Sunflower, Dwarf	Variety	Pref	Rec	Rating
	'Orange Hobbit' was healthier and bloomed earlier. Its branches were filled with flowers, adding lots of color to the garden. It excelled as a cut flower. 'Big Smile' had a more	Big Smile Orange Hobbit	42 58	42 67	5.92 7.25
N/T	compact plant and larger, more classic sunflowers.			(1	16 sites)
	Sunflower, Red	Variety	Pref	Rec	Rating
	'Moulin Rouge' outperformed 'Red Hedge' in all traits. Its burgundy flowers were stunning and served as a beautiful background for other flowers. 'Moulin Rouge' bloomed	Moulin Rouge Red Hedge	88 13	100 63	8.75 7.00 10 sites)
	prolifically, had sturdy stems and was a good cut flower.				
	Sunflower, Strawberry	Variety	Pref	Rec	Rating
	'Strawberry Blonde' stalks were sturdy, bloomed earlier and were filled with flowers. Its blooms were enchanting and	Gypsy Charmer Strawb. Blonde	18 82	47 88	5.82 7.59
Sall Control	lasted long as cut flowers. 'Gypsy Charmer' had deeper shades of red, but this variety was less vigorous.			(2	21 sites)
W. Carrier	Sunflower, Tall	Variety	Pref	Rec	Rating
0	Gardeners liked both varieties. Their stalks grew about 10 feet tall and were attractive in the garden. 'American Giant'	American Giant Titan	50 50	86 86	8.17 7.83
	stalks were sturdy, and their flowers produced lots of seeds. More gardeners felt 'Titan' seeds were of higher quality.			(1	11 sites)
	Zinnia, Orange	Variety	Pref	Rec	Rating
	Both varieties were highly rated. Their flowers were large and set upon tall, sturdy stems. 'Orange King' was preferred by more gardeners, but neither variety showed any	Giant Dahlia O. Orange King	45 55	91 91 (2	7.91 8.48 23 sites)
	superiority on a consistent basis across sites.			`	,



Zinnia, Purple	Variety		Rec (%)	Rating
The flowers of 'Giant Dahlia Violet' were more numerous,	Giant Dahlia V.	71	86	8.51
brighter, more vibrant and more consistent in color. This	Purple Prince	29	66	7.66
variety was prettier in the garden and was a superior cut			(3	37 sites)
flower. 'Purple Prince' bloomed earlier at several sites.				,



Zinnia, White	Variety	Pref	Rec	Rating
'Giant Dahlia White' germinated better and produced more	Giant Dahlia W.	70	70	7.80
flowers. Gardeners liked its healthy plants and the fullness	Polar Bear	30	70	7.30
of its flowers. 'Polar Bear' performed well and was			(´.	11 sites)
recommended by an equal number of gardeners.			·	ŕ

## Bean, Dark Green Snap

## **Varieties**

#### 'Hickok'

60 days. Deep green, stringless pods with a sweet, mellow flavor. Compact, productive plants.

#### 'Jade II'

60 days. Vigorous plants produce an abundance of dark green, flavorful pods all summer long.

#### **Data**

Gardeners at 17 sites submitted information.

Trait	Hickok	Jade II	Same
Germinated best	47%	24%	29%
Healthier plants	36	36	29
Harvested earlier	57	29	14
Higher yields	20	40	40
More attractive pod	s 21	43	36
Tasted better	7	21	71
Preference	29	71	
Recommend (©)	60	60	
Mean score <sup>1</sup>	6.93	7.47	
Median score <sup>1</sup>	7.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## Prefer 'Hickok'

Hickok	食食食食食	$\odot$	
Jade II	<b>គំន</b> ់ជាជាជា		SE

'Hickok' had much better germination. Its yields were long lasting and consistent.

'Hickok' seeds came up first. Its pods were bright green, straight, long and smooth, almost waxy. 'Hickok' produced the first yield, but 'Jade II' produced more. I thought 'Jade II' would never stop producing. Both varieties had good flavor and made me happy.



Hickok		$\odot$	
Jade II	<b>គំគំ</b> រប់ជា		NC
'Hickok' had th	e best stand of	beans	s in the

'Hickok' had the best stand of beans in the garden. Hands down, the best producer in the garden!

Hickok		****	$\odot$	
Jade II		食食食食物		NW
D .1		1 1		

Both varieties tasted good.

### Prefer 'Jade II'

Hickok	<b>含含含含</b> 含	$\odot$	
Jade II	食食食食物	$\odot$	SE

We liked the high yields of 'Jade II'.

Hickok	食食食食食		
Jade II	****	$\odot$	SE

I liked the taste of 'Jade II'. They are good for steamed green beans.

Hickok	<b>食食食食</b> 給	$\odot$	
Jade II	南南南南北	$\odot$	SE

Both varieties were really good. 'Hickok' had higher yields early in the season, but 'Jade II' had a great late flush. I love the long, straight pods of 'Jade II'.

'Hickok' had poor germination (35% compared to 55% for 'Jade II') and its plants broke off at ground level.

'Hickok'
germinated
well and
produced good
yields early in
the season.

## Best green bush bean varieties

Top choice Jade II

## Strong performers

Bush Blue
Lake 274
Derby
Espada
Greenfield
Inspiration
Pike
Provider
Strike

## Prefer 'Jade II' (continued)

'Jade II' had better beans in general.

'Hickok' produced first, but 'Jade II' produced higher yields and long-lasting production. Pods were slender with a nice color.

'Jade II' had a fuller, more bushy plant. We canned 'Hickok' first, but 'Jade II' produced more later in the canning season. 'Hickok' pods were dark green and smoother, but 'Jade II' pods had a more pleasant taste. I like 'Kentucky Blue' best.

'Jade II' was an earlier producer (although not by much).

I think weather was a factor, but I didn't harvest as much as I thought I would.

Overall 'Jade II' gave me more beans.

No comments.

## **No Preference**

Poor germination, lots of downy mildew, low yields. I would not recommend either of these varieties.

## **Conclusions**

Gardeners preferred 'Jade II'. They liked the quality of its pods: dark green, slender, straight and flavorful. 'Jade II' plants were more vigorous under the dry conditions, leading to a longer harvest period. The germination of 'Hickok' was most impressive, and it produced good yields early in the season.

The pods of 'Jade II' were dark green, straight and flavorful. Its vines produced good yields all summer.

## **Key to Site Reports**

(reports are presented from east to west)

Recommendation to
other gardeners
(1 to 10) (yes or no)

Variety A
Variety B

NC Comments

Variety A' germinated better and produced

'Variety A' germinated better and produced the first harvest. We loved its taste. 'Variety B' produced higher yields but was tasteless. NW NC NE

SW SC SE

MN = Minnesota

NE = Northeast SE = Southeast

NC = North Central

SC = South Central

NW = Northwest

SW = Southwest MB = Manitoba

SD = South Dakota

MT = Montana

## Bean, Green Snap

## **Varieties**

#### 'Bush Blue Lake 274'

56 days. The standard for yield and quality. Dark green, stringless pods. Dependable.

#### 'Greenfield'

58 days. Award winner in 2018. Rich green, 7-inch pods. Its firm texture holds up well to blanching.

#### **Data**

Gardeners at 28 sites submitted information.

B.B. Lake			
Trait	274 G	Greenfield	Same
Germinated best	30%	44%	26%
Healthier plants	37	48	15
Harvested earlier	42	54	4
Higher yields	38	54	8
More attractive pods	32	52	16
Tasted better	24	44	32
Preference	48	52	
Recommend (©)	52	67	
Mean score <sup>1</sup>	6.55	7.44	
Median score <sup>1</sup>	7.00	7.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## Prefer 'Bush Blue Lake 274'

Bush Blue Lake 274 Greenfield

Yield of 'Bush Blue Lake 274' was very good. Its pods had a nice color. Both varieties tasted very good.

Bush Blue Lake 274 \*\*\*\*\*\*\*\* © NE Greenfield

I liked the stronger bean flavor of 'Bush Blue Lake 274' while my husband liked the milder and sweeter flavor of 'Greenfield'. 'Greenfield' beans were thinner and longer. It was hard to know when they were ready to pick. 'Greenfield' seeds were smaller. Its leaves turned brown (rust?) after August rain.



Bush Blue Lake 274 Greenfield

**★★★☆** ⊗ SE

'Bush Blue Lake 274' produced pods a little earlier. Its pods were bigger. Both varieties had fair/poor germination due to the dry spring.

Bush Blue Lake 274 Greenfield

SE

'Greenfield' tasted better, but its yield and growth were poor.

Bush Blue Lake 274 Greenfield

SE

Kids ate 'Bush Blue Lake 274' better.

Bush Blue Lake 274 Greenfield

SE

'Bush Blue Lake 274' germinated better. Its plants were bushier and larger. It produced earlier, but fewer beans (19.5 quarts compared to 29.5 quarts for 'Greenfield'). Its pods were easier to see when ready, slice and to can. 'Greenfield' pods were thinner. The flavors of the two varieties were the same.

Bush Blue Lake 274 Greenfield

NC © NC

I planted in a very shady area first and they did not do very well, but when I planted them again in a sunnier area both varieties did excellent. I liked them both. I planted them again in late July and they produced a great crop again.

'Bush Blue **Lake 274' is** the standard for quality and vield. Most gardeners in this trial recommended it.

## **Best green** bush bean varieties

Top choice Jade II

## Strong performers

Bush Blue Lake 274 Derby Espada Greenfield Inspiration Pike Provider Strike

## Prefer 'B. B. Lake 274' (continued)

Bush Blue Lake 274 Greenfield



'Bush Blue Lake 274' produced larger yields. 'Greenfield' germinated better.

Bush Blue Lake 274 Greenfield





'Bush Blue Lake 274' tasted better.

Bush Blue Lake 274 Greenfield





The plants of 'Bush Blue Lake 274' were covered in beans. Excellent yields!

Bush Blue Lake 274 Greenfield





'Bush Blue Lake 274' had higher yields and was better tasting. 'Bush Blue Lake 274' was ready to harvest a couple weeks earlier.

Then, as I was starting to think about taking out my garden I noticed that the 'Bush Blue Lake 274' was ready for a second (smaller) harvest. Both varieties were healthy.

Bush Blue Lake 274 Greenfield







'Bush Blue Lake 274' germinated a day or two earlier and more completely. Its plants were larger, fuller and produced an earlier harvest.

Bush Blue Lake 274 Greenfield





'Bush Blue Lake 274' germinated better and made a fuller stand of plants. Its pods tasted better.

#### Prefer 'Greenfield'

Bush Blue Lake 274 Greenfield



I loved the taste of 'Greenfield'. The pods always had a fresh taste to them and the color was a nice bright green. Because they stayed smaller and thinner, they seemed to taste good all the time. 'Bush Blue Lake 274' pods did not taste that good when they got bigger.

Bush Blue Lake 274 Greenfield



MN

'Greenfield' was a hands-down winner here. It was a high producer of thin, dark green, non-fibrous beans. Beans never went to seed or became too large to eat even when I was late picking them. 'Greenfield' is great for the busy gardener as they stay thin and tasty even when they should have been picked a day or two sooner. I had no luck this season with 'Bush Blue Lake 274'. Results I got were as if the seeds were a couple years old.

Poor germination, unhealthy plants and

beans that were "woody" (fiber) and lacking

Bush Blue Lake 274 Greenfield

flavor.







'Greenfield' was better for all traits. Germination for both varieties was slow due to the dry and hot weather after sowing.

Bush Blue Lake 274 Greenfield





'Greenfield' had better germination and much fuller plants. Its yield was at least 75% more. The pods were consistent in size and shape, but its flavor seemed bland compared to 'Bush Blue Lake 274.'

Bush Blue Lake 274 Greenfield





'Greenfield' germinated quicker. Only half the seeds of 'Bush Blue Lake 274' germinated. 'Greenfield' plants were a much better plant all around—more blossoms. 'Greenfield' produced a lot of pods-4 to 5 per stalk. The pods were long and thin with very good flavor. The pods of 'Bush Blue Lake 274' were meatier. I preferred 'Greenfield' for its slimmer beans with less seeds; although it did go to seed earlier. I liked that it rebloomed and produce a second crop in August while 'Bush Blue Lake 274' was spent and died out. I had not growth this type of bean before and would like to plant 'Greenfield' again. I had always planted 'Blue Lake' over the past 20 years.

The new variety 'Greenfield' grew better. was ready to harvest earlier and produced higher yields at most sites.

## Prefer 'Greenfield' (continued)

Bush Blue Lake 274 ★★★☆ ⊗
Greenfield ♥ SE

I've liked 'Bush Blue Lake 274' in the past, but now I prefer 'Greenfield' after seeing both varieties side by side. 'Greenfield' germinated better. Its plants were bigger and lush. Its pods were beautiful green; better by a long shot! They tasted better, probably because they were so pretty.

Bush Blue Lake 274
Greenfield

SE

We have planted 'Bush Blue Lake 274' for many years, but our experience with 'Greenfield' this year is definitely changing our habit going forward. We loved its long slender pod with less obvious bean seed. 'Greenfield' maintained its quality longer; for example, they are tender when young and a week later. It seems like they give you a buffer of extra time to get them picked!

Bush Blue Lake 274 Greenfield S NC

The stand of 'Bush Blue Lake 274' was bad. The plants all snapped off in the wind—even with protection.

Bush Blue Lake 274 Greenfield SC

'Greenfield' produced higher yields with a longer harvest season. 'Bush Blue Lake 274' looked like it would produce higher yields later, but never did. Bush Blue Lake 274
Greenfield

Greenfield

Greenfield

Greenfield

Greenfield

Greenfield

Greenfield

Greenfield

Greenfield

'Greenfield' produced nice beans. 'Bush Blue Lake 274' had healthy looking plants that flowered but never produced a bean.

Bush Blue Lake 274
Greenfield

SW

'Greenfield 'had slender, dark green, longer pods and three times the yield. Great taste. 'Bush Blue Lake 274' sort of dried up.

'Greenfield' plants were stronger and more upright. Its pods were nicer; they had stronger flavor but had a grassy aftertaste. 'Bush Blue Lake 274' pods were sweeter, but late in the season its pods got less meaty and were more like a shell for the seed which got larger and less flavorful.

liked the looks and flavor of 'Greenfield' pods. The pods were bright green, thin, long and less seedy.

**Gardeners** 

## **Conclusions**

The new variety 'Greenfield' was rated slightly higher than the standard variety 'Bush Blue Lake 274' for all traits. It grew better, was ready to harvest earlier, produced higher yields and tasted better for more gardeners. Its pods were thinner, longer, less seedy and bright green in color. Some gardeners who have grown 'Bush Blue Lake 274' for many years discovered a new variety they enjoy more.

## **Bean, Green Filet**

## **Varieties**

#### 'Calima'

55 days. Slender, dark green pods with excellent flavor. Early and productive.

#### 'Crockett'

60 days. Pods are slender and deep green. Yields are heavy and continuous. Proven performer in ND.

### **Data**

Gardeners at 50 sites submitted information.

Trait	Calima	Crockett	Same
Germinated best	13%	33%	<b>53</b> %
Healthier plants	16	20	64
Harvested earlier	48	25	27
Higher yields	40	36	24
More attractive pods	s 6	72	21
Tasted better	24	41	35
Preference	30	70	
Recommend (©)	70	85	
Mean score <sup>1</sup>	7.54	8.43	
Median score <sup>1</sup>	8.00	9.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### Prefer 'Calima'

Calima	****	$\odot$	
Crockett	南南南南沿	$\odot$	SE

'Calima' pods were very nice and straight, about 4 to 6 inches long. Both varieties produced a very good crop. I canned 40 pints. Both varieties tasted good.

Calima	<b>自由自由</b> 自	$\odot$	
Crockett	<b>含含含</b> 的合	$\odot$	SE

'Calima' produced very nice, long, tender pods, but must be picked early for highest quality. It had wonderful flavor. 'Crockett' stayed firm on the plant while remaining attractive for a longer period of time. Filet beans are great alternatives to more traditional bush beans. Their long length and small seeds also make them great for canning.



Crockett	****	$\odot$	SE
Both tasted very g	ood. I like th	e sleno	der,
greener bean of 'C	Crockett'; grea	it for	
roasting! I like 'Ca	lima' for regu	lar ste	aming
and pickling; they	are thicker. 'C	Calima	,
produced for a lor	nger period. T	hey st	till are
producing while 'C	Crockett' is do	one. I	will
continue to plant l	both as I like	the di	fferent
texture for differen	nt dishes. I en	ijoyed	the
experience of hav	ing two differ	ent ty	pes of
plants. I didn't nee	ed to plant as	many	as I
did; however, it all	owed me to s	hare v	vith

Calima	食物食物物	$\odot$	
Crockett	<b>南南南北</b> 沿	$\odot$	SE

others. Everyone said they liked both.

'Calima' had better taste.

Calima

Calima © NC

'Calima' did everything you could expect in a bean! It produced twice as much yield. Each plant was full of pods! Both varieties germinated at near 100%, grew well, had a good taste, and canned well.

Calima
Crockett

Crokett

Calima' had better flavor. Both varieties grew well and had great yields.

Calima 

★★★★ 

Crockett 

★★★★ 

SC

'Calima' had healthier plants, much higher yield and tasted better.

The yields of 'Calima' were early and abundant.

## Best green filet bean varieties

Top choice Crockett

## Strong performers

Calima Maxibel Serengeti

## Prefer 'Calima' (continued)

Calima ⊕ ⊕ ⊕ ⊕ ⊕ SW

'Calima' produced first and better yields. 'Crockett' was a good variety with slender, dark green pods, but was not as productive.

I was not impressed by either variety. I will plant 'Provider' next year.

'Calima' was a little slower to flower but produced higher yields. The pods of both varieties were very flavorful, but 'Calima' was milder and more tender. 'Crockett' had darker green plants and produced smooth, pretty, dark green pods.

Calima © SW

Both varieties produced impressive yields in spite of a hailstorm on June 29.

Calima © SW

I was very impressed with both varieties. 'Calima' pods were sweeter and more tasty. 'Crockett' pods were a nice, dark green and were consistently straighter. 'Crockett' plants were stronger and more upright.

'Calima' was much better all around. Its pods were large, long, very uniform and much better tasting. 'Crockett' pods were small and broke easily when picked. Both tasted good but 'Calima' produced three times more pods.

## **Prefer 'Crockett'**

The pods of both varieties were very good; they canned well and were really good fresh. The plants produced very well. 'Crockett' pods were a little better tasting.

Calima © NE

I liked the appearance of 'Crockett' pods and their plants tend to produce longer. The pods of both varieties were nice because they did not get stringy even when fairly large. Both varieties had healthy plants, but 'Calima' ended up laying over more after a wind and start to get diseased earlier in September. 'Calima' yielded earlier by only a few days.

I always plant 'Crockett' and it is my favorite. Its beans are more uniform in size; good for pickling.

Calima 

Crockett 

Crockett 

SE

'Crockett' pods looked better.

Calima © SE

'Crockett' pods didn't have big bean seeds inside.

'Crockett' produced a continuous crop the whole season. 'Calima' produced one crop and may be better for someone looking for a single harvest. 'Crockett' has small, dark green pods; 'Calima' has light green pods. Their pods may have looked different, but they cooked the same color.

'Crockett' had 100% germination and 'Calima' was just slightly less. The vines of 'Crockett' remained sturdy, green and vigorous even late in the season; whereas 'Calima' became somewhat leggy. 'Crockett' produced several days earlier and produced significantly more beans per plant. The pods were beautiful, dark green and straight. They were the best tasting beans ever—wonderful! 'Calima' pods were lighter green, not as straight, and average tasting.

The vines of both varieties were healthy and productive.

## Prefer 'Crockett' (continued)

Calima © SE

I liked 'Crocket' because the pods were very crisp and smooth. They didn't have the hair on them that I do not like. Both varieties produced very nice beans and kept producing for weeks.

Calima SE

'Crockett' produced such a beautiful green and slender bean. Yields were longer, and the pods were slower to get woody.

I liked the shiny, dark green color of 'Crockett'. It was more attractive, and I liked the texture of the bean.

Calima © SE

'Crockett' tasted much better. Its pods had beautiful, dark green color. 'Calima' outproduced 'Crockett' about 5:1.

'Crockett' produces the most beautiful deep, dark green beans. Nice and straight, very glossy. I love the color of these beans. So tender and delicious. I love its straightness when making dilly beans. Can't think of anything negative about 'Crockett'! I love it! The best bean variety ever! 'Calima' produced more, even though I still picked 'Crockett' well into September.

Calima © NC

Both varieties came up at the same time and had good germination. Plants were very healthy. 'Crockett' plants were more compact. Its beans were nice, dark green and straight with a very good, smooth taste. 'Calima' produced a week before 'Crockett' and had larger pods.

Calima © NC

I liked 'Crockett' for its darker color and slim length. Its pods didn't get as large as fast later in the harvest. Both varieties ended up having a good yield; however, we did have to water, as no rain fell in this area.

'Crockett' was great. Better taste and tender. I would grow it again—very good bean.

Calima
Crockett

Crockett

Crockett

Crockett' pods looked better. They had better color and were more consistent in size

and shape.

'Crockett' was fun to pick because of its long pods; some were over 10 inches long yet still delicious and not woody. The pods were dark, dark green and shiny. Martha Stewart could use them for table arrangements on her show. Tasted great. My neighbors loved them. Both varieties had long pods that didn't get tough and too mature for a long time.

Calima Crockett © NC

'Crockett' looked and tasted better.

'Crockett' definitely had a more attractive pod—nice, dark green and waxy appearance. They looked great cooked and in a refrigerator pickling recipe. They looked more appetizing. 'Calima' pods were much lighter in color. The plants of both varieties produced well and tasted fine.

I liked the color and smoothness of 'Crockett' pods.

The pods of 'Crockett' were glossy, dark green and straight—the ultimate in quality.

## Prefer 'Crockett' (continued)

Calima © SC

'Crockett' pods were darker green and smoother. I prefer beans without fuzz on them. Both varieties germinated well, showed good vigor, and were very healthy until August when leaves began to brown.

Calima © SC

'Crockett' produced more.

The pods of 'Crockett' were slimmer and greener, less cooking time, and its overall yield was much better. I liked its flavor just a little better too. 'Calima' produced higher yields in the first picking as they are a larger bean, but 'Crockett' produced more in subsequent pickings.

'Crockett' excelled in every way: taste, color, shape and yield. Its pods tasted much better and seemed to stay better longer on the vine. I cannot think of any bean variety that have liked better in my years of gardening.

Calima © NW

'Crockett' pods were long, slender and had beautiful color. They were really pretty and more attractive. As the pods matured, the taste and texture of 'Calima' was better. Both varieties had very good taste.

Calima © NW

'Crockett' had nice pods and great flavor. Both varieties are delicious.

I like that 'Crockett' pods have a deep green color and they stay slimmer. I like the way it matures; it doesn't get so big.

Calima © SW

I would recommend 'Crockett' to other growers because of the very high yields and beautiful pods. 'Calima' produced an adequate crop for my needs and tasted much better than 'Crockett'. Both varieties produced a nice second crop in September.

Calima © SW

Both varieties produced very well. They were picked regularly and had a long growing season. I preferred the shiny texture of 'Crockett' pods. Its pods were better eaten fresh; whereas, the pods of 'Calima' were better when cooked. 'Calima' plants were taller and would do better with a trellis. The plants growing over each other made them harder to pick.

Calima © SW

'Crockett' pods were very attractive, dark and shiny. The vines produced until frost.

'Crockett' had great color and good flavor. I will grow it again next year.

'Crockett' plants were bigger and fuller. The vines produced earlier and when they seemed to be done, the 'Calima' vines still were yielding. 'Crockett' pods were darker green.

### **Conclusions**

Both varieties performed well but 'Crockett' was truly exceptional. Gardeners loved its dark green, smooth, straight and slender pods—the ultimate in quality. It was the finest bean some of these gardeners have ever grown. The vines of both varieties were healthy and productive. 'Calima' produced earlier and its pods were lighter green in color.

Gardeners
raved over the
quality of
'Crockett'.
Some reported
it was the
finest bean
they have ever
grown.

## Bean, Green Pole

## **Varieties**

## 'Seychelles'

55 days. New award winner. Vigorous vines produce lots of flavorful, stringless pods. Early.

## **'Stringless Blue Lake S-7'**

60 days. Improved 'Blue Lake' type. Easy to pick, high yields and smooth, dark green pods.

#### **Data**

Gardeners at 18 sites submitted information.

	S. Blue Lake		
Trait	Seychelles	S-7	Same
Germinated best	21%	21%	<b>57</b> %
Healthier plants	17	17	67
Harvested earlier	80	20	0
Higher yields	30	50	20
More attractive poo	ds 36	18	45
Tasted better	18	9	73
Preference	70	30	
Recommend (©)	82	45	
Mean score <sup>1</sup>	7.00	6.73	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## Prefer 'Seychelles'

This was my first time trying pole beans—loved them. I'm never going back to bush beans. The harvest of 'Seychelles' was earlier; it had a distinct first wave and then a second wave. Its pods had a smooth texture, which I like. The pods were darker and smoother. The harvest of 'Stringless Blue Lake S-7' was more constant. The pods had a fuzzy texture, which my husband prefers. Germination for both varieties was excellent and their vines were healthy. The vines of 'Stringless Blue Lake S-7' had more foliage.



Seychelles
Stringl. Blue Lake S-7
Seychelles' produced better. The pods of both varieties tasted good. They had a thicker pod than those of bush beans.

Seychelles
Stringl. Blue Lake S-7
Seychelles' vines were easier to work with.
Stringless Blue Lake S-7' had killer vines as we called them. They stuck to everything! It was a pain to weed around and harvest. My dogs couldn't even walk by without getting full of leaves and vines.

Seychelles

Stringl. Blue Lake S-7

The pods of 'Seychelles' were good, dark green, long and didn't mature quickly.

Seychelles ©
Stringl. Blue Lake S-7 NC

'Stringless Blue Lake S-7' produced largeseeded pods due to our very dry summer. 'Seychelles' pods were more attractive and tastier.

Seychelles © Stringl. Blue Lake S-7 © SC 'Seychelles' germinated quicker.

Seychelles
Stringl. Blue Lake S-7
SC
Scarled lea' was a reason all access It

'Seychelles' was superior all season. It produced two harvests before 'Stringless Blue Lake S-7' produced its first harvest. Gardeners
were most
impressed
with the
earliness of
'Seychelles', a
new awardwinning
variety.

## Best green pole bean varieties

**Top choice** Fortex

## Strong performers

Kentucky Blue Monte Cristo Orient Wonder Seychelles Stringless Blue Lake S-7

## **Prefer 'Stringless Blue Lake S-7'**

Seychelles © NC

'Stringless Blue Lake S-7' vines had more vigor, more leaves and a heavy canopy. It produced 2 weeks longer and 40% more overall. Its pods were more eye appealing—darker and longer (6.5 inches compared to 5 inches for 'Seychelles'). Its pods had a very mild bean taste, which I prefer. 'Seychelles' was ready to harvest 1 week earlier.

Seychelles
Stringl. Blue Lake S-7

'Stringless Blue Lake S-7' germinated 3 days earlier. Its plants were healthier—looked attractive on poles—and produced about 20% more beans.

Seychelles
Stringl. Blue Lake S-7
Stringless Blue Lake S-7' produced higher yields.

## **No Preference**

Seychelles – – Stringl. Blue Lake S-7 – SE

About 30% of seeds for both varieties germinated. I harvested 'Seychelles' earlier. I preferred the length of 'Stringless Blue Lake S-7' pods; although its length was less consistent. I did not notice a significant difference in taste.

Seychelles
Stringl. Blue Lake S-7

The plants of both varieties died of rust

The plants of both varieties died of rust disease when 2 inches tall.

#### **Conclusions**

Most gardeners preferred 'Seychelles', an All-America Selections Winner. It was ready to harvest much earlier—always a bonus in our short growing season. The vines of 'Stringless Blue Blake S-7' were more vigorous, and its yields were higher and more consistent across sites. Gardeners enjoyed the pod quality of both varieties.

'Stringless
Blue Lake S-7'
grew
vigorously and
produced
higher yields.

#### **Key to Site Reports** (reports are presented from east to west) Recommendation to MN = Minnesota NW NC NE other gardeners NE = Northeast Ratings (ves or no) SE = Southeast (1 to 10)Location NC = North Central SC = South Central Variety A NW = Northwest Variety B NC Comments SW = Southwest 'Variety A' germinated better and produced MB = Manitoba the first harvest. We loved its taste. 'Variety SD = South Dakota B' produced higher yields but was tasteless. SW SC SE MT = Montana

## Bean, Vegetable Soybean

## **Varieties**

#### 'Midori Giant'

70 days. Reliable producer of large, sweet, and smooth-textured beans. Vigorous vines.

## 'Tohya'

55 days. Compact plants produce a concentrated set of pale green pods. Delicious, buttery flavor.

### **Data**

Gardeners at 7 sites submitted information.

Trait	Midori Giant	Tohya	Same
Germinated best Healthier plants Harvested earlier Higher yields More attractive pods Tasted better	0% 0 0 25 33 33	40% 25 100 50 33 33	60% 75 0 25 33 33
Preference Recommend (©) Mean score¹ Median score¹	25 50 5.50 5.50	75 100 8.25 8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## Prefer 'Midori Giant'

Midori Giant Tohya **含含含含**合 SE



## Prefer 'Tohya'

Midori Giant Tohya NE

'Tohya' plants were slightly more compact and seemed to have more 3-seeded pods, along with slightly fatter beans. Several plants got chewed back by something, and I reseeded in those areas.

Midori Giant Tohya SE 'Tohya' produced better in my garden.

Midori Giant NC

'Tohya' had great yields. Lots of pods per plant. I loved its taste! 'Midori Giant' did not germinate.

### **Conclusions**

Tohya

'Tohya' was superior. It matured earlier and produced higher yields than 'Midori Giant'. There were not many participants in this trial, but they all recommended 'Tohya'. Midori Giant' matched 'Tohya' for the appearance and taste of its pods but showed no clear advantage.

'Tohya' matured earlier and produced higher yields. **Every gardener** recommended it.

> **Best** vegetable soybean varieties

Top choice Tohya

Strong performer Envy

<sup>&#</sup>x27;Midori Giant' tasted better. Its plants were taller by 6 inches.

## **Bean, Yellow Filet**

## **Varieties**

#### 'Borsalino'

60 days. Good yields of straight, sunny yellow beans. Gourmet quality. Harvest at 4 inches.

#### 'Soleil'

54 days. A baby filet type known for its outstanding, buttery flavor. Pods are slender and bright yellow.

### Data

Gardeners at 18 sites submitted information.

Trait	Borsalino	Soleil	Same
Germinated best	53%	0%	47%
Healthier plants	21	14	64
Harvested earlier	43	29	29
Higher yields	20	33	47
More attractive poo	ds <b>43</b>	21	36
Tasted better	27	27	47
Preference	60	40	
Recommend (©)	69	69	
Mean score <sup>1</sup>	7.88	7.56	
Median score <sup>1</sup>	8.50	7.50	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### Prefer 'Borsalino'

Borsalino	****	$\odot$	
Soleil	<b>自由自</b> 能量	$\odot$	MN

Borsalino' germinated earlier and at a higher rate. It produced a little earlier. Both had excellent yields. I could not tell a difference in taste or appeal.

Borsalino	<b>未会会</b> 会	$\odot$	
Soleil	食食食品品	$\odot$	NE

Borsalino' had 100% germination. Its plants were fuller and taller. Pods matured 5 days earlier. Its pods were longer and uniform in shape; easier to cut for canning and freezing. 'Soleil' pods gave me a flavor burst when eaten; delicious and more flavorful. Both varieties were high producers.



Borsalino	食食食品品	
Soleil	<b>គំគំ</b> ជាជាជ	NE

Neither variety germinated very well, but the ones that did come up did well.

Borsalino	****	$\odot$	
Soleil	<b>自由自由</b> 自	$\odot$	SE

'Borsalino' is not hairy so easier to clean; sweet taste. 'Soleil' was hairy and harder to clean. I prefer the taste of 'Borsalino' because its sweeter. My husband liked 'Soleil' better because it has more flavor.

Borsalino' had nice yellow pods. 'Soleil' pods were green and yellow.

Borsalino © Soleil SC

Both germinated at near 100%, but 'Borsalino' germinated almost 10 days earlier. 'Borsalino' matured about a week earlier. Its pods were more uniform, more tender, and more flavorful. The plants of both varieties were beautiful, and they produced very good yields—it was a good year for beans!

Borsalino
Soleil
Soleil
SC

Both grew and produced very well for a long time until the rabbits mowed a few down. Their pods were easy to find and pick being yellow. Gardeners
were
impressed by
the
germination,
early maturity
and bright
yellow pods of
'Borsalino'.

Best yellow filet bean varieties

Top choice Borsalino

Strong performer Soleil

## Prefer 'Borsalino' (continued)

Borsalino 💮 Soleil 💮 SW

I recommend both varieties but would plant 'Borsalino' over the other. When left to mature, the beans on its plants stayed smaller and more tender.

Borsalino 🛣 😇 SW

'Borsalino' had 100% germination but I had to resow 'Soleil' 2 weeks later. 'Soleil' plants were smaller and slower to produce. 'Borsalino' produced first and more yield; not as well as green beans though.

## Prefer 'Soleil'

Borsalino Soleil

'Borsalino' plants were greener but 'Soleil' pods tasted better.

Borsalino Soleil SE

'Soleil' grew better, produced higher yields and tasted better. 'Borsalino' germinated about 75% better.

Borsalino 🙀 😂 Seleil SE

'Soleil' produced 20 quarts; 'Borsalino' produced 18.5 quarts.

Both were good varieties.

Borsalino 🔅 Soleil 🔅 NC

Neither variety germinated well. Hot weather and lack of rain reduced plant growth and yields. Pods were smaller and shorter than I like. 'Soleil' grew better, produced nice yellow beans and had higher yields.

Borsalino 💮 Soleil 💮 SW

'Soleil' had longer, straighter pods for snapping. 'Borsalino' had slightly higher yields.

## No Preference

Borsalino – © Soleil – © NC

No comments.

MN

Borsalino Soleil Soleil SOLEIN SOLEIN

Both varieties were excellent.

## **Conclusions**

Borsalino' was preferred by most gardeners. These gardeners were impressed by its outstanding germination, earlier maturity, and straight, bright yellow pods. Both varieties were healthy and produced good yields. Gardeners were split on their taste preferences.

Both varieties were healthy and produced good yields of delicious pods.

## Beet, Gold

## **Varieties**

#### 'Boldor'

55 days. Dark golden beets. Sunny vellow flesh keeps its color when cooked. Sweet flavor.

#### 'Golden Detroit'

55 days. Bright golden roots have a pyramidal shape. Plants grow vigorously. Delicious greens.

### **Data**

Gardeners at 16 sites submitted information.

Trait	Boldor	Golden Detroit	Same
Germinated best	<b>56</b> %	33%	11%
Healthier plants	22	11	67
Harvested earlier	22	56	22
Higher yields	33	56	11
More attractive root	s 11	67	22
Tasted better	33	22	44
Preference	44	56	
Recommend (©)	67	89	
Mean score <sup>1</sup>	7.44	8.00	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### Prefer 'Boldor'

Boldor	<b>自由自由</b> 自	$\odot$	
Golden Detroit	<b>自由自</b> 由自		MN

Taste was my biggest factor. Plant something you are going to eat! 'Boldor' tasted better in a taste test of raw roots, and the flavors of both varieties were comparable when cooked. 'Boldor' plants were a little more lush and green; its greens also tasted better. 'Boldor' roots were smaller in comparison to those of 'Golden Detroit'.

Boldor Golden Detroit SE 'Boldor' had better flavor and sweeter-

great taste! 'Golden Detroit' roots were over three times as big as those of 'Boldor', 'Boldor' roots were deeply incised so more difficult to clean.



Boldor Golden Detroit



SE

I was impressed with both varieties. Both had a great taste; very enjoyable. 'Boldor' had a better yield and its roots were more uniform in size.

Boldor Golden Detroit



NW

Both varieties had very strong plants; large leaves; tasty for salads. 'Golden Detroit' had nice rounded roots, but 'Boldor' had a much heartier, bolder beet taste and wonderful color. I really enjoyed both of these beets. Neighbors enjoyed them too and commented on never having had them before.

**Gardeners** enjoyed the taste of both varieties. 'Boldor' germinated **especially** well.

#### **Prefer 'Golden Detroit'**

variety.

Boldor Golden Detroit SE

'Golden Detroit' produced more beets.

Boldor SE Golden Detroit 'Golden Detroit' was an overall better

Boldor Golden Detroit SC

'Golden Detroit' had a higher yield (but not by much).

## Best gold beet varieties

Top choice Boldor

Strong performers Golden

Detroit Touchstone Gold

## **Prefer 'Golden Detroit'** (continued)

Boldor © SW

Its roots looked and tasted delicious. 'Boldor' roots were misshaped.

Boldor 🙀 🛱 😇 SW

'Golden Detroit' germinated and grew better. Its roots were more uniform in size. 'Boldor' roots were bigger, lighter in color and not as uniform. They both canned wonderfully!

### **Conclusions**

'Boldor' showed better germination than 'Golden Detroit', but that was it. 'Golden Detroit' was ready to harvest earlier and produced higher yields. Gardeners preferred the look of the bright golden roots of 'Golden Detroit'. Plants of both varieties were healthy, and gardeners enjoyed the taste of both varieties.

'Golden
Detroit'
matured
earlier and
produced
higher yields.
Its roots were
bright gold
and attractive.

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## **Beet, Red**

## **Varieties**

#### 'Boro'

50 days. Smooth, round roots develop quickly. Excellent flavor and healthy tops.

#### 'Merlin'

55 days. Exceptional eating quality. Its dark red roots are round and smooth. Deep green, glossy leaves.

#### **Data**

Gardeners at 27 sites submitted information.

Trait	Boro	Merlin	Same
Germinated best	35%	19%	46%
Healthier plants	21	21	58
Harvested earlier	32	32	36
Higher yields	27	32	41
More attractive roots	27	36	36
Tasted better	19	38	43
Preference	41	59	
Recommend (©)	59	68	
Mean score <sup>1</sup>	7.18	7.55	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'Boro'

Boro	***	$\odot$	
Merlin	<b>自由自</b> 定位	$\odot$	MN

My husband loves beets and he liked the taste of 'Boro'. I'll eat beets, but they are not my favorite, so I liked 'Merlin' because they were milder. Both varieties developed Cercospora leaf spot.

Boro	<b>FREE</b>	$\odot$	
Merlin	<b>南南南南</b> 翁		MN
'Boro' had a highe	r yield. It was	very	good
tasting.			

Boro	****	$\odot$	
Merlin	<b>未会会会</b> 在	$\odot$	NE

These varieties were very similar. 'Boro' germinated better.



Boro	素素素素的	$\odot$	
Merlin	<b>គំ</b> តំជាជាជា	$\odot$	NC
'Merlin' had	very poor germina	tion	and poor

growth. 'Boro' beets were tasty.

Boro	食食食品品	$\odot$	
Merlin	<b>常常和</b> 企业		NC

'Boro' grew better in my garden, which is shady.

Boro	含含含含含	(3)	
Merlin	***********		SC

I was disappointed in both varieties. Slow growth, weak plants. 'Boro' came up first.

Boro	***	$\odot$	
Merlin	食食食食物	$\odot$	SC

They were both very similar, but 'Boro' grew larger beets faster. Both varieties were very good fresh and pickled. We picked beets throughout the summer and very few of either were tough or lost their color.

Boro	****	$\odot$	
Merlin	<b>南南南南</b> 沿	$\odot$	NW

Boro' roots had deep rich color, nicer shape, smoother skin, and were nicer for roasting. I liked its greens better. Both varieties were great but 'Boro' had nicer features.

Boro © SW

'Boro' roots were round. 'Merlin' roots were skinny and elongated.

Gardeners liked the smooth, globular roots of 'Boro'.

## Best red beet varieties

Top choice Merlin

## Strong performers

Bull's Blood
Cylindra
Detroit Dark
Red
Early Wonder
Tall Top
Red Ace

## Prefer 'Merlin'

Boro 💮 Merlin 😊 MN

'Merlin' had uniform roots. Its roots were sweeter and kept better.

'Merlin' produced more greens to eat in the early season. Its beets grew bigger and were ready to harvest earlier. I don't like to cook a bunch of little beets. I like big beets and that is what 'Merlin' produced. 'Boro' roots were more pear-shaped—seems unusual.

'Merlin' roots had a better shape and were bigger in size.

These varieties were very similar. Their roots were good since they did not get too large and woody. 'Merlin' grew slightly quicker and its roots got slightly larger.

Boro thinin (a) NE

'Merlin' germinated better and was healthier but both varieties got Cercospora leaf spot disease. I did not get any yield.

Boro \*\*\* SE

'Merlin' produced better. I was not impressed with the germination of either variety.

Boro ##### © SE

The germination of 'Merlin' was much better. It produced nice roots all season until September. 'Boro' roots grew faster; I picked the first beet on July 6.

Boro 🙀 😊 NC

'Merlin' tastes so sweet—love to grill beets. 'Merlin' roots stay firm and are delicious. They have a nice, round shape. 'Boro' germinated more uniformly. Plants of both varieties were healthy.

Boro © NC

'Merlin' roots had a better taste. Neither variety became "woody" even after becoming huge.

Boro SC

'Merlin' roots stayed smaller and were perfectly round.

Boro SC SC

'Merlin' roots had better flavor. They were smaller in size when I did my fall harvest.

'Merlin' germinated the best and produced the most beets. These two varieties were very similar as far as the size and shape of the beets.

Boro 🙀 😇 SW

'Merlin' tasted better.

#### **Conclusions**

Boro' and 'Merlin' were very similar in their performance. Gardeners liked the smoothness of 'Boro' and the deep red color of 'Merlin. The most noticeable difference was in flavor. 'Merlin' was more delicious and that made all the difference.

The most noticeable difference between the varieties was in quality. 'Merlin' tasted better and that made all the difference.

## **Beet, Red Canning**

## **Varieties**

## 'Cylindra'

54 days. Straight and cylindrical, 5-inch-long roots can be cut into uniform slices.

#### 'Taunus'

65 days. Very uniform roots grow 6 inches long. Roots are deep red, sweet, and have little to no zoning.

### **Data**

Gardeners at 29 sites submitted information.

Trait	Cylindra	Taunus	Same
Germinated best	<b>52</b> %	8%	40%
Healthier plants	25	8	67
Harvested earlier	23	9	68
Higher yields	43	14	43
More attractive root	s 18	27	55
Tasted better	27	18	55
Preference	68	32	
Recommend (©)	87	61	
Mean score <sup>1</sup>	7.96	7.13	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## Prefer 'Cylindra'

Cylindra	<b>自由自由</b> 命	$\odot$	
Taunus	<b>គំគំគំ</b> ជំជំ		MN

'Cylindra' germinated better under the hot, dry conditions and had healthier plants. Deer pulled up all the beets when I was getting ready to process them.

Cylindra	食食食品品	$\odot$	
Taunus	食食食品品		MN

'Taunus' plants grew way above the soil, and the part above the soil got woody.

Cylindra	****	$\odot$	
Taunus	<b>គំគំគំ</b> ជំជំ		NE

I love the size of 'Cylindra'. It doesn't grow so big and turn white when you cook them. It's a great beet.



Taunus	HHHHH	0	SE
'Taunus' is an OK	beet, but its	flavor is	more
earthy. 'Cylindra' l	nas a very clea	an and sv	weet
taste; it is actually	outstanding.	'Cylindra	a' is a
great tasting beet.	This was a fu	ın trial fo	or
me. I have never g	grown cylindr	ical beets	S
before but will ag	ain in the futu	are. They	are

Cylindra



easy to work with and prepare.

'Cylindra' seedlings emerged first but both varieties showed good germination. 'Cylindra' had more of the larger beets and they were easier to slice. I could not tell any difference in taste between the two varieties. I would plant both varieties again, but 'Cylindra' was just a little better.

Cylindra 📅 😊 SE

'Cylindra' germinated better and produced more beets.

Cylindra © SE

'Cylindra' was by far our favorite. It looked better and tasted better.

Both varieties were slow to germinate due to dry conditions as I had to haul water and/or depend on rain for my garden moisture. 'Cylindra' was the better performer under my tough growing conditions.

'Cylindra' germinated better in the dry soils, and this led to higher yields.

## Best red beet varieties

Top choice Merlin

## Strong performers

Bull's Blood Cylindra Detroit Dark Red Early Wonder Tall Top Red Ace

## Prefer 'Cylindra' (continued)

Cylindra 📅 😊 NC

'Cylindra' roots were more uniform in size. We liked that quality for cooking and canning.

Cylindra 📅 😂 SC

The beets grew 3–4 inches up and out of the soil. If I grew them again, I would hill the beets like potatoes. As it was, the skins became hard and tougher to peel for canning. Both varieties had a consistent red color when sliced and canned. 'Cylindra' was a slower, smaller beet.

Cylindra © NW

'Cylindra' had double the germination rate and much higher yields. I like the short, strong tops of 'Taunus'.

Cylindra ©
Taunus © NW

'Cylindra' roots were slightly larger. Both were delicious.

Cylindra 💮 😊 SW

'Cylindra' produced higher yields.

Cylindra © SW

'Cylindra' germinated better. Both varieties produced very good yields. I have never enjoyed such a wonderful taste in beets.

'Cylindra' was better. Both varieties were prolific and produced more than I wanted.

## **Prefer 'Taunus'**

Cylindra ©
Taunus © MN

Both varieties grew out of the ground more than in the ground. Deer liked them a lot. Cylindra 📅 😂 NE

'Taunus' roots were sweeter. Its leaves had more holes in them. 'Cylindra' germinated better but the varieties produced similar yields because 'Taunus' roots grew larger.

Cylindra © SE

'Taunus' did slightly better even without thinning. Its roots got slightly larger.

Cylindra 💢 😇 NC

'Taunus' roots had a little richer color. Both varieties produced very well; their roots had a nice size and shape.

Cylindra © NC

Both varieties were healthy and ready to harvest at the same time. Both varieties provided attractive beets. I felt 'Taunus' was a little better tasting (and so did the rabbits).

Cylindra \*\*\* ©
Taunus \*\*\*\* © SW

'Taunus' matured earlier. I loved that both varieties had only a small amount of greens, thus can be planted closer together.

'Taunus' was awesome. It was delicious and canned up beautifully. It did not lose its color. I got many beets from both varieties and they were good all season.

### **No Preference**

Cylindra © NE

Both varieties showed rapid growth and early maturity. They were similar in all traits.

### **Conclusions**

'Cylindra' germinated better under the dry conditions, and this led to higher yields. 'Cylindra' showed an edge in earliness. There were no clear distinctions between the varieties in the appearance and taste of their roots.

Gardeners
liked the flavor
of both
varieties. No
clear and
consistent
differences
were detected
between the
varieties for
the looks and
tastes of their
roots.

# **Carrot, Early**

#### **Varieties**

#### 'Napoli'

58 days. Crunchy, sweet roots with a blunt shape. Called "candy" carrots when harvested in fall.

#### 'Yaya'

56 days. Roots are smooth, sweet and crisp. A popular summer carrot that can be harvested in fall.

#### Data

Gardeners at 48 sites submitted information.

Trait	Napoli	Yaya	Same
Germinated best	39%	13%	48%
Healthier plants	38	13	50
Harvested earlier	43	20	37
Higher yields	43	11	46
More attractive root	ts <b>39</b>	30	30
Tasted better raw	31	38	31
Tasted better cooke	d 16	32	52
Preference	52	48	
Recommend (©)	79	64	
Mean score <sup>1</sup> Median score <sup>1</sup>	7.45 8.00	7.00 <b>8.00</b>	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Napoli'

Napoli	<b>含含含含</b> 含	$\odot$	
Yaya	青青青草草	$\odot$	NE

'Napoli' had faster growth, bigger carrots.

Napoli	<b>***</b>	$\odot$	
Yaya	ត់ត់ត់ជាជា	$\odot$	NE

'Napoli' had higher yield and greater sweetness. It had healthier tops and roots. Its roots were larger, with pointed ends. They were more attractive and tended to get large much faster. 'Yaya' roots were smaller (9 inches) with blunt ends. When eaten raw, 'Napoli was a bit sweeter, but both were sweet with good taste. 'Yaya' tasted better than 'Napoli' when cooked.



Napoli	***		CE.
Yaya No comments.	******	٥	SE

Napoli	****	$\odot$	
Yaya	****		SE

'Napoli' roots were beautiful—smooth and straight and thick. It germinated better and produced more carrots.

It took a while to produce a yield but both varieties eventually produced decent sized carrots. I liked the size of 'Napoli' roots.

Napoli	** A COLOR	$\odot$	
Yaya	<b>ដ</b> ាជាជាជាជា	$\odot$	SE

Neither germinated very well so only got about half the crop I should have.

Napoli	****	$\odot$	
Yaya	<b>គំគំ</b> ជាជាជ		SE

'Napoli' tasted better fresh compared to 'Yaya'.

'Yaya' germinated poorly and produced poorly.

Napoli Yaya © NC

'Napoli' was a sweeter tasting carrot. 'Yaya' had larger, longer carrots. Neither variety had a very good germination rate.

'Napoli' showed greater vigor. It germinated better, grew faster and produced higher yields.

# Best Nantes carrot varieties

Top choice Goldfinger

# Strong performers

Laguna Mokum Napoli Nelson Yaya

# Prefer 'Napoli' (continued)

'Napoli' roots grew bigger and tasted better. My garden is in a shady area.

Napoli 

Yaya 

SC

I got a bigger, faster harvest from 'Napoli'. The carrots of both varieties tasted very sweet and were really good!

Napoli Yaya SC

'Napoli' roots were perfectly shaped. They were more uniform, bigger and straight. 'Yaya' was much sweeter once cooked with cream and butter—yum!

'Napoli' had at least double the germination, which helped it to have at least double the yield. When eaten raw, its roots tasted slightly better than those of 'Yaya', but both were good. I liked the small, sturdy tops of 'Yaya'.

'Napoli' roots were long, straight and had great color. Both varieties were great.

Napoli 🙀 😅 SW

'Napoli' has a nice, rounded root. Both varieties grew back from hail and produced large carrots!

Napoli Yaya SW

'Napoli' was a shorter stubbier carrot but was sweeter. 'Yaya' was tasteless.

'Yaya' did not germinate.

### Prefer 'Yaya'

Napoli Taranti © NE

'Yaya' taste was excellent—very tender and sweet. Its roots were larger. 'Napoli' germinated better, was a stronger plant, and produced a higher yield. Both varieties tasted good when cooked.

Napoli © NE

'Yaya' roots were slightly more attractive. Both were really good carrots that performed well.

Napoli 🙀 😊 SE

'Yaya' had a higher yield even though 'Napoli' was sweeter. 'Napoli' roots were straighter and had less forking of roots.

'Yaya' produced nice, slim, straight roots. 'Napoli' roots were overgrown and wild.

Napoli 

Yaya 

SE

'Yaya' had a milder, sweeter taste. 'Napoli' had bigger, longer, straighter roots.

Napoli Yaya © NC

'Yaya' had slightly better flavor; love the sweetness and crunch! Its roots were more uniform in size. 'Napoli' produced a slightly higher yield. A few of its roots were very large, some were medium, and some were tiny.

Napoli 💮 Yaya 💮 NC

NC

'Yaya' was a bigger, more robust carrot.

Napoli ★★☆☆ ③
Yava ★★★☆ ③

No comments.

More gardeners preferred the taste and sweetness of 'Yaya', both raw and cooked.

# Prefer 'Yaya' (continued)

Napoli Grand SC

I had to reseed due to low germination the first time. 'Yaya' was less likely to have forked roots, making it much easier to clean them. Overall, both varieties did well once we got them established. Both were very tasty.

Napoli Yaya ♣ SC

'Yaya' had sweeter flavor than 'Napoli' when eaten raw.

Napoli ★★★★ ② SC

'Yaya' pretty much stole the show. It had better flavor.

Napoli ★★★★ © Yaya ★★★★ © NW

'Yaya' was sweeter.

'Yaya' has sweeter flavor after cooking and also raw. Its roots were nicer looking.

Napoli ★★★★★ ② SW

'Yaya' germinated and grew better. It did not have the best flavor but tasted better than 'Napoli', which was tasteless.

'Yaya' was sweeter. 'Napoli' had fewer roots that split and twisted around.

SW

Yaya 📫 🗯 😊 MB

'Yaya' was just a tad sweeter, but both were excellent with a very early harvest.

#### **Conclusions**

Both varieties struggled to germinate in the dry soil. 'Napoli' showed greater vigor. It germinated better, grew faster and produced higher yields. 'Yaya' showed an edge in taste, and gardeners enjoyed its sweetness both raw and cooked.

Both varieties struggled to germinate in the dry soil caused by the springtime drought.

# **Carrot, Main Season**

#### **Varieties**

#### 'Goldfinger'

69 days. Dark orange roots with strong tops. Roots are uniform, smooth, straight and sweet. Popular carrot in North Dakota.

#### 'Rodelika'

72 days. Large roots are very sweet and flavorful. Widely used in Europe to make juice.

### Data

Gardeners at 57 sites submitted information.

Trait	Gold- finger	Rodelika	Same
Germinated best	<b>56</b> %	9%	34%
Healthier plants	29	0	71
Harvested earlier	37	11	52
Higher yields	63	20	17
More attractive roots	43	25	32
Tasted better raw	43	29	29
Tasted better cooked	1 26	30	44
Preference	63	37	
Recommend (©)	77	43	
Mean score <sup>1</sup>	7.43	6.30	
Median score <sup>1</sup>	8.00	7.00	

 $<sup>^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Goldfinger'

Goldfinger		
Rodelika		MN
(6.115 11.1	1: :11 D 1	

'Goldfinger' had a bigger yield. Both varieties had nice plants.

Goldfinger	****	$\odot$	
Rodelika	<b>**</b> **		MN

'Goldfinger had better germination and was ready to dig sooner than 'Rodelika'.

Goldfinger Rodelika	#####################################	MN

'Rodelika' only germinated a couple of plants.



Goldfinger	****	$\odot$	
Rodelika	<b>南南南南沿</b>	$\odot$	NE

'Goldfinger' produced a bit better yield, but both varieties had very good yields. The roots of both varieties canned up very nice.

Goldfinger	<b>**</b> ជាជាជា	$\odot$	
Rodelika	<del>ត</del> ាជាជាជាជា	$\odot$	NE

The germination of 'Goldfinger' was about average; the germination of 'Rodelika' was poor. 'Goldfinger' roots were moister and more slender—some broke off. It was a better producer. 'Rodelika' had large, tapered roots that were drier and not as good tasting. Neither variety was sweet.

Goldfinger	****	$\odot$	
Rodelika	***	$\stackrel{\text{\tiny (2)}}{\text{\tiny (2)}}$	SE

'Goldfinger' roots were more uniform in length. 'Rodelika' had some very large roots (2.5 inches in diameter and over 12 inches long). 'Goldfinger' had 50% germination; 'Rodelika' had less.

Goldfinger	<b>有有有有</b> 益	$\odot$	
Rodelika	<b>គំគំគំ</b> ជំជំ		SE
'Goldfinger' root	s had a better	appe	arance.



'Goldfinger' produced nicer looking carrots for us, but the taste of the two varieties was about the same. 'Goldfinger' germinated much better under the dry conditions, and it produced higher yields.

# Best Nantes carrot varieties

Top choice Goldfinger

# Strong performers

Laguna Mokum Napoli Nelson Yaya

# Prefer 'Goldfinger' (continued)

'Goldfinger' had better production. Germination was not very good with these carrots.

Goldfinger 📅 😇 NC

'Goldfinger' had 15% better germination. Its tops looked heavier and thicker. It yielded 20% more. Its roots had greater eye appeal; they were cylindrical with blunt tips compared to the tapered shape of 'Rodelika'. Eaten raw, 'Goldfinger' roots were crisper and had more of a carrot sweet taste. When cooked, I preferred the firmness and color of 'Rodelika'.

Goldfinger 📅 😂 NC

Both varieties had poor germination and their roots got too large. 'Goldfinger' germinated better.

Goldfinger SC SC

'Goldfinger' did much better. 'Rodelika' had very poor germination.

'Goldfinger' produced more plants, but not many. 'Rodelika' only produced a couple plants and didn't amount to much.

'Goldfinger' had nice, long, slender carrots. 'Rodelika' seemed to have more growth aboveground and less growth belowground.

Goldfinger 💮 😅 SW

Both varieties produced nice, full carrots. They were huge. 'Goldfinger' was sweeter.

Goldfinger © SW

'Rodelika' did not germinate.

'Goldfinger' had better flavor both raw and cooked. Its roots were longer and evenly shaped.

Goldfinger Rodelika ⊕ SW

'Rodelika' did not come up.

Goldfinger

Rodelika

\*\*Goldfinger' germinated better and the

'Goldfinger' germinated better and the plants were healthy. Its roots were smaller with a more uniform shape. Its raw flavor was better than the flavor of 'Rodelika'. 'Rodelika roots were very large and hard to dig. The lower portion of its roots were hollow. 'Rodelika' tasted sweeter than 'Goldfinger' when cooked.

'Goldfinger'
roots were
more
attractive.
They were
long, smooth
and straight.

#### Prefer 'Rodelika'

Both varieties were delicious. 'Rodelika' had nicer roots, good tasting.

'Rodelika' germinated 25% more. Its roots grew faster, had a more consistent shape, and tasted better. 'Goldfinger' was slightly bitter when eaten raw and tasted bland when cooked. Both varieties looked healthy in the garden.

Goldfinger
Rodelika

SE

Although I prefer the shape of 'Goldfinger', 'Rodelika' is much tastier.

Very poor (10%) germination. 'Rodelika' tasted better.

# Prefer 'Rodelika' (continued)

Although I liked the size and shape of 'Goldfinger', 'Rodelika' had a better yield and sweeter taste. 'Goldfinger' roots were cylindrical and 'Rodelika' roots were tapered. Both varieties tasted very good.

'Rodelika' had great germination, yield, flavor and shape. It had a slightly better yield and more consistent size. Its carrots were straight and did not fork.

'Rodelika' had a slightly sweeter taste. 'Goldfinger' produced almost twice the amount of carrots.

Goldfinger ##### ©
Rodelika ###### ©

'Rodelika' was sweeter. We had a cool spring and had to resow with good results.

SC

Goldfinger ★★☆☆☆ ⊗ NW

Both varieties took a long time to germinate and less than half the seeds germinated. 'Rodelika' had a slightly higher yield. Neither variety did well—it may have been the year.

Both varieties had very good germination. 'Rodelika' roots tasted better and were less fibrous. 'Goldfinger' was ready earlier but I prefer to harvest later in the season.

### **Conclusions**

'Goldfinger' was the clear favorite. It germinated much better under our dry conditions and produced much higher yields. Gardeners enjoyed its long, smooth, cylindrical roots. Gardeners were split on their taste preferences, giving an edge to 'Goldfinger' when carrots were eaten raw and an edge to 'Rodelika' when carrots were cooked. Most gardeners did not recommend 'Rodelika'.

More gardeners preferred 'Goldfinger' when carrots were eaten raw. They preferred 'Rodelika' when carrots were cooked.

# **Carrot, Yellow**

#### **Varieties**

#### 'Yellowbunch'

75 days. Vivid, sunny vellow roots grow 8 inches long and are slightly tapered. Imperator type.

#### 'Yellowstone'

73 days. Long, 8-inch roots with big shoulders. Easy to grow. Great flavor, both fresh or cooked.

#### **Data**

Gardeners at 10 sites submitted information.

Trait	Yellow- bunch	Yellow- stone	Same
Germinated best	13%	0%	88%
Healthier plants	0	0	100
Harvested earlier	13	25	63
Higher yields	13	25	63
More attractive root	s <b>38</b>	25	38
Tasted better raw	50	25	25
Tasted better cooked	d 17	33	50
Preference	57	43	
Recommend (©)	63	63	
Mean score <sup>1</sup>	7.25	7.00	
Median score <sup>1</sup>	8.50	7.50	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'Yellowbunch'

Yellowbunch	<b>南南南南</b> 市	$\odot$	
Yellowstone	<b>南京南南</b> 公		NC

'Yellowbunch' roots were brighter. Its taste and appearance were more eye appealing.

Yellowbunch	🛊ជាជាជាជា 🙈	
Yellowstone	ជាដោយជាជា 🕾	NC
		,

Neither variety grew big roots in my garden.

Yellowbunch	<b>未未未</b> 有	$\odot$	
Yellowstone	自由自由企		MB

'Yellowstone' tended to grow upward more so, rendering one-third the root inedible (green). This diminished its yield. Both varieties had excellent germination rates and grew well.



Yellowbunch Yellowstone



SD

'Yellowbunch' had a much nicer looking root and produced well. Its roots were not as large but had better flavor when eaten raw.

#### Prefer 'Yellowstone'

Yellowbunch	食食食食食		
Yellowstone	****	$\odot$	SC

Both varieties had great yield, growth and appearance. 'Yellowstone' was by far better in the raw taste test. Also edged out 'Yellowbunch' in cooked although both cooked up very well. 'Yellowstone' developed a more traditional orange cast as a day or so went by, although this is not a huge issue.

Yellowbunch Yellowstone



NW

'Yellowstone' had good cooking quality and produced three times more yield than 'Yellowbunch'. It germinated at 60% compared to 90% for 'Yellowbunch'. 'Yellowstone' was ready to harvest 3 weeks earlier. Its roots were 1.5 to 2.0 inches in diameter at its top and grew 8 to 9 inches long; twice the size of 'Yellowbunch'. 'Yellowstone' had more forked roots, and 'Yellowbunch' had several split roots. Neither variety was very sweet raw; they had a milder flavor than orange carrots. 'Yellowstone' was best baked or in marinara

sauce. Its mild flavor does not fight tomato or spices. 'Yellowbunch' was better steamed. I would only use these carrots for cooking.

'Yellowbunch' roots were brighter and slimmer. Many gardeners felt its raw carrots tasted better than those of 'Yellowstone'.

> **Best yellow** carrot varieties

Top choice Chablis Yellow

Strong performer Yellowbunch

### **Prefer 'Yellowstone'** (continued)

Yellowbunch
Yellowstone

I liked the smoothness and looks of 'Yellowstone'. It had much larger roots, almost too large with diameters of some over 2 inches. 'Yellowbunch' had slimmer roots, although there were some pretty large ones of them too. I prefer smaller, slimmer carrots. There was a lot of green on the tops of the roots, especially on 'Yellowstone', and 'Yellowstone' roots protruded out of the ground farther than 'Yellowbunch' did, hence probably why there was more green on them. As far as flavor goes, it is a toss-up. I really didn't care as much for the flavor or the raw carrots (I think orange carrots have more flavor), but they were both good cooked. In the future, I will probably grow a few yellow carrots for color, but I'll grow most of my carrots with an orange variety, plus a few purple carrots for color.

#### **No Preference**

Both varieties were excellent producers!

#### **Conclusions**

Yellowbunch' received higher ratings. Its roots were brighter and slimmer. Many gardeners felt its raw carrots tasted better than those of 'Yellowstone'. That said, neither variety was especially flavorful. Gardeners did not appreciate the green shoulders on the roots of both varieties. 'Yellowstone' roots were quite large, some exceeding 2 inches in diameter.

Neither variety was especially flavorful.
Gardeners were disappointed with the pronounced green shoulders on the roots.

#### **Key to Site Reports** (reports are presented from east to west) Recommendation to MN = Minnesota NW NC NE other gardeners NE = Northeast Ratings (ves or no) SE = Southeast (1 to 10)Location NC = North Central SC = South Central Variety A NW = Northwest Variety B NC Comments SW = Southwest 'Variety A' germinated better and produced MB = Manitoba the first harvest. We loved its taste. 'Variety SD = South Dakota B' produced higher yields but was tasteless. SW SC SE MT = Montana

# **Corn, Bicolor Early**

### **Varieties**

#### 'Sweetness' (svn)

68 days. An early corn of premium quality. The sturdy stalks produce well-filled ears of plump kernels.

#### 'Temptation' (se)

70 days. A top performer in North Dakota. The vigorous stalks produce heavy yields of tender, sweet corn.

#### **Data**

Gardeners at 22 sites submitted information.

	Sweet- '	Tempta-	
Trait	ness	tion	Same
Germinated best	27%	14%	<b>59</b> %
Healthier plants	18	32	50
Harvested earlier	50	32	18
Higher yields	36	23	41
More attractive ears	32	14	55
Tasted better	45	23	32
Preference	50	50	
Recommend (©)	77	73	
Mean score <sup>1</sup>	7.81	7.59	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'Sweetness'

Sweetness	会会会会会	$\odot$	
Temptation	会会会会会	$\odot$	MN
Sweetness' pro	duced nice big o	obe	

'Sweetness' produced nice big cobs.

Sweetness	会会会会会	$\odot$	
Temptation	that the think t		NE

'Sweetness' had large ears, ripened quicker, and was our favorite of six varieties planted this year!

Sweetness Temptation SE Both tasted very good. 'Sweetness' was a bit sweeter.



Sweetness Temptation

SE

'Temptation' did not produce ears. Though 'Sweetness' only produced five ears that were quite short, they had the largest kernels we've ever seen. We think that with better moisture conditions, 'Sweetness' may have really flourished!

Sweetness SE Temptation

'Sweetness' had a nicer appearance and standability in a small garden area. When I cooked up both varieties, 'Sweetness' cobs disappeared first. 'Temptation' stalks were 6 inches taller but lodged.

Sweetness Temptation NC

A storm knocked over most of the corn stalks, 'Sweetness' ears had a better fill of the rows of kernels.

Sweetness Temptation SC

'Sweetness' was a very high yielding, very sweet corn. It was earlier by about a week and outyielded 'Temptation' by quite a bit.

Sweetness \*\*\*\* SCTemptation

'Sweetness' had excellent germination and was ready early. It ripened evenly and had more good ears. 'Temptation' had variable ears that ripened 5-10 days later.

'Sweetness' ripened quicker and had higher vields at more sites. Its ears were more attractive and tasted sweeter to more gardeners.

# **Best bicolor** se and syn corn varieties

Top choice Peaches & Cream

# Strong performers

Allure Ambrosia Cuppa Joe Delectable Luscious Sweetness Temptation

# Prefer 'Sweetness' (continued)

Sweetness © SC

'Sweetness' came through the ground first. 'Temptation' was shoulder high by July 8 and was taller than 'Sweetness'. Both varieties had some ears that were not fully covered with kernels. 'Sweetness' produced first and was just a tad more flavorful. I would plant either variety again in my garden.

Sweetness © SC

I liked that these varieties both produced quickly and tasted good. 'Sweetness' was a little sweeter and more tender. It produced more. 'Temptation' ripened a day or two earlier. Both varieties were good.

### **Prefer 'Temptation'**

Sweetness © NE

Both varieties were blown over early in the season but stood back up with a few weeks. "Temptation' germinated better.

Sweetness © SE

'Temptation' produced a higher yield and was a bit sweeter. I believe they both would have performed better if I would have fed them more nitrogen. They were quite short, but still very lovely in a backyard garden.

We enjoyed both varieties. "Temptation' grew taller/faster/stronger than 'Sweetness'. "Temptation' seemed a bit hardier. It was able to withstand some strong winds we had in June.

Both varieties tasted great. Heat and drought caused poor pollination and stunting of cobs. 'Temptation' stalks grew taller. I could use the stalks for corn shocks to use for fall yard decorating.

Sweetness © NC

Both germinated well and were healthy. 'Temptation' stalks were taller and stronger; they had two or three ears per stalk—more bang for your buck! Its ears were 3 to 4 feet above the ground. 'Temptation' ears and the kernels were longer. 'Sweetness' was ready 2 weeks earlier. Its ears were smaller and close to the ground (1 to 2 feet); easy for raccoons to reach. Both tasted great!

Sweetness © SC

'Temptation' had taller, healthier looking plants. It also produced more uniform and attractive cobs.

Sweetness © SC

'Temptation' was best—sweet taste. Both ripened quickly once tasseled. Weather conditions were perfect.

We enjoyed our first meal of corn on August 14, and 'Temptation' had better flavor and was much sweeter than 'Sweetness'. 'Sweetness' had larger, more filled out cobs. Both varieties grew quite tall and healthy until the raccoons invaded.

NW

'Temptation' was ripe 2 weeks earlier than 'Sweetness'. Its taste was excellent and its kernels slightly deeper. 'Sweetness' was not sweet enough.

'Temptation' had a taller and sturdier stalk. Its ears were bigger and better looking. They were located on the stalk at a normal picking height. 'Sweetness' germinated earlier and better. Both varieties survived 90 mph straight line winds the morning of July 4 and stood themselves back upright in about a week. Both varieties had a lot of double ears, but 'Sweetness' ears were only about 1.5 feet above the ground.

'Temptation'
has always
performed well
in our trials. Its
stalks showed
good vigor.

### **No Preference**

Sweetness © SC

Both varieties were great! Equally great!

Sweetness © SC

This was a split decision. Four out of five family members preferred 'Sweetness', but the gardener in charge preferred "Temptation'.

#### **Conclusions**

This was a split decision. Half of the gardeners preferred 'Sweetness'. It ripened quicker and tasted a little sweeter. The other half preferred 'Temptation'. Its stalks showed good vigor. Each variety was recommended by three out of four gardeners. No glaring weaknesses of either variety were identified.

This was a split decision. Both varieties ripened quickly and produced delicious sweet corn. No glaring weaknesses were detected.

# Corn, Bicolor Super Sweet

**ACes** 

### **Varieties**

#### 'ACes' (shA)

78 days. Long, 8-inch ears filled with flavorful, tender kernels. Outstanding flavor.

#### 'American Dream' (shA)

77 days. Award winner. Sweet, tender kernels of amazing quality. Easy to grow. Sturdy stalks.

#### **Data**

Gardeners at 23 sites submitted information.

Trait	American ACes Dream Same		
Germinated best	27%	18%	55%
Healthier plants	14	27	59
Harvested earlier	25	40	35
Higher yields	35	25	40
More attractive ears	15	40	45
Tasted better	5	25	70
Preference	35	65	
Recommend (©)	71	81	
Mean score <sup>1</sup>	7.43	7.62	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### **Prefer 'ACes'**

ACes	金金金金金	$\odot$	
American Dream	to to to to to	8	NE
'American Dream'	did not gern	ninat	e well.

ACes	食食食食食	$\odot$	
American Dream	公会会会会	$\odot$	NC

'ACes' produced more cobs per stalk and germinated slightly better. I forgot to isolate this corn from other varieties and their flavor was not the best.

ACes	设计会计	$\odot$	
American Dream	会会会会会	$\odot$	SC
I loved them both	1		



American Dream SC
'ACes' is an excellent variety. Great growth,
fill and quality. Its ears were long and filled
all the way to top of cob. 'American Dream'
was more temperamental—needed a lot of
sunlight and water. It was slower to mature,
and its ears were shorter and did not fill as
well. Both varieties suffered major lodging
damage—probably due to stage of
development and the weather. Both varieties
were very sweet. I will not plant 'Peaches &
Cream' again—'ACes' is far superior with
longer lasting quality.

ACes
American Dream

These varieties did not produce very well for me. The leaves of 'ACes' started turning brown about the time it cobs started silking. Its ears were much longer and slender but didn't fill well. 'American Dream' produced very small, stubby cobs but its kernels filled out more.

ACes © SW

Both were good but 'ACes' was probably the most delicious corn I have ever raised! It was sweeter.

ACes
American Dream

ACes' stalks went down in the first storm

'ACes' stalks went down in the first storm and came right back up; next storm not so lucky. It produced higher yields. Gardeners enjoyed the taste of both varieties. 'ACes' showed good vigor and good yields.

# Best bicolor super sweet corn varieties

Top choice Anthem XR

# Strong performers

American
Dream
SS2742
Xtra-Tender
274A
Xtra-Tender
277A

#### **Prefer 'American Dream'**

ACes
American Dream
'American Dream' was sweeter—really

'American Dream' was sweeter—really sweet tasting.

'American Dream' had one 9-inch ear on each stalk and had a stronger corn taste. 'ACes' had two 7.5-inch ears per stalk. Both were very sweet. We would grow either one of these again.

'American Dream' grew well and stood up to high winds. Lots of 'ACes' plants fell over due to high winds.

ACes © NC

'American Dream' produced three to four ears per stalk. 'ACes' produced two ears per stalk.

ACes © NC

A couple dogs ran through the corn and knocked the stalks down. 'American Dream' survived better and produced higher yield. Both varieties were tasty.

ACes
American Dream Stood up better to wind.

ACes SC SC

'American Dream' had a better yield and tasted great. 'ACes' stalks dried up fast and did not produce much.

ACes
American Dream
SC

'American Dream' had nicer ears.

Both varieties survived the high winds we had, getting knocked down twice. I also didn't water them as much as I should have but they still yielded well. Both varieties produced really nice, long ears but 'American Dream' ears were fatter and slightly sweeter.

ACes
American Dream
SC
Both varieties produced very tasty ears. The varieties were fairly similar, and I would plant both again.

'American Dream' started out the gate better. When tasting them, one variety didn't stick out as superior to the other.

ACes
American Dream
SW
Plants dried up after a few weeks.

ACes © MB

'ACes' developed smut on a number of ears; whereas 'American Dream' had none. 'ACes' had slightly higher yields. I could not tell any difference in taste between the two varieties.

#### **No Preference**

ACes
American Dream \*\*\* © SC
No comments.

#### **Conclusions**

Most gardeners preferred 'American Dream'. It ripened earlier and produced very attractive ears. 'ACes' showed good vigor and good yields. It often produced more than one ear per stalk. Lodging was an issue for many gardeners and 'American Dream' usually tolerated high winds better. Gardeners enjoyed the taste of both varieties.

'American
Dream' ripened
earlier at more
sites. More
gardeners felt
its ears looked
better and
tasted sweeter.
Its stalks were
less likely to
lodge due to
high winds.

# Corn, Yellow Super Sweet

#### **Varieties**

#### 'SS3778R' (shA)

76 days. Superior germination in cold soil. Great quality. Excellent tip fill. Sturdy stalks.

#### 'Vision MXR' (shA)

75 days. Long ears with tender, sweet kernels. Disease-resistant stalks. A proven performer in North Dakota.

#### **Data**

Gardeners at 4 sites submitted information.

Trait	SS3778R	Vision MXR	Same
Germinated best	100%	0%	0%
Healthier plants	50	50	0
Harvested earlier	100	0	0
Higher yields	75	0	25
More attractive ea	rs <b>50</b>	0	50
Tasted better	50	0	50
Preference	75	25	
Recommend (©)	75	0	
Mean score <sup>1</sup>	7.25	2.00	
Median score <sup>1</sup>	8.00	1.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Preferred 'SS3778R'

SS3778R	会会会会会	$\odot$	
Vision MXR	TO TO TO TO	$\odot$	SE

'SS3778R' is very good tasting corn! Only a few plants of 'Vision MXR' germinated.

SS3778R	会会会会会	$\odot$	
Vision MXR	that the		NC

'SS3778R' had 100% germination. It produced nice 8-inch cobs with good yield and good flavor. 'Vision MXR' had 0% germination. It was a very poor garden year.

'SS3778R' germinated well, grew vigorously and produced delicious corn. 'Vision MXR' did not germinate.



#### **Prefer 'Vision MXR'**

SS3778R	The state of the s	
Vision MXR	that the	MB

'Vision MXR' did not germinate when sown on May 21. I replanted the remaining seeds 3 weeks later and these nearly caught up to 'SS3778R'. 'SS3778R' was subject to smut. Both varieties had ears with very thin husks which were very quickly invaded by insects—needed to be picked immediately upon ripening. Also, their kernels were very shallow in depth.

#### **Conclusions**

This trial was a mystery. 'Vision MXR' has done well in the past, but several gardeners noted 0% germination this year. This included sowings when the soil was warm in early June. This problem could have been caused by poor seed quality and not the cultivar itself. 'SS3778R' is known for its outstanding seedling vigor and it germinated well in our trials. Its stalks grew vigorously and produced delicious corn.

'SS3778R'
germinated
much better. It
grew well and
produced
delicious corn.
'Vision MXR'
has done well
in the past but
did not
germinate in
several
gardens this
year.

Best yellow super sweet corn variety

Top choice SS3778R

# Corn, Ornamental

### **Varieties**

#### 'Autumn Explosion'

105 days. High yields of long ears. Kernels come in a rainbow of colors, including variegated kernels.

#### 'Fiesta'

100 days. The standard for quality among early varieties. Colorful ears, many with purple husks.

#### **Data**

Gardeners at 7 sites submitted information.

	Autumn		
Trait	Explosion	Fiesta	Same
Germinated best	0%	20%	80%
Healthier plants	0	60	40
Harvested earlier	0	80	20
Higher yields	20	80	0
More attractive ea	ars 60	40	0
Preference	40	60	
Recommend (©)	40	100	
Mean score <sup>1</sup>	4.80	7.60	
Median score <sup>1</sup>	2.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### **Prefer 'Autumn Explosion'**

Autumn Explosion Fiesta © MN

'Autumn Explosion' was the tallest corn I have ever grown. It grew to over 12 feet tall. The ears were up to 8 feet on the stalks and many stalks had two ears. Both varieties had very nice ears of multicolored corn.

Autumn Explosion Fiesta



'Autumn Explosion' ears are prettier.

#### Prefer 'Fiesta'

Autumn Explosion \*\*\*\*\*\*\*\* © NE Fiesta

Both varieties germinated very well. 'Fiesta' stalks were a lot smaller. Its ears matured 2-3 weeks earlier. The stalks of 'Autumn



Explosion' were beautiful. Its ears were larger and longer, however were unevenly pollinated because the tassels emerged very unevenly. I loved the look of the 'Autumn Explosion' ears that produced well.

Autumn Explosion Fiesta



'Fiesta' had a much shorter stalk than 'Autumn Explosion', the difference was over a foot ... but 'Fiesta' produced a way better product. It sent out tassels 13 days earlier and had a much higher yield. 'Autumn Explosion' had many ears that did not fill

out all the way or some not at all.

Autumn Explosion Fiesta





'Fiesta' stalks grew 7 to 8 feet tall and produced more cobs per plant. Its ears had unbelievable and beautiful colors—deep reds, nice blues—loved them. 'Autumn Explosion' stalks grew over 10 feet tall. They produced fewer cobs and took longer to mature. Its ears had very pale colors.

#### **Conclusions**

'Fiesta' is an attractive and reliable ornamental corn for North Dakota. Its stalks were healthy, and its crops were ready for harvest earlier than those of 'Autumn Explosion'. It produced higher yields. Every gardener in the trial recommended it. The stalks of 'Autumn Explosion' were very tall, over 10 feet. Most gardeners felt its ears were more attractive, although gardeners appreciated the beauty of both cultivars.

'Fiesta' ripened earlier and produced higher yields. **Gardeners** enjoyed the beautiful ears of both varieties.

# Best ornamental corn varieties

Top choice Fiesta

# Strong performers

Autumn Explosion Cherry Berry Painted Mountain

# Corn, Popcorn

#### **Varieties**

#### 'Dakota Black'

100 days. Dark, maroon-black kernels are beautiful and pop into a delicious treat. Compact stalks.

#### 'Robust 98114W'

105 days. Vigorous stalks produce large ears of hulless, white kernels. Its popcorn is tender, light and flaky.

#### **Data**

Gardeners at 16 sites submitted information.

Trait		Robust 98114W	Same
Germinated best	33%	7%	60%
Healthier plants	13	40	47
Harvested earlier	93	0	7
Higher yields	50	29	21
More attractive ear	s <b>86</b>	7	7
Tasted better	43	0	57
Preference	77	23	
Recommend (©)	80	40	
Mean score <sup>1</sup>	8.14	7.14	
Median score <sup>1</sup>	8.50	7.50	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'Dakota Black'

Dakota Black Robust 98114W NE

'Dakota Black' has lots of ears; very pretty to look at. Both varieties had smut on ears and stalks. We have not eaten popcorn any yet; still drying.

Dakota Black \*\*\* Robust 98114W NE

'Dakota Black' was an earlier variety that dried down on the cob. 'Robust 98114W' is a very showy variety with very tall and very dark green stalks. It requires a much longer season. Its cobs are hanging in my basement still drying down.



Dakota Black Robust 98114W SE

SE

'Dakota Black' had higher yield and heartier stalks. Several of its ears developed corn smut. As for the taste, we can't comment; the kernels of both varieties are still drying.

Dakota Black Robust 98114W

'Dakota Black' was much earlier. Its silks dried before any silks of 'Robust 98114W' appeared. 'Dakota Black' had 34 short, plump ears. Its silks were beautiful and pink; its stalks were reddish; its kernels were beautiful. The stalks of 'Robust 98114W' grew 1 foot taller and produced 36 long, narrow ears. Its ears barely matured before frost on September 28-too late for my garden. Both varieties popped okay and tasted great—no difference in taste.

Dakota Black Robust 98114W \*\*\*\*\* © SE

I love the jet black color of 'Dakota Black' kernels. 'Robust 98114W' is still maturing/ drying. 'Dakota Black' was ready for harvest this last weekend and produced one cob on each stalk. I am still waiting for 'Robust 98114W' but they looked to have much fuller kernels and bigger cobs.

'Dakota Black' produced higher yields and was ready to harvest weeks earlier. Its black kernels were stunning, crunchy and delicious.

**Best** popcorn variety

Top choice Dakota Black

# **Prefer 'Dakota Black'** (continued)

Dakota Black Robust 98114W TO TO TO THE SE

'Dakota Black' is more attractive and was ready to pick sooner. The ears of neither variety are dry enough to pop yet. Both varieties grew well but a few ears of 'Dakota Black' had smut on them.

Dakota Black Robust 98114W SC

'Dakota Black' matured almost 3 weeks earlier and produced 50% more. Its ears were more uniform, making them easier to shell. I prefer to eat 'Dakota Black' because it is crunchier, but I liked the flavor of Robust 98114W' better.

Dakota Black SC 'Dakota Black' had higher yields. We haven't popped the popcorn yet, just barely got it

out of the field 2 days ago. 

Dakota Black

SW Both were good but quite different varieties. 'Dakota Black' was at least 2 weeks ahead in maturity if not more. I was not sure 'Robust 98114W' would mature before frost. 'Dakota Black' popped in a large fluffy pop; its kernels were larger. 'Robust 98114W' popped into a firmer, round pop; its kernels were smaller, and its hulls were tougher. Both varieties were good eating.

Dakota Black 金金金金金 Robust 98114W SW

'Dakota Black' cobs were very full and attractive. The corn is still drying-unable to taste yet.

### Prefer 'Robust 98114W'

Dakota Black Robust 98114W MN

'Robust 98114W' had bigger cobs, more seeds. 'Dakota Black' had very small cobs but tasted better.

Dakota Black Robust 98114W SC 'Robust 98114W' has more kernels on the cob that pop.

Dakota Black Robust 98114W SC

Both varieties produced very good stands; the 'Robust 98114W' stalks were substantially taller and produced more ears. Its ears were larger and nicer—twice the production. 'Dakota Black' matured several weeks earlier. It tasted great but didn't produced nearly as much popcorn. The ears of 'Robust 98114W' are still drying.

The stalks of **'Robust** 98114W' were more vigorous. They produced larger ears but not higher vields.

#### **No Preference**

Dakota Black SE

I'm still waiting on my kernels to dry down. 'Dakota Black' matured earlier but the size of the kernel is double that of 'Robust 98114W' and is taking longer to dry. At picking in mid-September, 'Dakota Black' was lower in moisture than 'Robust 98114W' but now 'Robust 98114W' has a lower moisture content.

#### **Conclusions**

Gardeners preferred 'Dakota Black'. Its compact stalks produced good yields that were ready to harvest a couple weeks earlier. The black kernels of 'Dakota Black' were stunning and delicious. Every gardener who dried and popped the kernels felt 'Dakota Black' tasted as good as, if not better, than 'Robust 98114W'. The stalks of 'Robust 98114W' were truly robust. These stalks produced larger ears but not higher yields. Both varieties were subject to smut.

# **Cucumber, Burpless**

#### **Varieties**

#### 'Summer Dance'

60 days. Straight, glossy cukes of exceptional quality. Productive vines tolerate heat and diseases.

#### 'Summer Top'

60 days. Easy to grow. Heavy yields of 9inch, dark green, high quality cucumbers. Vines resist diseases.

#### **Data**

Gardeners at 57 sites submitted information.

Trait	Summ. Dance	Summ. Top	Same
Germinated best Healthier plants Harvested earlier Higher yields More attractive cul Tasted better	22% 27 36 23 kes <b>43</b> 20	16% 17 <b>45</b> 23 17	61% 56 19 53 39 65
Preference Recommend (©) Mean score <sup>1</sup> Median score <sup>1</sup>	60 88 8.22 9.00	40 71 7.76 8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### **Prefer 'Summer Dance'**

Summer Dance Summer Top NE

'Summer Dance' cucumbers were nice, long, and easy to eat for all of us. They stayed tender longer while some of the 'Summer Top' cucumbers tended to curl rapidly (though their quality was still okay). Both varieties were very good eating! All of us thoroughly enjoyed these edible cucumbers right off the vine. They were a real treat when picked small and tender. Our grandkids headed right to these cucumbers as soon as they got to the house.



Summer Dance Summer Top





NE

There was 100% germination for both varieties. We harvested over 600 cucumbers from both varieties combined. 'Summer Dance' had lots of cucumbers and lots of flowers still going until frost!

Summer Dance 会会会会会 Summer Top NE

Both germinated well and grew as strong plants. The cucumbers of both varieties were excellent. The best cucumbers I've ever had! I liked their seedless quality. I got to share with many in the community and they appreciated the gift! At the end of the season, their cucumbers were placed in the refrigerator but started to mold after 3 days. 'Summer Dance' produced twice as many cucumbers.

Summer Dance Summer Top





Both varieties did poorly; diseases were prevalent. 'Corinto' and Marketmore 76' would be better.

Summer Dance Summer Top

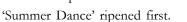






SE

SE









The cucumbers of both varieties were delicious, but the ones of 'Summer Dance' had no scabbing.

**Both varieties** produced lots of cucumbers. The fruits were long, thinskinned, smallseeded and never bitter.

# **Best burpless** cucumber varieties

Top choice Summer Dance

# Strong performers

Orient Express II Sweet Slice **Sweet Success** Tasty Green

### **Prefer 'Summer Dance'** (continued)

Summer Dance Summer Top SE

'Summer Dance' produced a better yield.

Summer Dance Summer Top SE

'Summer Dance' took about a week longer to produce. Its cucumbers had a more attractive shape and its skin was more resistant to tears and bruising. They also kept a bit longer.

Summer Dance
Summer Top
Summer Dance' had higher yield but they both had good flavor.

Summer Dance Summer Top SE

I used these for canning and had good results. Both were wonderful. 'Summer Dance' cucumbers were straighter and easier to use. They were never bitter.

Summer Dance Summer Top SE

'Summer Dance' cucumbers grew a little straighter, but the cucumbers of both varieties tasted good. Both varieties germinated well, and their vines were very healthy, green and had lots of blossoms.

Summer Dance ★★★★ ⑤ Summer Top ★★★★ ⑥ NC

'Summer Dance' vines had more vigor and couldn't stop producing. It produced 30% more cucumbers. Its cucumbers were darker and glossy with a crisper, firmer taste.

Summer Dance ★★★★☆ ☺ NC

Both varieties were very good and produced lots of cukes. I sowed in a greenhouse in early May. This seemed to really help in getting early cukes. We were very pleased and enjoyed these varieties. There were lots of cukes to eat and share.

Summer Dance
Summer Top

Summer Dance' produced straighter and

'Summer Dance' produced straighter and more flavorful cucumbers. Both varieties were small seeded and had a thin skin, which would be my major requirements.

Summer Dance
Summer Top
'Summer Dance' cucumbers were larger and straighter.

Summer Dance Summer Top © NC 'Summer Top' germinated sooner, but both

'Summer Top' germinated sooner, but both varieties had good germination. Both varieties were very healthy, but 'Summer Top' looked more vigorous. Both were grown on an upright fence. 'Summer Top' produced slightly earlier. Both varieties produced a great number of cucumbers. Both varieties were a nice long, straight cucumber, dark green, perfect for slicing. Most of my taste testers chose the flavor of 'Summer Dance'. Its cucumbers were very crisp with a sweeter flavor.

Summer Top 

Summer Top 

Output

Outp

'Summer Top' was first up, but 'Summer Dance' had a better germination rate. The plants of both varieties were healthy. 'Summer Top' produced 7–10 days earlier and its yields were more prolific. 'Summer Dance' cucumbers were straight and nice, dark green. 'Summer Top' was more likely to have severely curved cucumbers. The cucumbers of both varieties had great taste.

Summer Dance Summer Top © NC

All seeds came up. Their vines were healthy with no disease. 'Summer Dance' produced 1 week earlier. It produced more cucumbers early in the season but fewer later in the season. 'Summer Dance' cucumbers were straighter and not so big in diameter without getting long. In my group of 15 taste testers, 10 preferred 'Summer Dance'. People who tasted it said it was the best cucumber they'd ever eaten. It is excellent—crisp with few seeds and never bitter— no matter how big they got.

Gardeners
loved 'Summer
Dance' for its
straight and
slender,
smoothskinned fruits.

# **Prefer 'Summer Dance'** (continued)

Summer Dance \*\*\* © SC

'Summer Dance' tasted better (sweeter) and its fruit was a nice straight cucumber. I gave samples of the cukes to other people, and those two couples liked the flavor of 'Summer Dance' as did I. Both were good varieties.

Summer Dance
Summer Top

SC

Lonioused wonderful susumber soleds from

I enjoyed wonderful cucumber salads from both varieties.

Summer Dance
Summer Top
Summer Dance' cucumbers were so nice

and straight, and their flavor is superb.

Summer Dance

Summer Top SW Summer Dance' was more of a crisp cucumber with smaller seeds, which I

cucumber with smaller seeds, which I prefer. Both varieties did very well and are still producing.

Summer Dance Summer Top SW SW

They both produced long, thin cucumbers. They were so similar for characteristics but 'Summer Dance' produced the first cukes.

Summer Dance
Summer Top

I did not have good luck with the cukes this year.

Summer Dance Summer Top SW

'Summer Dance' had larger cucumbers.

Summer Dance Summer Top SW

'Summer Dance' cucumbers were more attractive—no curls on the end. Its vines produced longer in the season.

Summer Dance Summer Top Summer Dance' produced more.

# **Prefer 'Summer Top'**

Summer Dance
Summer Top
Summer Top' germinated better and
bloomed first. These varieties are so similar.
Both produced excellent cucumbers—crisp

summer Dance Summer Top SE

'Summer Top' produced the first cukes and continued to produce all summer until frost.

Summer Dance Summer Top SE

'Summer Top' cucumbers were very straight while 'Summer Dance' cucumbers seemed to curl. I was impressed with both varieties in flavor, size and production. I liked that they had minimal seeds when picked at an early size. If they got too big (which happened overnight practically), they got seedy. 'Summer Dance' had nice full plants as did 'Summer Top'.

'Summer Top' was more vigorous and produced first. Loved its taste.

Both varieties were excellent, however 'Summer Top' produced first. Both varieties produced sweet tasting fruits. Both varieties produced until the middle of September. Both varieties were popular at the Farmers Market with many repeat customers. I will plant both varieties again next year. We irrigated the vines using drip irrigation every other day during the extremely dry summer.

Summer Dance \*\*\* © NC

I put up a trellis and both varieties produced high yields, but 'Summer Top' was higher. I had to give some away. Some of the cucumbers of both varieties curled. I could tell any difference in their tastes. Their vines wilted during hot weather but were okay during mornings when cool. I had to water during dry spells.

The vines of both varieties were healthy and produced lots of cucumbers until frost.

# **Prefer 'Summer Top'** (continued)

Summer Dance \*\*\* © SC

'Summer Dance' had a lot of curled cukes whereas 'Summer Top' cukes were more uniform and straight. 'Summer Top' produced longer.

Summer Dance Summer Top SC

All 'Summer Top' seeds germinated.

Summer Dance Summer Top SC SC

The two varieties performed very similar to each other. 'Summer Top' germinated better and was healthier.

Summer Dance Summer Top SC

'Summer Top' was earlier, healthier and had more uniform cucumbers. Its vines were larger and healthier. 'Summer Top' was the best cucumber I have ever raised, but 'Summer Dance' also produced very well. Both varieties were very good for fresh eating and pickling. 'Summer Dance' cucumbers tended to have imperfections on their skins.

Summer Dance Summer Top SC

'Summer Dance' produced higher yields but the quality of 'Summer Top' lasted longer after harvest. 'Summer Top' cucumbers were darker.

Summer Dance
Summer Top
Summer Top' cucumbers were long and

slender without many seeds.

Summer Dance Summer Top SC I liked how 'Summer Top' produced.

Summer Dance
Summer Top

Summer Top' had healthire plants that

'Summer Top' had healthier plants that produced cucumbers with excellent taste.

Summer Dance
Summer Top
Summer Top' had a mild, sweet flavor.

Summer Dance Summer Top SW

'Summer Top' tasted better. This trial was managed by a 7-year-old with almost no assistance. These varieties had tremendous yields. They were entered in the County Fair and won Grand Champion. We made giant pickles. It rained hard, so we had to replant some seeds of each variety in spring.

Summer Dance Summer Top Sw SW Summer Top' had better taste and higher

'Summer Top' had better taste and higher yields. I would grow both varieties again. I was still picking both when the snow fell.

Summer Dance Summer Top SW

My plot suffered hail on June 29, but I still got enough to eat. 'Summer Top' produced higher yields.

#### **No Preference**

It was hard to tell these varieties apart. I enjoyed both. They were slow to start but kept producing cucumbers late under extremely dry conditions.

Summer Dance ★★★★★ ⑤
Summer Top ★★★★★ ⑥ NE

I did not see a measurable difference between these varieties.

#### **Conclusions**

Gardeners were impressed with the quality and yields of both varieties. Their fruits were long, thin-skinned, small-seeded and never bitter. Some gardeners felt these were the finest cucumbers they have ever eaten. The vines were healthy and produced lots of cucumbers until frost. Most gardeners preferred 'Summer Dance' for its straight and slender, smooth-skinned fruits. 'Summer Top' started producing a week earlier.

'Summer Top' started producing a week earlier.

# **Cucumber, Pickling**

#### **Varieties**

#### 'Alibi'

50 days. Early yields of fruits for pickling and fresh eating. Disease-resistant vines produce a long time.

#### 'Homemade Pickles'

55 days. Vigorous, disease-resistant vines produce loads of crisp cukes ideally shaped for pickling.

#### **Data**

Gardeners at 45 sites submitted information.

Trait	H Alibi	omemad Pickles	e Same
Germinated best Healthier plants Harvested earlier Higher yields More attractive cuke Tasted better	34% 23 44 31 es 21	25% 26 37 <b>40</b> 31	41% 51 20 29 48 58
Preference Recommend (©) Mean score¹ Median score¹	37 71 7.57 <b>8.00</b>	63 81 7.95 8.00	56

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### Prefer 'Alibi'

Alibi	***	$\odot$			
Homemade Pickles	全全全全全	$\odot$	MN		
'Alibi' germinated better and had better					

'Alibi' germinated better and had better yield. They were both very good varieties.

Alibi	会会会会会	$\odot$	
Homemade Pickles	金金金金金		NE

'Homemade Pickles' cukes got too big too fast. 'Alibi' cukes had a more consistent size.

Alibi	***	$\odot$	
Homemade Pickles	क्रिक्किक्किक		NE

'Alibi' vines were twice the size, healthier looking and more productive. Its cucumbers were ready almost 2 weeks earlier. They were straight and more likely to fit into canning jars.



Alibi

Homemade Pickles

'Alibi' seedlings came up faster and produced earlier.

Alibi	会会会会会	$\odot$	
Homemade Pickles	公公公公会		SE
'Alibi' had more fruits	S.		

Alibi

Alibi © NC

'Alibi' vines were greener and more vigorous. They produced more cucumbers and withstood the drought conditions better. The vines of 'Homemade Pickles' got better into the season. Both varieties were productive; I made over 20 quarts of dills.

Alibi State On the Homemade Pickles NC

'Alibi' produced first and had the best size for packing in quart jars. 'Homemade Pickles' cucumbers were slightly longer. Both tasted very good and were good producers. 'Alibi' stopped producing in mid-August while 'Homemade Pickles' continued producing until early September. Both varieties were watered with drip irrigation and watered every other day during the extremely dry summer.

'Alibi'
germinated
well and
produced a
little earlier in
several
gardens.

# Best pickling cucumber varieties

Top choice Homemade Pickles

# Strong performers

Alibi Calypso Eureka H-19 Little Leaf

### Prefer 'Alibi' (continued)

Alibi

Homemade Pickles

NC

'Alibi' had more uniform germination.

Alibi
Homemade Pickles

SC

'Alibi' performed better. Its vines seemed to take less care and grew more. Its cucumbers were more dual purpose.

Alibi
Homemade Pickles

\*\*SC\*\*

\*\*SC\*\*

\*\*Alibi\*\*

\*\*Alibi\*\*

\*\*SC\*\*

\*\*Alibi\*\*

\*\*Alibi\*\*

\*\*Alibi\*\*

\*\*SC\*\*

\*\*Alibi\*\*

\*

Even though 'Homemade Pickles' won our family's taste test for both fermented and refrigerator pickles, 'Alibi' was nearly twice as productive. 'Alibi' also was very nicely flavored. This was a super fun trial for the whole family! We made fermented pickles for the first time and had tons of pickles all summer.

Alibi

Homemade Pickles

SC

Roth variation were good but I think yields

Both varieties were good, but I think yields were down this year even though I tried to water often. 'Alibi' was a better producer.

Alibi

Homemade Pickles

\*\*O SC

Both varieties were okay. I planted them in containers near a fence to climb.

Alibi
Homemade Pickles

'Alibi' produced a few more cucumbers.

Alibi
Homemade Pickles

'Alibi' grew faster, produced much better

'Alibi' grew faster, produced much better and produced longer.

Alibi
Homemade Pickles

Alibi' had healthier vines and better yields.

Both varieties germinated poorly, but my other cucumbers fared equally bad.

#### **Prefer 'Homemade Pickles'**

Alibi
Homemade Pickles

'Alibi' fizzled out early, but 'Homemade
Pickles' kept producing all season.

Alibi
Homemade Pickles MN
'Homemade Pickles' had good germination and yield. Very good taste and stored well.

Alibi
Homemade Pickles

'Homemade Pickles' was better in all categories. Its vines produced so many cucumbers that I had to give some away.

cucumbers that I had to give some away.

The cucumbers were just the right size for pickling—made excellent pickles.

Alibi
Homemade Pickles

'Homemade Pickles' was better for all traits

'Homemade Pickles' was better for all traits. Great cukes for making pickles.

Alibi
Homemade Pickles

'Homemade Pickles' produced the same
amount using less space in the garden. Its
cukes had an earthier, fresher flavor. 'Alibi'
cucumbers had a lot more seeds. The cukes

Alibi
Homemade Pickles

'Homemade Pickles' makes good pickles.

of both varieties looked almost identical.

Alibi
Homemade Pickles

SE

Both varieties made good pickles, but I expected the cucumbers to be smaller and more uniform in size. 'Homemade Pickles' blossomed first and had more cucumbers. The vines of 'Alibi' did not spread out or have as many cucumbers on it, but it would work for a smaller garden.

Alibi
Homemade Pickles

SE

'Homemade Pickles' cucumbers were very crisp and had very small seeds—almost none. 'Alibi' did not germinate.

'Homemade
Pickles' always
wins our
pickling
cucumber
trials.
Gardeners
were
impressed with
its high yields
and extended
harvest
season.

# Prefer 'Home. Pickles' (continued)

Alibi
Homemade Pickles

\*\*SE\*\*

'Homemade Pickles' germinated better.

Alibi
Homemade Pickles

SE

These varieties were very similar.

'Homemade Pickles' cukes were straighter. 'Alibi' cukes curled more and got bigger more quickly. Its large cukes were more seedy compared to the large cukes of 'Homemade Pickles'.

Alibi
Homemade Pickles

'Homemade Pickles' was better for pickling.

Alibi

Homemade Pickles

'Homemade Pickles' plants remained healthier.

Alibi
Homemade Pickles

'Homemade Pickles' had healthier plants
and produced more cukes.

Alibi
Homemade Pickles

'Homemade Pickles' is better all around.

Alibi
Homemade Pickles
SC
Homemade Pickles' had higher yields. Lots of rain made great cucumbers.

Alibi
Homemade Pickles

'Homemade Pickles' outdid 'Alibi' for all traits.

Alibi
Homemade Pickles SC

'Homemade Pickles' had good yields; great

'Homemade Pickles' had good yields; great for pickles. I had deer issues when first sown. I resowed and both produced well. Both varieties were very good. I do a lot of canning. 'Homemade Pickles' just seemed to always have the better shape and size. We are still enjoying the cukes, but mostly eat them sliced and raw.

Both varieties germinated well and had healthy plants. 'Homemade Pickles' matured a earlier and produced slightly more cukes.

Alibi
Homemade Pickles

Both varieties tasted great.

Alibi © NW

'Homemade Pickles' had a little better taste.

Both varieties had excellent germination; both had some hail damage. 'Homemade Pickles' had solid and crisp cucumbers.

Alibi © SW

'Alibi' was okay, but easily outshone by 'Homemade Pickles'. 'Homemade Pickles' fruits had a more classic look, while 'Alibi' fruits were bulbous and darker.

Alibi
Homemade Pickles

'SD

'Homemade Pickles' withstood the hail
better and was more productive. Only four
'Alibi' vines survived but they were healthy.

#### **Conclusions**

'Homemade Pickles' always wins our pickling cucumber trials. Gardeners were impressed with its high yields and its extended harvest season. Its cukes were crisp, small-seeded and blocky—perfect for pickling. 'Alibi' germinated well and produced a little earlier at several sites. Vines of both varieties were healthy. Gardeners who had a taste preference most likely chose 'Homemade Pickles'.

'Homemade Pickles' cucumbers were crisp, small-seeded, and blocky perfect for pickling.

# **Cucumber, Slicing**

### **Varieties**

#### 'General Lee'

66 days. Very productive. Disease-resistant vines set quality slicers even under adverse conditions.

#### 'Talladega'

60 days. Smooth, 8-inch fruits are dark green. Disease-resistant vines produce heavy yields.

#### **Data**

Gardeners at 27 sites submitted information.

General				
Trait	Lee	Talladega	Same	
Germinated best	19%	38%	43%	
Healthier plants	14	23	64	
Harvested earlier	29	48	24	
Higher yields	27	41	32	
More attractive cuk	es <b>36</b>	32	32	
Tasted better	19	29	52	
Preference	48	52		
Recommend (©)	64	77		
Mean score <sup>1</sup>	7.64	7.59		
Median score <sup>1</sup>	8.00	8.00		

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'General Lee'

General Lee Talladega	<del>食食食食</del> 公 食食食食公	_	SE
(0 11 11	1.1	,	

'General Lee' had larger fruits and produced higher yields.

General Lee	常常常常公	$\odot$	
Talladega	ಭಿಭಿಭಿಭಿಗಿ		SE
"Talladega" seeds	didn't come 11	n.	

Talladega seeds didn't come up.

General Lee	会会会会会	$\odot$	
Talladega	会会会会会	$\odot$	SE

These are good varieties. Both varieties produced good tasting cukes. I sowed 12 seeds of each and harvested 150 cukes from each variety. They are still producing on September 20.



General Lee	***	$\odot$	
Talladega	全全全全全		SE

My husband insisted they tasted better even though I could tell no difference.

General Lee	会会会会会	$\odot$	
Talladega	****	$\odot$	SE

'General Lee' had a better taste; Talladega seemed to have a little bitterness.

General Lee	******	$\odot$	
Talladega	ಭಭಭಭಭ		SE
D - (1	T	c	(C++++1++1++

Both were disease prone. I prefer 'Straight Eight'.

General Lee	金金金金金	$\odot$	
Talladega	会会会会会	$\odot$	SE

No comments.

General Lee	会会会会会	$\odot$	
Talladega	会会会会会	$\odot$	NC

'General Lee' cucumbers were better tasting—not as bitter. Neither variety yielded well this summer.

General Lee		
Talladega		SC
'General Lee' pla	nts were healthier.	

General Lee ★★★★ © NW

'General Lee' showed superior production.

Both varieties had healthy vines and produced an abundance of of quality cucumbers.

# Best slicing cucumber varieties

Top choice General Lee

# Strong performers

Dasher II Raider Stonewall Straight Eight Talladega

# Prefer 'Talladega'

General Lee
Talladega

©
NE

'Talladega' cucumbers were skinnier with fewer seeds. It was a really great cucumber. We had so many we had to give them away.

General Lee
Talladega

SE

Growing cucumbers in recent years has been a hit and miss proposition for us. Pollination issues limit good yields to every third year or so. That said, we had enough cucumbers between the two varieties to satisfy our needs and still share a few. Both varieties handled the heat well and their cucumbers had small seeds if harvested before they were large. 'Talladega' was a better producer and had better flavor.

'Talladega' was excellent variety. It has a beautiful, flawless cucumber for slicing. Great tasting and tender skins.

General Lee
Talladega

©
NC

'Talladega' plants looked better. Both are good varieties.

General Lee
Talladega

SC

'Talladega' produced higher yields.

General Lee

Talladega

SC

Higher yield, quicker yield, consistent size, small seeds, and plant vigor gave a slight nod to 'Talladega'. However, 'Talladega' was "soft" and not firm at times whereas 'General Lee' seemed to do better late in the season. 'General Lee' had a slightly bitter, more flavorful taste; whereas 'Talladega' was very good but blander.

General Lee
Talladega

SC

Both will grow more cucumbers then a family can eat. Both tasted good and equally well. The skin of 'Talladega' was a little smoother; less prickly spots.

General Lee ★★★★ ☺
Talladega ★★★★ ☺ SC

I didn't notice much difference between these two varieties. "Talladega' may have yielded first, but 'General Lee' caught up quickly and produced just as well. "Talladega' was slightly less bitter in taste.

'Talladega' had better taste.

General Lee
Talladega

©
SW

The plants of both varieties were beautiful. I picked 8–10 cucumbers every other day. Almost always the same amount from each variety. Their cucumbers had a nice shape and color. "Talladega" cucumbers had more flavor. 'General Lee' cucumbers tasted a little more "green" and were smaller.

I grew both varieties on trellises and they thrived! Several of the 'General Lee' seedlings died shortly after emergence. This was a fun study, as it is the first time I have had success growing cukes on a trellis.

#### **No Preference**

General Lee
Talladega

SC

I couldn't tell any difference between the varieties. Their cucumbers had a mild flavor and were well liked by everybody.

#### **Conclusions**

Both varieties had healthy vines and produced an abundance of cucumbers. "Talladega' produced the first cucumbers and produced higher yields in more gardens. A slight majority of gardeners preferred 'Talladega' and more gardeners recommended it than recommended 'General Lee'. Gardeners liked the fruit quality of both varieties and there was no clear distinction in taste qualities.

'Talladega'
produced the
first
cucumbers and
produced
higher yields in
more gardens.

# Lettuce, Butterhead

### **Varieties**

#### 'Buttercrunch'

50 days. Very popular and reliable variety. Dark green outer leaves with creamy heart. Slow to bolt.

#### 'Mirlo'

52 days. Large, bright green heads are densely packed with tender, buttery leaves. Resists diseases.

#### **Data**

Gardeners at 34 sites submitted information.

	Butter-		
Trait	crunch	Mirlo	Same
Germinated best	41%	31%	28%
Healthier plants	33	19	48
Harvested earlier	44	30	26
Resisted bolting be	tter <b>40</b>	24	36
Higher yields	39	36	25
More attractive	48	22	30
Tasted better	63	22	15
Preference	65	35	
Recommend (©)	84	65	
Mean score <sup>1</sup>	7.73	6.90	
Median score <sup>1</sup>	8.00	7.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'Buttercrunch'

Buttercrunch	会会会会会	$\odot$	
Mirlo	会会会会会	$\odot$	MN

'Buttercrunch' had large leaves, firm stalks, and was great for salads and sandwiches. It produced many times higher yields than 'Mirlo'. 'Mirlo' tasted sweeter. Neither variety bolted into September.

Buttercrunch	****	$\odot$	
Mirlo	The state of the s		SE

'Buttercrunch' had very nice plants and grew large. It was good tasting. 'Mirlo' did not germinate as well and got a late start.



Buttercrunch	会会会会会	$\odot$	
Mirlo	全个个个	$\odot$	SE

Buttercrunch' resisted bolting better, produced higher yields and tasted better.

Buttercrunch	****	$\odot$	
Mirlo	全全全全公公	$\odot$	SE

'Buttercrunch' tasted sweeter. Its leaves were softer, more tender.

Buttercrunch	全全全全会	$\odot$	
Mirlo	公公会会会		SE

'Buttercrunch' was the all-around winner—great taste and performance. I will grow it in the future.

Buttercrunch	会会会会会	$\odot$	
Mirlo	the state of the	$\odot$	NC

'Buttercrunch' had a better appearance and taste.

Buttercrunch © NC

Buttercrunch' germinated better and produced first. It bolted much more at the end of the season (but we had a very dry season). I liked its flavor better—delicious! 'Mirlo' was an interesting lettuce. Both varieties looked very healthy, were very productive and looked attractive.

'Buttercrunch' had great taste.

'Buttercrunch' is a proven winner. It grew faster and resisted bolting better. Gardeners preferred its flavor and crunch.

Best green butterhead lettuce variety

SC

Top choice
Buttercrunch

### **Prefer 'Buttercrunch'** (continued)

Buttercrunch SC SC

There were lots of weeds in my new garden and I was highly impressed with the germination of 'Buttercrunch' (90% compared to 25% for 'Mirlo'). 'Buttercrunch' had big, thick, dark green leaves and produced twice as much by mid-June. 'Mirlo' leaves were lighter green, thinner and had a more bitter aftertaste. It produced some beautiful, perfect heads albeit later.

I prefer the color of 'Buttercrunch'.

I had to replant 'Mirlo' as it did not come up at all the first time. 'Buttercrunch' tasted better, but more bitter than I would like compared to the delicious-ness of last year's trial. Might just be the year as it got so hot.

Buttercrunch © SC

Buttercrunch' was a nice plant. Not a great producer but did ok. I'm not sure which variety tasted better—deer approved of both.

'Buttercrunch' was so delicious. Tasted buttery and its leaves were pretty. Fantastic.

Buttercrunch © NW

Buttercrunch' tasted better and lasted longer in the garden. Fresh lettuce is wonderful.

Buttercrunch © NW

Both were good, but 'Buttercrunch' tasted better.

I really liked both equally well. Both are great lettuce varieties that withstand heat, direct sun and uneven watering (huge amounts of rain). Both have great flavor and texture, making for great salads. 'Buttercrunch' was slightly slower to bolt so I was able to harvest more from those plants.

Buttercrunch
Mirlo

\*\*Buttercrunch\*\* had better yields.\*\*

\*\*Buttercrunch\*\* had better yields.\*\*

'Buttercrunch' was better for germination, taste and hardiness.

Buttercrunch Mirlo SW

I loved the taste of 'Buttercrunch'.

#### **Prefer 'Mirlo'**

Buttercrunch
Mirlo

NE

I did not like the strong taste of 'Buttercrunch'. 'Mirlo' had a better, milder flavor and was more tender. 'Mirlo' plants grew faster, were fuller and had more leaves.

Buttercrunch Mirlo © NE

Buttercrunch' did not germinate for me. Neither lettuce enjoyed being planted in a "no till" environment even when planted in rows with no litter over the bare soil. In general, butterhead lettuce is super cute, so easy to harvest, and resists flea beetles better than my leaf lettuce.

I liked the texture of 'Mirlo' better. Both varieties turned bitter before they were sizeable enough for harvest.

'Mirlo' had lighter green leaves. It grew well but showed no advantage over 'Buttercrunch'.

### Prefer 'Mirlo' (continued)

Buttercrunch © NC

'Mirlo' produced first. Both varieties tasted good.

'Mirlo' tasted better. Yields of both varieties were good. I would do periodic plantings to have a longer supply.

Buttercrunch Mirlo SC

'Mirlo' had larger heads, larger leaves and stayed firmer in the refrigerator.

Buttercrunch SC SC

Both varieties were very good. 'Mirlo' was healthier and ready to harvest earlier.

I prefer the lighter leaf color of 'Mirlo'. Neither variety germinated well. Neither variety bolted. Both were good tasting.

Buttercrunch
Mirlo

SW

'Mirlo' was nice looking, tender and flavorful. Both varieties were good.

Buttercrunch Swirlo SW

'Mirlo' produced weeks longer than 'Buttercrunch'. It had a lighter, sweeter taste. The leaves of 'Buttercrunch' were very pretty but had a slightly bitter taste.

#### **Conclusions**

Buttercrunch' is a proven performer in North Dakota. It impressed our team of gardeners again in 2018. Buttercrunch' germinated well, grew faster and resisted bolting better. Gardeners preferred its flavor and crunch. 'Mirlo' leaves were lighter green. It grew well but showed no advantage over Buttercrunch'. Both varieties were healthy and productive, even under dry conditions.

Both varieties were healthy and productive, even under dry conditions.

# **Key to Site Reports**

(reports are presented from east to west)

Recommendation to
other gardeners
(1 to 10)
(yes or no)

Location

Variety A

Variety B

NC Comments

'Variety A' germinated better and produced the first harvest. We loved its taste. 'Variety B' produced higher yields but was tasteless.

NW NC NE

SW SC SE

MN = Minnesota

NE = Northeast SE = Southeast

NC = North Central

SC = South Central NW = Northwest

SW = Southwest

MB = Manitoba

SD = South Dakota

MT = Montana

# Lettuce, Leaf

#### **Varieties**

#### 'Bergam's Green'

51 days. Dark green, crumply leaves. Dense, heads with good flavor. Slow to bolt.

#### 'Salad Bowl'

46 days. Long-time favorite known for its lime green, frilly, deeply cut leaves and its tolerance to heat.

#### **Data**

Gardeners at 17 sites submitted information.

Trait	Bergam's Green		Same
Germinated best	85%	15%	0%
Healthier plants	77	15	8
Harvested earlier	77	15	8
Resisted bolting be	etter 69	23	8
Higher yields	85	15	0
More attractive	85	15	0
Tasted better	62	31	8
Preference	77	23	
Recommend (©)	85	23	
Mean score <sup>1</sup>	7.54	3.85	
Median score <sup>1</sup>	8.00	2.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Bergam's Green'

I was able to harvest 'Bergam's Green' three times before it bolted. 'Salad Bowl' germination was very poor and what did germinate bolted right away.

Bergam's Green Salad Bowl SE

Salad Bowl' was harder to pick and clean.

Bergam's Green Salad Bowl SE

I had many cuttings of 'Bergam's Green'. Its leaves were very crisp and beautiful, but a little bitter. 'Salad Bowl' did not germinate or grow well.



Bergam's Green Salad Bowl **★★★☆☆** ⑤ **SE** 

Out of the first round sown on May 11, only a 20% of 'Salad Bowl' germinated while all of 'Bergam's Green' came up. The second round also had very few of the 'Salad Bowl' seeds germinate.

Bergam's Green Salad Bowl SE

'Bergam's Green' was best overall. 'Salad

Bowl' tasted better (less bitter) but produced only one plant (not sure why).

'Bergman's Green' lasted very long in the season before tasting bitter. It tasted better and lasted longer.

Bergam's Green Salad Bowl SC SC

NC

Bergam's Green' germinated by June 16. 'Salad Bowl' never produced more than three plants (and they bolted earlier). I was surprised at how poorly 'Salad Bowl' did, especially in the same elevated bed. I purposely planted these varieties in June after my other non-test varieties because I wanted to see how a later crop would produce with the idea of extending my leaf lettuce later into the summer. I still have 'Bergam's Green' in mid-September and the three 'Salad Bowl' plants were pulled.

'Bergam's
Green'
germinated
better, was
healthier and
produced
higher yields. It
resisted
bolting through
much of the
summer.

# Best green leaf lettuce varieties

Top choice
Bergam's
Green

# Strong performers

Tropicana Deer Tongue Royal Oakleaf Slobolt

# Prefer 'Bergam's G.' (continued)

Bergam's Green' did well and produced sizeable plants from almost all the seeds planted. 'Salad Bowl' did not come up at all for me. I even planted it again about 3 weeks later and it didn't take then either. These two varieties where in the same raised bed in different sections.

Bergam's Green Salad Bowl ©

Bergam's Green' had great germination. Only four seeds of 'Salad Bowl' germinated. 'Bergam's Green' was a top winner in all categories.

Loved everything about 'Bergam's Green', especially its large leaves. It germinated better, was healthier and produced better. It resisted bolting until August, much longer than 'Salad Bowl'. 'Salad Bowl' leaves were pretty with lacy edges.

#### **Prefer 'Salad Bowl'**

Bergam's Green Salad Bowl SE

'Salad Bowl' produced much better.

Bergam's Green Salad Bowl © NC

'Salad Bowl' had a milder taste which I prefer. Both varieties were very good.

Bergam's Green
Salad Bowl
No comments.

ដោះជាជាជាជា ★★★ជាជា © NC

#### **Conclusions**

SC

Bergam's Green' excelled in all traits. It germinated better, was healthier and produced higher yields. It resisted bolting through much of the summer and later than 'Salad Bowl'. Its dark green, crumply leaves were attractive and tasty. 'Salad Bowl' did not germinate well in this trial. We are not sure if this was due to the quality of the seed itself or the genetics of the variety.

'Salad Bowl'
did not
germinate well
under the dry
conditions in
the state.

# Key to Site Reports (reports are presented from east to west)

Ratings (yes or no)

(1 to 10) ↓ Location

Variety A © NC Comments

Recommendation to

'Variety A' germinated better and produced the first harvest. We loved its taste. 'Variety B' produced higher yields but was tasteless.

NW NC NE

SW SC SE

MN = Minnesota NE = Northeast

SE = Southeast

NC = North Central SC = South Central

NW = Northwest

SW = Southwest

MB = Manitoba SD = South Dakota

MT = Montana

# Lettuce, Leaf/Romaine

#### **Varieties**

#### 'Concept'

51 days. Leaves are arranged in a whorl, giving it an open, vase-like shape. Thick, flavorful leaves.

#### 'Fusion'

55 days. A cross between leaf and romaine types. Wavy, dark green leaves form a dense, upright head.

#### Data

Gardeners at 42 sites submitted information.

Trait	Concept	Fusion	Same
Germinated best	5%	<b>50</b> %	45%
Healthier plants	8	22	69
Harvested earlier	16	46	38
Resisted bolting be	tter 11	60	29
Higher yields	17	49	34
More attractive	17	42	42
Tasted better	22	39	39
Preference	24	76	
Recommend (©)	59	86	
Mean score <sup>1</sup>	6.92	8.46	
Median score <sup>1</sup>	7.00	9.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### **Prefer 'Concept'**

Concept	会会会会会	$\odot$	
Fusion	会会会会会	$\odot$	NE

These were similar. 'Concept' tasted better. 'Fusion' had darker green leaves with ruffled edges.

Concept	会会会会会	$\odot$	
Fusion	金金金金金		NC

I liked both varieties, but 'Concept' stayed more compact as it matured. It was more like romaine.

Concept	会会会会会	$\odot$	
Fusion	会会会会会		NC

'Concept' had nice tight bunches whereas 'Fusion' was more open and looser.



Concept	MMMMM	$\bigcirc$	
Fusion	<b>☆☆☆☆☆</b>	$\odot$	NC
'Concept' was firs	t to yield.		

Concept	*****	
Fusion	tatatatata	NC

These varieties are the worst I've grown. Neither showed much vigor as seedlings. 'Concept' looked a bit healthier and was more upright for harvesting. It bolted 1 week later, produced 40% more, looked more attractive, and tasted better—a very leafy taste for lettuce. 'Fusion' was ready to harvest earlier but was slower to regrow.

Concept	公会会会会	$\odot$	
Fusion	会会会会会	$\odot$	SC

Both varieties grew well in my container garden. They tasted great.

Concept	自由自由自	$\odot$	
Fusion	会会会会会	$\odot$	NW

I love this leafy romaine lettuce. 'Concept' was a sweeter variety, and everyone who sampled both varieties preferred it for flavor. Its downfall was it bolted much sooner than 'Fusion'. Both varieties kept very well in the fridge. At the beginning of August, I put some in my fridge, then went on vacation for 12 days and never thought about the lettuce again until the first part of September. It was just as crisp and good tasting as when I first put it in the fridge. I was very impressed with both varieties. I'm definitely going to grow both varieties next year. Romaine lettuce is firmer than other varieties of leaf lettuce, and I like that.

Both varieties produced healthy plants and crisp, delicious lettuce.

Best green romaine lettuce varieties

Top choice Fusion

Strong performers

Crisp Mint Green Forest Starhawk

# Prefer 'Concept' (continued)

'Concept' was crisper and had slightly larger heads. Both varieties got bitter when temperatures got hot.

Concept © SW

Both were so much alike. 'Concept' tasted better and yielded more.

### **Prefer 'Fusion'**

Both varieties produced healthy plants and delicious lettuce. 'Fusion' was slower to bolt so I would choose it to plant in the future.

Both varieties germinated well, matured at the same time, and produced good yields. 'Fusion' germinated slightly better and resisted bolting better. Its ruffled edges were attractive. It was the unanimous choice in our family's taste test. It had better texture and was crunchier. I want to grow this variety again.

Concept © NE

'Fusion' had better taste and texture.

'Fusion' grew taller; 'Concept' grew wider. Both matured at the same time, but 'Fusion' was longer lasting with higher yields. Both looked delicious even with different-shaped leaves. 'Concept' tasted slightly bitter with an aftertaste I did not care for.

'Fusion' was by far a better producer. 'Concept' got bitter faster.

Both varieties germinated poorly, but it was hot and dry.

'Fusion' germinated better, resisted bolting better, was ready to harvest earlier and produced more lettuce.

Concept Susion S

Concept © NC

It seemed like every 'Fusion' seed germinated. It was very slow to bolt, and we harvested until August. Its heads were compact and had more flavor. The health of both varieties was excellent, and we had romaine ready in 6 weeks. 'Concept' had a larger head and was more tender.

Concept © NC

Both varieties were good; however, 'Fusion' produced a little longer. I liked its appearance better. We had poorer germination compared to other years.

Both varieties were very poor for me this year (may be the high temperatures early in the growth).

Concept ★★★★☆ ☺ SC

'Fusion' had darker green leaves and smoother leaves. It produced better overall.

Concept © SC

I have never raised two varieties so similar in taste, yield and looks. I covered them with a netting and both produced excellent leaves even when temperatures reached 100 degrees. 'Fusion' germinated at 75% compared to 57% for "Concept'. These were the best varieties I have raised.

'Fusion' grew quickly and produced good yields. It showed amazing resistance to bolting. Its performance was strong and consistent across sites.

# **Prefer 'Fusion'** (continued)

A A A A A Concept SC Fusion

I will grow 'Fusion' next year. It had superior taste, looks, yield, and resistance to bolting. Both varieties germinated well.

Concept TOTAL TOTAL \*\*\* SC Fusion

'Fusion' stayed firm in the refrigerator.

Concept Fusion NW

These were the best lettuce varieties I have ever had. Both were wonderful. 'Fusion' was just a little crisper.

Concept \*\*\*\* 金金金金金 Fusion NW

'Fusion' was a very high producer. It had good taste. I shared a lot of it with my friends and everyone loved it. 'Concept' had a nicer looking, rounded leaf that fit just right on a sandwich. It was very tasty but did not produce as well.

Concept 会会会会会 NW Fusion

'Fusion' was better. It stayed mild tasting longer.

Concept Fusion NW

'Fusion' is best all around.

Concept Fusion SW No comments.

Concept Fusion SW

I was impressed with 'Fusion' and its amazing resistance to bolting. I was able to get more than one cutting of it. It had great flavor all summer. 'Concept' germinated better in my first planting and 'Fusion' germinated better in the succession plantings.

Concept SW Fusion

I preferred the taste of 'Fusion'. It was a more tender lettuce. Both varieties kept very well in the fridge after washed.

Concept Fusion **全全全全** ⑤ SW

I liked the dark green color of 'Fusion' and its resistance to bolting, but 'Concept' was a close second. Both varieties are superior to Parris Island' romaine.

Concept SW Fusion

'Fusion' looked more appealing. It had nice, scalloped edges to the leaves.

Concept Fusion SW

'Fusion' stayed crisper after cutting.

**全全全全** (2) Concept **\*\*\*\*** © Fusion MB

'Fusion' had 20% greater germination. Its heads were fuller and tighter. They were usable in their entirety and did not become leggy. 'Concept' matured a few days earlier and it regrew from the stalk after harvest.

Concept Fusion SD

'Fusion' looked nicer, had more flavor and was more tender. It grew back faster after the deer ate both varieties and it came back after I cut it off.

Concept MT Fusion

'Fusion' performed better in all traits.

#### **Conclusions**

Both varieties grew well but 'Fusion' was extraordinary. It germinated well, grew quickly and produced good yields. It showed amazing resistance to bolting. Gardeners enjoyed the looks, crunch and flavor of its ruffled leaves. Its performance was strong and consistent across sites. 'Concept' was a good performer and showed no weaknesses but showed no advantage over 'Fusion'.

**Gardeners** enjoyed the looks, crunch and flavor of 'Fusion' and its ruffled leaves.

# **Melon, Ananas**

### **Varieties**

#### 'Dove'

70 days. Early and easy to grow. Ivory-color flesh is sweet. Golden skin with light netting.

#### 'San Juan'

77 days. Aromatic flesh. Disease-resistant vines set good yields. Fruits slip off vines.

#### **Data**

Gardeners at 7 sites submitted information.

Trait	Dove	S. Juan	Same
Germinated best	29%	14%	<b>57</b> %
Healthier plants	43	29	29
Matured earlier	29	71	0
Higher yields	29	29	43
More attractive fruit	s 0	29	71
Tasted better	17	33	50
Preference	29	71	
Recommend (©)	86	57	
Mean score <sup>1</sup> Median score <sup>1</sup>	6.71 <b>8.00</b>	7.00 8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'Dove'

Dove	<b>未完全</b> 自	$\odot$	
San Juan	<b>食食食</b> 給給	$\odot$	SC

Dove' melons were smaller but they seemed to be sweeter. 'Dove' matured earlier and there were a few 'San Juan' melons that did not finish ripening before frost.

Dove	<b>គំគំ</b> ជាជាជ	$\odot$	
San Juan	<b>វ</b> ាជាជាជាជា		SW

I prefer 'Dove' because it ripened earlier. 'San Juan' did not produce any ripe melons before the frost. 'Dove' melons had a very sweet, pleasant flavor but were small.

#### Prefer 'San Juan'

Dove	<b>自由自由</b> 企	$\odot$	
San Juan	<b>未未未</b> 有	$\odot$	MN

Both performed well. Their melons were sweet and slipped off the vine when ripe.



San Juan	***	$\odot$	SE
The first 'San Juan	n' melons ripe	ened o	n
August 12, 4 days	before Dove	'. 'San	Juan'
produced 22 melo	ons (105 poun	ds); ar	nd
'Dove' produced	29 melons (12	20 pou	nds). A
few 'Dove' melon	ıs split on Aug	gust 28	; none
for 'San Juan'. An	anas melons t	aste g	reat.

Dove

Dove	素素素素的	$\odot$	
San Juan	***	$\odot$	NC

Had never grew this melon before. We ate it for breakfast, dinner and supper. Delicious! 'San Juan' was earlier and produced more. 'San Juan' leaves curled and yellowed slightly.

Dove	<b>ដ</b> ាជាជាជាជា	
San Juan	*********	NC
	_	

'Dove' plants and melons were very small.



'San Juan' vines seemed less tolerant to heat, but both varieties struggled. Both were good producers even with the high temps and lack of rain. Melons of the two varieties were similar in size and appearance. The flesh of 'San Juan' melons was firmer and sweeter.

#### **Conclusions**

Gardeners in this trial enjoyed the flavor of Ananas melons. Most preferred 'San Juan'. Its melons were slightly larger, yet its yields were less consistent from site to site. 'Dove' was a more reliable producer and was recommended by more gardeners.

Gardeners
enjoyed the
flavor of these
melons. Most
preferred 'San
Juan' for its
earliness and
larger fruit
size. 'Dove'
was a more
reliable
producer, but
its melons
were small.

Best Ananas melon variety

**Top choice**San Juan

# Melon, Early Cantaloupe

#### **Varieties**

#### 'Goddess'

68 days. Early ripening, high quality melon. Firm, flavorful flesh. Heavy yields of 4pound melons.

#### 'Minnesota Midget'

70 days. Compact vines produce 3.5-inchwide melons. Golden flesh and unique flavor.

Gardeners at 25 sites submitted information.

Trait	Goddess	Minn. Midget	Same
Germinated best	10%	48%	43%
Healthier plants	24	29	48
Matured earlier	53	42	5
Higher yields	32	53	16
More attractive fruit	ts <b>47</b>	32	21
Tasted better	53	29	18
Preference	63	37	
Recommend (©)	68	47	
Mean score <sup>1</sup>	6.74	6.53	
Median score <sup>1</sup>	8.00	7.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### Prefer 'Goddess'

Goddess Minnesota Midget thinin ⊗ NE

'Goddess' was overall the better variety. Its fruits were very delicious. 'Minnesota Midget' didn't seem to mature. They got to the size they should and just rotted away. There was some rot with 'Goddess' too.

Goddess Minnesota Midget SE

'Goddess' produced the most and earliest melons. Its melons tasted wonderful.

Goddess ##### ⊗ NC Minnesota Midget I harvested 6 large 'Goddess' melons and 12

small 'Minnesota Midget' melons in my rain gutter garden.



Goddess Minnesota Midget \*\*\*\*\*\*\* © NC

'Goddess' melons were twice the size and tasted good. 'Minnesota Midget' germinated better, had a more compact plant, produced smaller melons and ripened earlier. Its melons were sweeter and tasted better.

Goddess SC. Minnesota Midget Both were delicious. I prefer the size of 'Goddess'.

Goddess Minnesota Midget



⊕ SC

Nearly every seed of 'Minnesota Midget' germinated while only three of 'Goddess' germinated! 'Minnesota Midget' obviously produced more cantaloupes but the three 'Goddess' plants produced 12 big cantaloupes. Both varieties were full of flavor and very sweet. I was able to produce so many cantaloupes that I had plenty to give away!

Goddess Minnesota Midget



SC.

'Goddess' produced a melon that was very similar to a store-bought variety and very delicious. Its melons ripened much earlier and had better texture and taste. I will definitely plant 'Goddess' again. 'Minnesota Midget' was deceiving on when it was ready to harvest. Its rind was still green when the melon should have been picked, and by the time the green was gone, the flesh was overripe.

'Goddess' ripened first. Its melons were larger, more attractive and tasted better.

# **Best** cantaloupe varieties

Top choice Aphrodite

### Strong performers

Athena Goddess Solstice Superstar

### **Prefer 'Goddess'** (continued)

Goddess
Minnesota Midget

\*\*This is a second of the second

'Goddess' had more and better melons.

Goddess
Minnesota Midget

\*\*SC\*\*

\*\*SC

There was no competition in the flavor category. Our 'Minnesota Midget' actually went to the chickens after we tasted how incredible 'Goddess' was. I have always grown 'Minnesota Midget' and loved it, so it was a real shock to taste how incredible 'Goddess' was side by side. 'Goddess' is a new family favorite for us.

Goddess
Minnesota Midget

\*\*SW\*\*

Neither variety really wowed us. Both varieties grew spindly plants with one fruit per plant. Fruits were too small to consume by harvest. 'Goddess' produced more but neither variety produced a ripe melon.

'Goddess' produced larger, but fewer fruits.

Goddess © SW

'Goddess' has nice flesh, smelled good and tasted okay. 'Minnesota Midget' are tiny melons that do not taste very good. I am still looking for a better tasting melon.

# Prefer 'Minnesota Midget'

This is the first time I ever planted cantaloupe and they did great. 'Minnesota Midget' had great taste.

Goddess
Minnesota Midget

Minnesota Midget

ME

'Minnesota Midget' cantaloupes matured early and had great taste. 'Goddess' was late in flowering, didn't handle drought well, and produced so late in season that its melons were damaged by frost. I would like to give it another chance. Goddess
Minnesota Midget

\*\*THERE\*\* © SE

'Minnesota Midget' was a very good melon—nice and sweet.

Goddess © NC

Minnesota Midget' had more melons. They were small but had good flavor; not as sweet as 'Goddess'. 'Goddess' melons were brown around the stem and poorly shaped. Each variety produced 15 small melons. This is the first time ever I have had my homegrown cantaloupe—small but tasty.

Goddess
Minnesota Midget

\*\*This is a second of the control of the

Did not care for either variety. They did not germinate well. 'Minnesota Midget' tasted better.

Goddess
Minnesota Midget

\*\*THE THE TOTAL TOTAL

Almost all 'Minnesota Midget' seeds germinated while some 'Goddess' hills had no plants. We lost count of the 'Minnesota Midget' melons after we harvested 23 in the first 2 weeks. 'Goddess' melons look nicer and are much bigger than 'Minnesota Midget'. 'Minnesota Midget' melons were consistently sweet with an excellent cantaloupe flavor while 'Goddess' melons tasted overripe with an off-flavor no matter when we picked it. 'Minnesota Midget' melons will fall off vine when ripe (and aren't overripe) and a perfect size for 1-2 people. They produced over a longer period of time, so all the melons did not come at once. We love these melons!

Goddess
Minnesota Midget

'Minnesota Midget' had more flavor.

#### **Conclusions**

Most gardeners preferred 'Goddess'. Its melons were larger, more attractive and tasted better. 'Goddess' ripened earlier. 'Minnesota Midget' germinated well. Its vines were compact but produced many more melons. These melons were much smaller in size.

'Minnesota Midget' vines were compact and produced good yields of small melons.

# Melon, Main Season Cantaloupe

#### **Varieties**

### 'Aphrodite'

72 days. Melons are 6–8 pounds and ripen early. Firm, salmon flesh is thick and sweet. Good yields.

#### 'Athena'

75 days. Melons are 5–6 pounds with thick, orange flesh. Very popular in the north.

#### **Data**

Gardeners at 10 sites submitted information.

Trait	Aphrod.	Athena	Same
Germinated best	25%	0%	75%
Healthier plants	13	13	75
Matured earlier	57	43	0
Higher yields	14	57	29
More attractive fruit	s 29	0	71
Tasted better	29	43	29
Preference	57	43	
Recommend (©)	71	57	
Mean score <sup>1</sup>	7.86	7.57	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## Prefer 'Aphrodite'

Aphrodite	****	$\odot$	
Athena	<b>តាត់</b> ជាជាជាជា		SE

'Aphrodite' melons were bigger and had deeper meat. People raved over its flavor. Many said it was the best cantaloupe ever!

Aphrodite	<b>自由自由</b> 自	$\odot$	
Athena	自由自由自	$\odot$	SE

Both varieties were healthy and productive. Eight seeds of each yielded roughly 36 fruits in total. 'Aphrodite' produced more and larger fruit, some as large as volleyballs.

Aphrodite	<b>食食食</b> 食食		
Athena	<b>គំគំ</b> ជាជាជា	$\odot$	SC

'Aphrodite' grew faster and set fruit earlier. I liked the taste of 'Aphrodite' and my wife liked 'Athena'. Frost came later this year, but most fruits did not mature.



Aphrodite	***	$\odot$	
Athena	<b>自由自由</b> 自		SC
'Aphrodite' had be	etter flavor.		

#### Prefer 'Athena'

Aphrodite	****	$\odot$	
Athena	****	$\odot$	NC

Both varieties produced many melons that tasted very sweet. 'Athena' was extremely sweet. The crops were grown using drip irrigation. I sold both varieties at the Farmers Market and had many repeat customers.



'Athena' melons were delicious. Ripened first and produced many.

'Athena' tasted slightly better and produced larger melons. Both varieties were very good. North Dakota gardeners would be happy with the results of growing either of these varieties.

#### **Conclusions**

Both varieties were healthy, productive and produced delicious fruits. For the second straight year, most gardeners preferred 'Aphrodite'. 'Aphrodite' ripened earlier and produced larger melons. 'Athena' produced higher yields, and its melons tasted better to more gardeners.

'Aphrodite' ripened earlier and produced larger melons. 'Athena' produced higher yields, and its melons tasted better to more gardeners.

# Best cantaloupe varieties

**Top choice** Aphrodite

# Strong performers

Athena Goddess Solstice Superstar

# Pea, Shell

#### **Varieties**

#### 'Bountiful Ben'

66 days. Award winner. Selected for its abundance of blossoms and its yield potential. Grows 22 inches.

#### 'Lincoln'

65 days. Good for freezing. Pods are filled with 8–10 tender peas. Excellent flavor. Height 28 inches.

#### Data

Gardeners at 42 sites submitted information.

Bountiful			
Trait	Ben	Lincoln	Same
Germinated best	5%	<b>50</b> %	45%
Healthier plants	14	51	35
Matured earlier	33	42	25
Higher yields	14	77	9
More attractive pods	12	65	24
Tasted better	15	53	32
Preference	15	85	
Recommend (©)	37	94	
Mean score <sup>1</sup>	5.37	8.29	
Median score <sup>1</sup>	5.00	9.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### Prefer 'Bountiful Ben'

'Bountiful Ben' produced a higher yield, didn't get overmature too fast, and was really good tasting. Both varieties did well and either variety would be a good choice.

Bountiful Ben' grew taller when I had them trellised. It produced longer pods. Both were good varieties and I would grow them again.

Bountiful Ben' germinated sooner. Its plants withstood the heat better.



Bountiful Ben Lincoln



Bountiful Ben' had more tendrils and clung to the fence better than 'Lincoln'. It tasted good. Our planting was attacked by gophers and grouse. Very few plants had a chance to grow.

Both had healthy plants, however they looked very different. 'Bountiful Ben' had a lot more tendrils and 'Lincoln' plants were more compact. 'Lincoln' vines produced a lot all at once and then were done. Though 'Lincoln' produced more heavily, I liked that 'Bountiful Ben' had more pickings. At first it looked like 'Bountiful Ben' would be all vines and tendrils, but it really wasn't, and I did like that variety. Both varieties were excellent. I had around 2 gallons of shelled out peas all together.

Both varieties produced well in the beginning, but 'Lincoln' vines developed mildew and quit producing. 'Bountiful Ben' vines were more upright and were a little easier to harvest. Its pods were full and uniform, but more limp and harder to shell. 'Lincoln' pods were not as full or as uniform. Its peas were sweeter and more tasty.

The semileafless vines of 'Bountiful Ben' were upright and easy to harvest from.

## Best shell pea varieties

Top choice
Lincoln

# Strong performers

Early Frosty
Green Arrow
Knight
Little Marvel
Maestro
Improved
Wando

## Prefer 'Lincoln'

Bountiful Ben ★☆☆☆ ⓒ Lincoln ★★☆☆ ⓒ MN

'Lincoln' had fuller vines. It climbed high on the fence and produced thicker pods. I've planted 'Lincoln' in the past and will continue with this variety. I had to replant both varieties (early and late May). 'Bountiful Ben' did not germinate well either time. The vines of 'Bountiful Ben' had short plants with lots of tendrils.

Germination was not as good on these plants as in previous years.

Bountiful Ben ★★★★ ② NE

'Lincoln' peas tasted better. 'Bountiful Ben' was not very bountiful—a very viny plant.

Bountiful Ben Lincoln SE

The yield of 'Lincoln' came in a shorter timeframe (most within 3 weeks) making preserving time better. Its vines got mildew around August 1. Both varieties were very productive, produced up to September 15, and would have produced more had I trellised them.

Bountiful Ben Eincoln © SE

'Lincoln' was way better. Its vines were taller, fuller and had more blossoms and pods. 'Lincoln' had bigger pods that tasted better and took longer to become overmature. 'Lincoln' produced three times the yield and over a longer period. Its pods averaged 9–11 peas, compared to an average of 7 peas per pod of 'Bountiful Ben'. 'Bountiful Ben' matured 1 week earlier.

'Lincoln' germinated better (80% compared to 40% for 'Bountiful Ben') although its leaves turned yellow faster. 'Bountiful Ben' pods were straighter, very easy to pick but miserable to shell. 'Lincoln' pods were easier to shell, and its peas had better flavor.

'Lincoln' germinated better. It produced 3 times more pods. 'Bountiful Ben' was earlier to harvest. Its peas were very nice and sweet when eaten raw.

Lincoln' produced a higher yield; its pods averaged 9 peas each. The tendrils of 'Bountiful Ben' were pretty and easy to attach to a fence.

Bountiful Ben ###### © SE

Bountiful Ben' was all tendrils, very few leaves and peas.

Bountiful Ben ★★★☆☆ ③
Lincoln ★★★★☆ ⑤ SE

'Lincoln' produced better.

Bountiful Ben ###### © NC

'Lincoln' produced more and lasted longer in producing. Its pods were ready 4 days earlier. Its pods were bigger and smoother. 'Bountiful Ben' had a more spreading vine and its peas tasted a little bit sweeter.

'Lincoln' had better germination and longer pods with more peas per pod. Both varieties had poor germination and did not have the yield compared to other years.

Bountiful Ben ##### ☺ Lincoln ##### ☺ NC

'Lincoln' performed better. It germinated 30% better. Its vines were healthier. Its peas were a little better, although the peas of both varieties were good.

Bountiful Ben 💢 😊 NC

Lincoln' pods were more attractive and tastier. 'Bountiful Ben' had a longer harvest season. It seemed that the vines of both varieties produced many tendrils and fewer (but tastier) pods this dry year.

'Lincoln'
matured
earlier, and
produced
higher yields
over a longer
season. Its
pods were
larger and
easier to shell.
Its peas tasted
better.
'Lincoln' is a
winner.

## Prefer 'Lincoln' (continued)

'Bountiful Ben' produced poor yields and very small pods.

Bountiful Ben SC

'Lincoln' had higher yields. Its pods were larger, and its peas tasted better.

Lincoln' had twice as many plants and they were healthier. 'Lincoln' pods averaged 8 peas per pod compared to 6 peas for 'Bountiful Ben'. 'Lincoln' peas were sweeter.

Lincoln' had nearly 100% germination. Its vines produced earlier and produced almost twice the yield. Its peas were sweeter. 'Bountiful Ben' vines grew more vigorously and produced over a longer period.

'Bountiful Ben' was slow and got mildew.

I grew a leafless vine pea last winter when I was in Arizona with the same results—a waste of time for the amount of peas picked. The only good thing I can say about 'Bountiful Ben' and its leafless vines are a 3-year-old child can easily find the pod.

Bountiful Ben \*\*\*\*\* ©
Lincoln \*\*\*\*\*\* © NW

The harvest started July 15 and continued for 3 weeks. 'Lincoln' produced more. 'Bountiful Ben' peas were juicy and sweet.

Bountiful Ben' produced the first pods. 'Lincoln' peas were sweeter and much tastier. 'Lincoln' vines produced much better yield and produced a week or two longer.

Lincoln' outperformed overall: Lots of peas, very nice pods, and excellent flavor. If you want nice peas, just plant 'Lincoln'.

'Lincoln' germinated better, produced significantly earlier and many more peas. 'Bountiful Ben' plants survived longer, so it might have been useful for eating through the summer had there been enough plants to yield a meal's worth of peas each picking.

'Lincoln' won all categories.

'Lincoln' is so good. The germination rate of 'Bountiful Ben' was only 75%.

Bountiful Ben ##### © SD

Lincoln' was far better overall. It produced more pods, had larger pods, and they were easier to shell. 'Lincoln' peas had far better flavor and tenderness. 'Lincoln' vines were healthier until lots of rain in July caused the plants to develop mold.

The varieties produced similar yields, but Lincoln' produced longer pods. The vines of 'Bountiful Ben' should have some sort of trellis the way they vine out. 'Lincoln' vines were fuller.

#### **Conclusions**

'Lincoln' again proved it is the finest garden pea for North Dakota. It germinated better, matured earlier, and produced much higher yields over a longer season. Its pods were larger and easier to shell. Its peas tasted better and nearly every gardener recommended it. The semi-leafless vines of 'Bountiful Ben' vines were upright and easy to harvest from, but its yields were low, and its pods were difficult to shell.

'Lincoln' again proved it is the best allpurpose garden pea for North Dakota. Nearly every gardener recommended it.

# **Pea, Snap**

#### **Varieties**

#### 'SL3123'

50 days. Straight, heavy pods grow on vigorous, compact vines. Good yields produced over a long time.

#### 'Sugar Ann'

52 days. Very early. The 27-inch vines produce sweet, crisp pods.

### **Data**

Gardeners at 59 sites submitted information.

Trait	SL3123	Sugar Ann	Same
Germinated best	9%	60%	30%
Healthier plants	12	52	36
Matured earlier	22	75	4
Higher yields	18	65	16
More attractive pod	s 20	47	33
Tasted better	20	46	34
Preference	20	80	
Recommend (©)	37	79	
Mean score <sup>1</sup>	5.30	7.44	
Median score <sup>1</sup>	6.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'SL3123'

SL3123	<b>គំគំ</b> ជាជាជា	
Sugar Ann	<del>ន់ន</del> ាំជាជាជា	NE

'SL3123' vines were slightly taller and easier to pick from. Neither had great yields. I prefer slightly taller, 3- to 4-foot vines that produce longer in the season.

SL3123	<b>ដ</b> ោះជាជាជា	
Sugar Ann	<b>ជា</b> ជាជាជាជា	SE

Both had terrible germination on the first planting (planted half of the seed in May and the other half in June). From June's planting, 'SL3123' germinated best. 'Sugar Ann' never did much and was I unable to collect a good amount to taste for comparison. 'SL3123' was woody in taste and texture perhaps due to the heat.



SL3123 Sugar Ann

NC

I like snap peas eaten fresh in my salads, so crunch and flavor were most important to me. 'SL3123' tasted good even if the pod had been on the vine longer than it should. 'SL3123' pods were slightly larger, sweeter, less stringy and crunchier. 'Sugar Ann' germinated better. Its vines seemed fuller, bloomed and produced much sooner, and provided more pods.

SL3123 NC Sugar Ann No comments.

SL3123 SC Sugar Ann

'SL3123' was much better tasting. 'Sugar Ann' became bitter very quickly, and the pods were very stringy, which made it very difficult to eat.

SL3123 Sugar Ann SC

I had bad luck this year with peas, starting with poor germination in spring. 'SL3123' vines got powdery mildew soon after the first harvest, so I pulled the vines to prevent the disease from spreading. Its pods tasted better but I'm not sure I would plant 'SL3123' again due to susceptibility of powdery mildew. 'Sugar Ann' produced well into summer on the few seedlings that we did get to germinate.

**'SL3123'** pods were larger and less stringy.

## **Best** snap pea varieties

Top choice Sugar Ann

## Strong performers

Sugar Sprint Super Sugar Snap

## Prefer 'SL3123' (continued)

SL3123 Sugar Ann SC SC

'SL3123' is a higher quality variety. Its plants were larger and healthier. Its pods were larger. 'Sugar Ann' pods were short with only 2–3 peas in them.

SL3123 © SC 'SL3123' had bigger pods.

All 'SL3123' seeds germinated compared to only half of 'Sugar Ann' seeds. 'SL3123' had higher yields. Pods of both varieties tasted the same.

SL3123 © Sugar Ann MT

'SL3123' pea pods were much larger and not stringy. The pods were good to eat.

SL3123 © MT

Sugar Ann © MT

'SL3123' produced a few more peas.

# Prefer 'Sugar Ann'

SL3123 Sugar Ann MN

'Sugar Ann' was by far the better pea. It grew better and tasted better. 'SL3123' produced very few pods. It was a total waste planting them.

'Sugar Ann' had crisp pods that my kids enjoyed. The pods of 'SL3123' were quite tough. Both varieties had nice vigorous plants. SL3123 Sugar Ann DE NE

'Sugar Ann' was a good producer. 'SL3123' did poorly in drought, was late in maturing, and succumbed to powdery mildew.

SL3123 Sugar Ann SL3123 NE

Only five 'SL3123' seeds germinated; 50% germination for 'Sugar Ann'. 'Sugar Ann' produced lots of pods.

'Sugar Ann' held up to the heat and wind better.

SL3123 ♣ ♣ ♠ ♠ ♠ ♦ NE
Sugar Ann ♠ ♠ ♠ ♠ ♠ ♠ ♠ ♠ №

I wouldn't plant 'SL3123' again. Was very disappointed with the germination (2%) while 'Sugar Ann' had good germination, grew great and produced very delicious peas.

SL3123 **★★★★** ⑤ SE Sugar Ann **★★★★** ⑥ SE

I don't eat peas, but my husband thought 'Sugar Ann' tasted better.

'Sugar Ann' was more consistent and had more pods. 'SL3123' pods were larger and fuller.

SL3123 Sugar Ann SE

'Sugar Ann' was superior in all traits including taste and yield.

SL3123 Sugar Ann SE

Sugar Ann produced a considerably higher yield of pods of nearly 30% by weight. They were also of a superior quality and were much better tasting. 'SL3123' showed little promise. This trial showed one of the greatest contrasts in any of the past trials I have participated in. The difference in both quality and quantity was huge. 'SL3123' didn't deserve the garden space.

'Sugar Ann'
germinated
better, was
much
healthier,
produced the
first pods and
produced
higher yields.

## Prefer 'Sugar Ann' (continued)

SL3123 \*\*\*\*\*\*\*\*\* © SE

'Sugar Ann' produced higher yields.

SL3123 © SE

'Sugar Ann' grew faster and produced an earlier yield.

'Sugar Ann' came up the best, had way healthier plants, produced a lot more pods, and produced much longer. Its pods tasted very good—sweet and crisp. It was a really good variety and I would definitely recommend it to others.

SL3123 Sugar Ann SE

'Sugar Ann' pods were very crisp and crunchy with a sweet pleasing taste. My young grandkids ate them like candy. Its pods were first harvested on June 30, 6 days earlier than 'SL3123'.

SL3123 \*\*\*\*\* © SE

'Sugar Ann' germinated better (95% compared to 50% for 'SL3123'). It was ready to harvest on June 29, 5 days earlier. It produced 4 times the yield. 'SL3123' pods had less of a string to remove and were sweeter.

SL3123 \*\*\*\*\* © SE

I had very similar results from both varieties. 'Sugar Ann' was slightly sweeter.

SL3123 Sugar Ann SE

'Sugar Ann' tasted good but didn't produce or yield much. 'SL3123' produced good yields but its pods didn't look very attractive or tasted quite as good. SL3123
Sugar Ann
SL3123' had poor germination. It also did

not stay on a fence well.

SL3123 Sugar Ann SE

'Sugar Ann' pods were slightly sweeter. We really loved these compact snap peas and recommend them. We recommend a small trellis to keep the vines from wanting to grow together. We would like to try sneaking them up against the sweet corn in spring to see if they trellis up, maybe with some squash. We covered them with a nice layer of mulch and watered consistently. They grew without much effort and survived rabbit damage as small plants (unlike our soybeans). Both varieties flowered quickly.

SL3123 
★★☆☆ ②
Sugar Ann 
★★☆☆ ② NC

'Sugar Ann' produced over a slightly longer period. Both varieties were susceptible to mildew.

'Sugar Ann' was sweeter, but both varieties were tasty.

SL3123 \*\*\*\*\* © NC

'Sugar Ann' produced much better.

SL3123 THITHE S NC

Neither variety germinated well. The few 'SL3123' plants didn't survive the wind, and I didn't get to try any. I got some pods of 'Sugar Ann'. I have grown 'Sugar Ann' before with better luck but was not impressed this year.

'Sugar Ann' plants were more vigorous. They produced the first pods and higher yields.

Gardeners
overwhelmingly
preferred
'Sugar Ann'.
Its pods were
sweeter,
crisper and
tasted better.

## Prefer 'Sugar Ann' (continued)

Although we liked the ease of which 'SL3123' snapped and liked its taste better, we give preference to 'Sugar Ann' because of its higher production and much better germination.

SL3123 THITHE S
Sugar Ann THITHE S
NC

'Sugar Ann' performed better in all traits. I planted this trial in my square-foot garden.

Neither variety did very well. I may not have watered enough. 'Sugar Ann' did slightly better for taste and production.

SL3123 tràinin (a)
Sugar Ann tràinin (b)
SC

'Sugar Ann' produced a few pods. 'SL3123' geminated but did not produce any peas. The vines of both varieties quickly dried up shortly after germination.

I had trouble with 'SL3123'. Only about onethird of the seeds germinated. Once they did, the plants didn't thrive as well as those of 'Sugar Ann'. I only got a handful of mature peas from 'SL3123', otherwise they were shriveled. 'Sugar Ann' vines stayed healthy and produced tastier peas.

SL3123 **拉拉拉拉** ⑧ Sugar Ann **拉拉拉拉** ⑨ SC

'Sugar Ann' tasted great. 'SL3123' did not come up at all!

SL3123 **★本**年中 ② SC Sugar Ann **★本**年中 ② SC

'Sugar Ann' had bigger pods and better yield. It tolerated the heat better.

SL3123 Sugar Ann SC

'Sugar Ann' had better yield.

'SL3123' germinated first but its vines did not produce a lot of pods. 'Sugar Ann' pods tasted better.

'Sugar Ann' pods were sweeter and crisper. 'SL3123' had somewhat woody tasting pods.

'Sugar Ann' outperformed 'SL3123'. It had a good taste and more pods.

'Sugar Ann' was the all-around winner in terms of yield, germination and sturdy plants.

'Sugar Ann'
continues to
impress us
with its
reliability,
productivity
and its sweet,
crisp pods.

### **No Preference**

I liked both varieties equally. Both were very good.

#### **Conclusions**

'Sugar Ann' was the clear winner. It germinated better, was much healthier, produced earlier and produced higher yields. 'Sugar Ann' pods were sweeter, crisper and tasted better. The pods of 'SL3123' were larger and less stringy. 'SL3123' germinated poorly at several sites, and most gardeners did not recommend it.

# **Pumpkin, Small**

#### **Varieties**

#### 'Early Abundance'

90 days. Semi-bush vines produce good yields of round, 5-pound fruits with shallow ribs.

#### 'Neon'

75 days. Ultra early. Eight-pound, bright fruits with black handles. Semi-bush vines.

#### Data

Gardeners at 7 sites submitted information.

Trait	Early Abundanc	e Neon	Same
Germinated best Healthier plants Harvested earlier Higher yields Bigger pumpkins More attractive	20% 0 0 40 0 20	40% 40 100 60 60	40% 60 0 0 40 20
Preference Recommend (©) Mean score <sup>1</sup> Median score <sup>1</sup>	17 <b>80</b> 7.20 7.00	83 80 9.20 10.00	
Median weight (lb	s) 4	6	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# **Prefer 'Early Abundance'**

Early Abundance Neon SE

'Early Abundance' germinated better and produced higher yields. Its fruits were more orange in color but less consistent in weight. 'Neon' fruits were larger and more uniform in weight.

#### Prefer 'Neon'

Early Abundance NE Neon

'Neon' had lots of pumpkins; very pretty watching them grow; had some mold on leaves towards end. 'Early Abundance' pumpkins never did turn orange (green with orange streaks).



Early Abundance Neon

SE

NC

SC

'Neon' fruits were beautiful from the start. 'Early Abundance' fruits didn't seem to be as ripe. They were picked on September 15. 'Neon' produced 10 fruits compared to 9 for 'Early Abundance'. 'Neon' never disappoints.

Early Abundance Neon

'Neon' produced more pumpkins. They were a beautiful bright orange and had a nice shape and size.

Early Abundance Neon



'Neon' pumpkins were orange a few weeks earlier; they were pretty to watch mature. Both varieties truly did great. They produced well and were a fun addition to the garden. I picked 43 pumpkins in total. Most of them were small (average 4.5 pounds), but there were a few big ones on each variety. 'Early Abundance' produced a few more pumpkins.

#### **Conclusions**

'Neon' never disappoints. It's always done well in our trials and was a winner again this year. It matured earlier and produced higher yields than 'Early Abundance'. Gardeners loved its precocious, bright orange color. Many gardeners recommended 'Early Abundance' but when asked to make a choice, nearly all preferred 'Neon'.

'Neon' matured earlier and produced higher yields. **Gardeners** loved its precocious, bright orange color. 'Neon' has always done well in our trials.

> **Best** short-vined pumpkin varieties

Top choice Neon

Strong performers

> Cargo Magic Lantern

# Pumpkin, Medium

#### **Varieties**

#### 'Early Dakota Howden'

90 days. An early selection of the popular 'Howden' variety. Bred in North Dakota. Twenty-pound fruits.

#### 'Early King'

90 days. Deep orange, 20-pound jack-o'lanterns with strong handles. Vines resist mildew. Early ripening.

#### **Data**

Gardeners at 15 sites submitted information.

Trait	Early Dak. Howden	•	Same
Germinated best	22%	11%	<b>67</b> %
Healthier plants	11	0	89
Harvested earlier	22	56	22
Higher yields	45	36	18
Bigger pumpkins	30	60	10
More attractive	30	30	40
Preference	45	55	
Recommend (©)	73	82	
Mean score <sup>1</sup>	7.20	7.20	
Median score <sup>1</sup>	8.00	8.50	
Median weight (lb	s) 10	12	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## **Prefer 'Early Dakota Howden'**

Early Dakota Howden Early King NE

'Early King' produced nothing. 'Early Dakota Howden' had fruit and they looked like they were going to be nice. Deer loved them!

Early Dakota Howden SE Early King I liked the normal (lighter) orange color of

'Early Dakota Howden.'



Early Dakota Howden Early King

SE

A groundhog ate all seedlings except one for each variety. The seedling of 'Early Dakota Howden' was up a least a week earlier and this made a huge difference in the number and size of all fruits. We had 3 mature and 15 immature fruits of 'Early Dakota Howden'. Its pumpkins were larger. We had 0 mature and 10 immature fruits of 'Early King'. Vines of both varieties were healthy; the vines of 'Early Dakota Howden' were larger.

Early Dakota Howden Early King

Both varieties did well. They produced many pumpkins that were nicely shaped for carving. No irrigation was provided, and the production was very good considering the extremely dry summer. 'Early Dakota Howden' produced slightly more pumpkins.

Early Dakota Howden SW SW Early King Both varieties really wowed. 'Early King'

produced a few really large fruits, but 'Early Dakota Howden' produced more consistently sized fruits.

**Gardeners** were impressed with the yields and uniform fruit size of 'Early Dakota Howden'.

## Best jack-o'lantern varieties

Top choice Early King

## Strong performers

Autumn Gold Cronus Early Dakota Howden Gladiator Magic Lantern

## **Prefer 'Early King'**

Early Dakota Howden

'Early King' pumpkins were bigger, and its vines produced more of them.

Early Dakota Howden ★★★★★ ⑤ Early King ★★★★★ ⑥ MN

We liked both varieties. 'Early King' pumpkins were bigger and more attractive. 'Early Dakota Howden' pumpkins were more uniform in size and shape.

Early Dakota Howden

'Early King' was better by a hair.

Early Dakota Howden

'Early King' pumpkins were bigger and looked nicer.

Early Dakota Howden \*\*\* © SC Early King \*\*\* SC

I had a terrible yield from both varieties, but I did get one nice one from 'Early King'.

Early Dakota Howden \*\*\* © SW

'Early King' produced more pumpkins per hill and larger pumpkins. Both varieties had nice, round pumpkins.

#### **Conclusions**

'Early King' outperformed 'Howden' last year and outperformed a local selection, 'Early Dakota Howden', this year. 'Early King' matured earlier and its pumpkins were bigger. Most gardeners recommended 'Early Dakota Howden' as well. They were impressed with 'Early Dakota Howden' yields and the uniform size and shape of its fruits. 'Early King' pumpkins had a darker orange color, but gardeners were evenly split as to which variety's pumpkins were more attractive.

Most gardeners preferred 'Early King'. It matured earlier and its pumpkins were bigger.

#### **Key to Site Reports** (reports are presented from east to west) Recommendation to MN = Minnesota NW NC NE other gardeners NE = Northeast Ratings (ves or no) SE = Southeast (1 to 10)Location NC = North Central SC = South Central Variety A NW = Northwest Variety B NC Comments SW = Southwest 'Variety A' germinated better and produced MB = Manitoba the first harvest. We loved its taste. 'Variety SD = South Dakota B' produced higher yields but was tasteless. SW SC SE MT = Montana

# **Pumpkin, Large**

#### **Varieties**

## 'Early Giant'

95 days. Dark orange, 30-pound, slightly tall pumpkins perfect for carving. Vines resist mildew. Early ripening.

#### 'Gold Medal'

95 days. Dark orange, 35-pound fruits with thick, strong handles. Top quality. Vigorous vines.

#### **Data**

Gardeners at 19 sites submitted information.

Trait	Early Giant	Gold Medal	Same
Germinated best	31%	6%	63%
Healthier plants	38	13	50
Harvested earlier	<b>50</b>	21	29
Higher yields	29	29	43
Bigger pumpkins	<b>57</b>	14	29
More attractive	<b>43</b>	21	36
Preference	79	21	
Recommend (©)	88	75	
Mean score <sup>1</sup>	7.93	6.21	
Median score <sup>1</sup>	8.00	6.50	
Median weight (lbs)	22	18	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# **Prefer 'Early Giant'**

Early Giant	<b>ARRIVA</b>	$\odot$	
Gold Medal	<b>គំគំ</b> ជាជាជា	$\odot$	MN

'Early Giant' had nicer fruit. Both varieties grew a lot of vines and lots of blossoms, but only a few fruits. I would try both again.

Early Giant Gold Medal SE 'Early Giant' pumpkins had a nice size.

Early Giant Gold Medal NC

Both grew well and produced similar yields. 'Early Giant' bloomed first and produced larger pumpkins.



Early Giant Gold Medal



NC

No irrigation was provided to either variety during the extremely dry summer. Early Giant' performed well and produced many pumpkins. Its pumpkins were large and uniform in shape. 'Gold Medal' pumpkins were much smaller, and many did not mature.

Early Giant NC Gold Medal

The pumpkins of 'Early Giant' were nicer looking.

Early Giant Gold Medal NC

These varieties were very similar, but 'Early Giant' had healthier plants.

Early Giant SC Gold Medal

'Early Giant' was much better all around.

Early Giant Gold Medal SC

Both germinated at nearly 100%. Both handled the drought well. They had good yields of nice, large varieties! 'Early Giant' pumpkins were uniform in shape and taller-great for carving!

Early Giant Gold Medal SC

They didn't get very big at all (5 pounds), and it was a good year for produce here.

Most gardeners preferred 'Early Giant'. Its pumpkins were bigger. matured earlier and were more attractive.

## **Best large** pumpkin varieties

Top choice Big Moose

# Strong performers

Dill's Atlantic Giant Early Giant Howden Biggie

## **Prefer 'Early Giant' (continued)**

Early Giant ###### © SW

'Early Giant' produced more pumpkins, but the shape of them were oblong—none were nice and round. 'Gold Medal' produced nice round pumpkins but this variety did not germinate well for me.

I liked 'Early Giant' slightly better, mostly because of the bigger fruit.

### Prefer 'Gold Medal'

Early Giant © NE

'Gold Medal' had overall bigger pumpkins.

'Gold Medal' produced many more pumpkins. Their shapes were very consistent.

We harvested over 30 pumpkins in this trial. I should have allowed more space. 'Early Giant' performed better but I prefer the rounder shape of 'Gold Medal' pumpkins.

#### **No Preference**

Early Giant – © SC Gold Medal – © SC

Both varieties produced well. A bumper crop of pumpkins!

#### **Conclusions**

'Early Giant' won the gold medal in this contest. Its pumpkins were bigger, matured earlier and were more attractive than those of 'Gold Medal'. Both varieties grew well and produced good yields. Some gardeners preferred the barrel shape of 'Early Giant' pumpkins for carving, while others preferred the globular shape of 'Gold Medal' pumpkins.

some gardeners preferred the barrel shape of 'Early Giant' pumpkins for carving, while others preferred the globular shape of 'Gold Medal' pumpkins.

# **Pumpkin, Orange Ornamental**

## **Varieties**

#### 'Jack Be Little'

95 days. Classic mini-pumpkin. Prolific yields of bright orange, ribbed fruits on vigorous vines.

#### 'Jill Be Little'

100 days. Long, disease-resistant vines produce lots of deep orange, 8-ounce fruits for displays.

#### **Data**

Gardeners at 5 sites submitted information.

Trait	Jack Be Little	Jill Be Little	Same
Germinated best	25%	25%	50%
Healthier plants	25	0	75
Harvested earlier	25	25	50
Higher yields	25	<b>50</b>	25
Bigger fruits	25	25	0
More attractive	75	0	25
Preference	75	25	
Recommend (©)	75	25	
Mean score <sup>1</sup>	8.50	7.75	
Median score <sup>1</sup>	9.00	7.50	

 $<sup>^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### **Prefer 'Jack Be Little'**

Jack Be Little

No comments.

Jack Be Little	****	$\odot$	
Jill Be Little	南南南南南	$\odot$	SE

'Jack Be Little' had 22 fruits; all ripe and solid orange. 'Jill Be Little' produced 45 fruits; not all ripe and in shades of yellow and orange. Both varieties germinated poorly.

Jill Be Little 'Jill Be Little' was	too small.	8	SE
Jack Be Little Jill Be Little	食物食物的 食物食物的		SC



#### Prefer 'Jill Be Little'

Jack Be Little	<b>ត់ត់ត់</b> ជំជំ	(3)	
Jill Be Little	食食食食食		SW

I was a little underwhelmed with the performance of both varieties. I harvested a few fruits from each, but nothing like I was expecting. 'Jill Be Little' produced more marketable fruits.

#### **Conclusions**

Our data are limited, but most gardeners preferred 'Jack Be Little'. Its fruits were a little larger and more attractive. The vines of both varieties were healthy. More extensive testing is needed.

Most gardeners preferred 'Jack Be Little'. Its fruits were a little larger and more attractive.

> Best orange ornamental pumpkin variety

Top choice
Jack Be Little

# **Pumpkin, Striped Ornamental**

## **Varieties**

#### 'Blaze'

95 days. Bright yellow, 3-pound fruits with orange stripes. Compact vines resist diseases and produce high yields.

#### 'Hooligan'

90 days. Speckled, 8-ounce fruits with long handles. Orange, edible flesh. Compact vines resist diseases.

#### Data

Gardeners at 4 sites submitted information.

Trait	Blaze	Hooligan	Same
Germinated best	<b>50</b> %	25%	25%
Healthier plants	0	0	100
Harvested earlier	75	25	0
Higher yields	50	50	0
Bigger fruits	75	25	0
Looked better	50	0	50
Preference	75	25	
Recommend (©)	100	75	
Mean score <sup>1</sup>	9.25	7.50	
Median score <sup>1</sup>	9.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### Prefer 'Blaze'

Blaze	****	$\odot$	
Hooligan	<b>គំគំ</b> ជំណើ	$\odot$	SE

'Blaze' was more productive, and its pumpkins were cuter.

Blaze	****	$\odot$	
Hooligan		$\odot$	SE

Blaze' germinated better. Its fruits were a little more consistent in size and color; although I did like the variety of colors with 'Hooligan'. I loved both varieties; got so many comments on them and hope to plant them again next year. They are hardy plants and can take anything. Varmints did clean the insides out of some of the fruits. I did not eat any, but something enjoyed them!



Blaze	****	$\odot$	
Hooligan	<b>संसेत्रेत्र</b> ी	$\odot$	NC
Bloze' numokin	c were bioger a	nd be	ichter

'Blaze' pumpkins were bigger and brighter. Both varieties had very cool pumpkins!

## Prefer 'Hooligan'

Blaze	****	$\odot$	
Hooligan	****	$\odot$	MT

'Hooligan' produced higher yields and larger fruits.

#### **Conclusions**

Blaze' was a standout in this trial. In our limited testing, 'Blaze' germinated better, matured earlier and produced larger pumpkins. Its fruits were bright, attractive and uniform in size. Every gardener recommended it. Most gardeners recommended 'Hooligan'. It matched the yields of 'Blaze'.

Every gardener recommended 'Blaze'. It grew well, matured early and produced lots of brightly colored fruits.

Best striped ornamental pumpkin variety

Top choice Blaze

# **Pumpkin, White Ornamental**

Casperita

#### **Varieties**

### 'Casperita'

90 days. Bright white skin, deep ribs and strong handles. White, edible flesh. Semibush vines.

#### 'Gooligan'

95 days. Disease-resistant, vigorous vines produce edible pumpkins up to 1 pound.

#### **Data**

Gardeners at 5 sites submitted information.

Trait	Casper. Gooligan		Same
Germinated best	20%	20%	60%
Healthier plants	60	20	20
Harvested earlier	60	20	20
Higher yields	40	20	40
Bigger fruits	80	20	0
Looked better	80	20	0
Preference	80	20	
Recommend (©)	80	60	
Mean score <sup>1</sup>	8.40	7.20	
Median score <sup>1</sup>	8.00	7.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Casperita'

Casperita	****	$\odot$	
Gooligan	<b>南南南</b> 郭沿	$\odot$	MN

I have grown both varieties but never side by side like this. 'Casperita' had overall better performance. Its plants were larger and bushier. It produced the first good-sized pumpkin (July 4). It produced more pumpkins, larger pumpkins. The fruits had a better shape and were more uniform.

Casperita © SC No comments.



Gooligan	<b>含含含含</b> 含	© SC
Both varieties ger	minated near	100%. They
handled the heat a	and drought. I	prefer the
size of 'Casperita'	—a little bigg	ger. Its
pumpkins had a v	ery bright wh	ite skin and
were very uniform	n in size. No b	olemishes.

'Casperita' had bigger fruits. We are not sure if 'Gooligan' fruits were slow to grow or if they matured at a smaller size.

'Casperita'
pumpkins
were bright
white, uniform
in size, and
beautiful. Its
vines were
vigorous and
produced lots
of pumpkins in
a short time.

# Prefer 'Gooligan'

Perfect little pumpkins!

Casperita	<b>គំគំគំ</b> ជំជំ		
Gooligan	****	$\odot$	NO

'Gooligan' had much better plants and many more pumpkins on each vine.

#### **Conclusions**

'Casperita' was outstanding. Gardeners in our limited testing were impressed with its bright white skin and uniform size. Its fruits were bigger, matured earlier and looked more attractive. Its vines were more vigorous, healthier and productive. 'Gooligan' was recommended by most growers, but this variety was outshone by the luminous 'Casperita'.

Best white ornamental pumpkin variety

Top choice Casperita

# Spinach, Smooth Leaf

### **Varieties**

#### 'Seaside'

43 days. Dark green, thick, spade-shaped leaves. Plants grow upright and resist bolting.

### 'Space'

45 days. Grows vigorously and is slow to bolt. Medium-green leaves. Upright habit keeps leaves clean.

#### Data

Gardeners at 39 sites submitted information.

Trait	Seaside	Space	Same
Germinated best	13%	40%	47%
Healthier plants	14	39	46
Harvested earlier	34	41	24
Higher yields	18	46	36
Resisted bolting	15	52	33
More attractive	21	39	39
Tasted better	26	22	52
Preference	39	61	
Recommend (©)	64	71	
Mean score <sup>1</sup>	7.14	7.93	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## Prefer 'Seaside'

Seaside	<b>自由自由</b> 企	$\odot$	
Space	<b>គំគំគំ</b> ជំជំ		MN
"Senside" tasted	nette <b>r</b>		

'Seaside' tasted better.

Seaside	****	$\odot$	
Space	青青青泉沿	$\odot$	NE

We ate more of the 'Seaside' because it looked a little more attractive in the garden, so was more enticing to choose when both varieties were equally available.

Seaside Space	****	NE
(O :1.11 11		

'Seaside' had better taste.

Seaside SE Space

'Seaside' had better looking plants.



Seaside	***	$\odot$	
Space	<b>南南南南沿</b>	$\odot$	SE
XX77 111 1 1 1 ·			

We liked the crisp texture of 'Seaside' in salads. Both varieties bolted around August 1.

Seaside	****	$\odot$	
Space	<b>自由自由</b> 企	$\odot$	SE

'Seaside' had very crispy, "beefy" leaves. It produced many cuttings. I shared it with coworkers and they agreed that it tasted better than 'Space'. Both varieties bolted on July 5.

Seaside	***	$\odot$	
Space	<b>有有有</b> 能位	$\odot$	NC

'Seaside' just seemed to be a nicer looking spinach, as well as my preferred taste pick. I liked the emerald green, upright leaves and milder flavor. 'Space' germinated better and was slower to bolt.



'Seaside' tasted slightly better—less bitter. Other than that, they seemed identical. Both had incredible yields, to the point that I couldn't keep up with them.

I planted in containers on June 1 and then again in late August. Both varieties performed well in both plantings.

**Both varieties** were healthy and produced good crops of delicious leaves.

**Best** smooth-leaf spinach varieties for spring sowing

Top choice Space

Strong performer Olympia

## Prefer 'Seaside' (continued)

Seaside © NW

The leaves of 'Seaside' were smaller and thick; great for salads. Its leaves stayed smaller longer. 'Space' leaves were bigger and took slightly longer to get started. There was no noticeable difference in taste. Both varieties bolted by the 4th of July.

'Seaside' leaves were tender and tasted better. 'Space' leaves were tougher to chew and harsher in taste.

## Prefer 'Space'

Seaside Space MN

Seedlings looked great from start with nearly 100% germination from 'Space' and 75% from 'Seaside'. Something happened when plants were small, so I lost most of them and wasn't able to harvest anything from either variety. I've grown spinach for years and never had this problem. I would try 'Space' again as that variety seemed to do a little better.

Seaside Space © NC

'Space' was better in all areas.

Seaside © NC

'Space' resisted bolting 2.5 weeks longer than 'Seaside'. It germinated poorly (10% compared to 70% for 'Seaside').

Seaside ##### © NC

Both varieties germinated poorly and showed poor resistance to bolting. 'Space' showed a little bit more vigor and was ready to harvest 5 days earlier. There was not much difference in yields or in the appearance of the plants. 'Seaside' had a nice spinach flavor in a salad.

Seaside © NC

Seaside Seaside S

'Space' had more leaves.

Space

'Space' remained young and fresh looking. It lasted longer and did not bolt.

NC

Seaside Space SC SC

'Space' had better flavor and was slower to bolt.

Seaside Space SC SC

'Space' was generally better overall. An overall better producer.

Seaside © Space SC

We liked the unique shape of the 'Space' leaves.

Seaside Space SC SC

'Space' outperformed 'Seaside' from the beginning. It had a more even stand and came up much sooner than 'Seaside'. Both bolted in the hot weather, and I couldn't taste a difference between the two.

Seaside © NW

All my "taste testers" said the leaves of 'Space' were sweeter. It was great in salads and in pesto! Both varieties produced large quantities of spinach, with our fifth cutting in September.

Seaside © Space © NW Both varieties were very good.

Very similar varieties. Both were great.

They key to growing spinach in spring is to sow a variety that resists bolting—this is where 'Space' excels.

## Prefer 'Space' (continued)

Seaside Space SW

'Space' plants had nice, uniform leaves. They yielded longer before bolting. 'Seaside' leaves were larger.

Seaside Space Sw

'Space' didn't bolt. It grew back quickly after cutting.

'Space' grew well, was slow to bolt, and did not get bitter in hot weather. It is a superior alternative to 'Bloomsdale' spinach. 'Seaside' germinated well, but it did not continue to grow well.

SW

Seaside Space Spac

'Space' had good taste and higher yield.

#### **Conclusions**

Both varieties performed well but 'Space' was the preferred choice. The key to growing spinach in spring is to sow a variety that resists bolting—this is where 'Space' excels. 'Space' resisted bolting longer, grew quickly and produced higher yields. It germinated better than 'Seaside' although some gardeners were disappointed with the germination of both varieties. There was no clear preference in the taste of the varieties.

'Space'
germinated
better,
resisted
bolting longer,
grew quickly
and produced
higher yields.

# **Squash, Straightneck**

## **Varieties**

#### 'Fortune'

45 days. Smooth, bright yellow fruits. Sturdy necks resist breaking. Yellow gene masks green streaking.

#### 'Multipik'

50 days. Smooth, bright yellow fruits. No green streaking. Amazing yields. Great for grilling.

#### **Data**

Gardeners at 2 sites submitted information.

<i>T</i>	П	Multi-	0
Trait	Fortune	pik	Same
Germinated best	0%	<b>50</b> %	<b>50</b> %
Healthier plants	0	50	50
Harvested earlier	0	0	100
Higher yields	50	50	0
More attractive fru	iits 0	50	50
Tasted better	0	50	50
Preference	50	50	
Recommend (©)	100	100	
Mean score <sup>1</sup>	8.50	9.00	
Median score <sup>1</sup>	8.50	9.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### **Prefer 'Fortune'**

Fortune	<b>自由自由</b> 的	$\odot$	
Multipik	<b>有有有有</b> 值	$\odot$	SE

<sup>&#</sup>x27;Fortune' produced more, and the harvest lasted longer.



## Prefer 'Multipik'

Fortune	<b>自由自由</b> 企	$\odot$	
Multipik	***	$\odot$	SC

These varieties are excellent. They both germinated well, had healthy vines and tasted good. I got a lot of squash off these plants. The plants of 'Multipik' were bigger and fuller; they produced more fruits per plant.

## **Conclusions**

The varieties were similar in many respects and both produced an amazing amount of squash. In 2017, more gardeners preferred the fruit quality of 'Fortune', but gardeners this year gave the edge in fruit quality to 'Multipik'. Although only two gardeners submitted data for this trial, both of them recommended both varieties.

These varieties were very similar and both produced an amazing amount of squash.

Best straightneck squash varieties

**Top choice** Fortune

Strong performers Multipik

Zephyr

# Squash, Dark Green Zucchini

## **Varieties**

#### 'Desert'

50 days. High yields of straight fruits. Open plants make harvesting easy. Vines resist powdery mildew.

#### 'Raven'

48 days. Dark green, smooth, glossy fruits. Vines have an open habit. Big yields. Proven performer in North Dakota.

#### **Data**

Gardeners at 13 sites submitted information.

Trait	Desert	Raven	Same
Germinated best	9%	0%	91%
Healthier plants	30	10	60
Harvested earlier	40	20	40
Higher yields	60	30	10
More attractive fru	its 20	40	40
Tasted better	27	9	64
Preference	58	42	
Recommend (©)	91	73	
Mean score <sup>1</sup>	8.45	8.00	
Median score <sup>1</sup>	9.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### **Prefer 'Desert'**

Desert	南南南南北	$\odot$	
Raven	<b>自由自由</b> 企	$\odot$	SE

We harvested hundreds of zucchinis. Both varieties germinated very well and developed nicely into full size plants. 'Raven' fruits grew too fast. I liked that when I checked the garden every other day the 'Desert' fruits were the right size. Some 'Raven' fruits would get too big in that two-day period.

Desert	***	$\odot$	
Raven	<b>未未未</b> 命		SE

'Desert' fruits were straighter. Zucchini overproduced so I needed to pull all but four plants.



Desert	<b>自由自由</b> 自	$\odot$	
Raven	ត់តំសំណ		SE

After similar neglect for two weeks, 'Raven' died, yet 'Desert' was fine (as were all of my other squashes and pumpkins). 'Desert' was already outproducing 'Raven' before the latter died.

Desert	****	$\odot$	
Raven	<b>ARRIGI</b>	$\odot$	SC

'Desert' produced the first fruits. Both varieties were heavy producers.

Desert	***	$\odot$	
Raven	<b>未会会会</b>	$\odot$	SC

'Desert' produced more fruit earlier, but 'Raven' produced just about the same amount of fruit later in the season. I preferred the taste of 'Desert' just a bit more. Planting both varieties at the same time was crazy. I had so many zucchinis this year, I'm still shredding and freezing what I had. They were both excellent producers.

Both produced well, but not too many fruits. 'Raven' vines got powdery mildew at the end of the season.

Desert © Raven © SW

'Desert' had superior flavor and yields.

'Desert'
produced
higher yields
and produced
the first fruits
in more
gardens.
Nearly every
gardener
recommended
it.

Best dark green zucchini varieties

Top choice Raven

Strong performer Desert

#### Prefer 'Raven'

Desert ##### © SE

Raven' did not produce as much but was a healthier plant that produced nicer fruit. 'Desert' started producing earlier and produced higher yields.

Both did fabulous. 'Raven' produced first.

They both did equally well and tasted about the same to us. 'Raven' had a little higher yield.

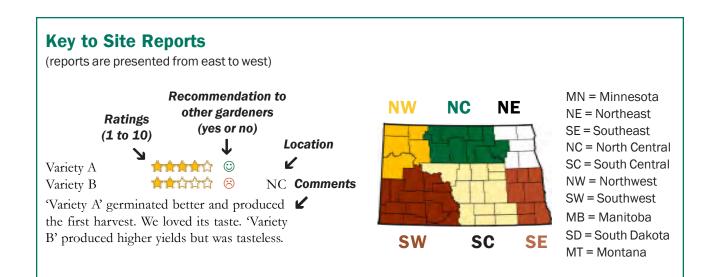
Desert ##### © NC

They were very similar.

## **Conclusions**

'Raven' has always done well in our trials, but this year our team of gardeners preferred 'Desert'. Nearly every gardener recommended it. 'Desert' produced higher yields and produced the first fruits at many gardens. More gardeners liked the looks of 'Raven' but preferred the taste of 'Desert'.

Gardeners were overwhelmed with the productivity of both varieties.



# Squash, Green Zucchini

## **Varieties**

#### 'Cashflow'

45 days. Open, vigorous plants produce heavy yields of 8-inch, high quality fruits.

### 'Spineless Beauty'

50 days. Longtime favorite. Uniform fruits form on spineless, productive vines. Easy to pick.

#### **Data**

Gardeners at 8 sites submitted information.

m ·		pineless	
Trait	Cashflow	Beauty	Same
Germinated best	33%	33%	33%
Healthier plants	17	50	33
Harvested earlier	33	50	17
Higher yields	33	50	17
More attractive fr	uits 33	50	17
Tasted better	0	O	100
Preference	33	67	
Recommend	50	100	
Mean score <sup>1</sup> Median score <sup>1</sup>	7.00 7.00	8.17 8.50	
		_	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### **Prefer 'Cashflow'**

Cashflow Spineless Beauty SE

While we did have plenty of zucchini to harvest, both varieties suffered heavily from blossom end rot. 'Cashflow' had healthier plants. Zucchini was not one of the best performers this year. We always plant it and have enough to fill everybody's needs. This year was not one of those years.

Cashflow ©
Spineless Beauty NW

'Cashflow' had a prettier, lighter skin. 'Spineless Beauty' plants were more compact. They produced the first yield but fewer fruits per plant. 'Spineless Beauty' fruits had a thicker skin. Production was down on both varieties this year.



## **Prefer 'Spineless Beauty'**

Cashflow Spineless Beauty SE

More 'Cashflow' plants came up than 'Spineless Beauty', but I got way more fruits off 'Spineless Beauty'—couldn't keep up with it.

Neither variety produced excessive zucchini but 'Spineless Beauty' did better.

Cashflow Spineless Beauty SC SC

'Spineless Beauty' had some of the biggest plants I ever grew and were loaded with fruit. Both varieties germinated very well. Their fruits had beautiful skin and tasted very good.

Cashflow
Spineless Beauty
Spineless Beauty' germinated better.

#### **Conclusions**

'Spineless Beauty' was the preferred variety and every gardener recommended it. 'Spineless Beauty' vines were healthier, produced earlier and produced more zucchinis. Its skin was beautiful. Gardeners enjoyed the taste of both varieties but did not show a preference. Several gardeners noted their harvest of zucchini this year was down from previous years.

Every gardener recommended 'Spineless Beauty'. Its vines were healthier, produced earlier and produced more zucchinis.

Best green zucchini varieties

**Top choice**Spineless
Beauty

Strong performer Payload

# **Squash, Winter Acorn**

## **Varieties**

#### 'Black Bellota'

75 days. Lustrous, black fruits with high quality flesh. Semi-bush vines resist diseases. Long storage life.

#### 'Table Ace'

80 days. Semi-bush plants produce very dark fruits filled with tasty golden flesh. Early and productive.

#### **Data**

Gardeners at 6 sites submitted information.

Trait	Black Bellota	Table Ace	Same
Germinated best Healthier plants Harvested earlier Higher yields More attractive fru Tasted better	20% 40 40 40 its 25 20	20% 20 20 20 20 0	60% 40 40 40 75 80
Preference Recommend Mean score <sup>1</sup> Median score <sup>1</sup>	67 60 7.00 8.00	33 60 6.60 8.00	80

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### **Prefer 'Black Bellota'**

Construction delays and problems meant planting in too shaded an area. 'Black Bellota' produced more squash but very few fruits because of the shade.

Black Bellota' had markedly better germination (nearly 100%) and grew better. Table Ace' did not germinate as well, but had just as beautiful, tasty fruits. These were fun varieties to try.



## **Prefer 'Table Ace'**

Black Bellota 💮 SW

Table Ace' vines had less disease and their fruits had a rounder shape.

#### **No Preference**

Black Bellota ###### © SC

I didn't really care for either one. Not much flavor.

#### **Conclusions**

Black Bellota' was the top variety in this trial, but gardeners did not express much enthusiasm for it or for 'Table Ace'. 'Black Bellota' vines grew well and produced satisfactory yields.

Most gardeners preferred 'Black Bellota'. It grew well and produced satisfactory yields.

> Best acorn winter squash varieties

Top choice Carnival

Strong performers

Black Bellota Table Ace Table King

# Squash, Buttercup/Kabocha

## **Varieties**

#### 'Bonbon'

95 days. Award winner. Semi-bush vines produce reliable yields of classic cupped fruits. Superb flavor.

#### 'Sweet Mama'

85 days. Award winner. Kabocha type. Thick yellow flesh is smooth and sweet. Heavy yields on compact vines. Cupless fruits.

#### **Data**

Gardeners at 30 sites submitted information.

Trait	Bonbon	Sweet Mama	Same
Germinated best	22%	11%	67%
Healthier plants	19	7	74
Harvested earlier	<b>38</b>	38	25
Higher yields	33	37	30
More attractive fru		23	62
Tasted better		29	42
Preference Recommend	50 86	<b>50</b> 75	
Mean score <sup>1</sup>	8.00	7.50	
Median score <sup>1</sup>	8.00	<b>8.00</b>	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

### Prefer 'Bonbon'

Bonbon	<b>自由自由</b> 企	$\odot$	
Sweet Mama	<b>គំគំគំ</b> ជំជំ		SE

'Bonbon' produced more and bigger fruit.

Bonbon		
Sweet Mama	ត់ដោះជាជាជា 🕾	SE
'Sweet Mama' pr	oduced low yields.	

Bonbon	食食食品食	$\odot$	
Sweet Mama	<b>គំ</b> ជាជាជាជា		SE

We had high winds as the plants sprouted. This caused about 90% of the seedlings to spin off and die. Two 'Bonbon' plants survived and yielded very well! None of the 'Sweet Mama' plants survived.



Bonbo	n
Sweet	Mama

Bonbon' had more moisture in the flesh of the fruit. 'Sweet Mama' fruits were larger. Both varieties had lush, large plants. The trial was watered using drip irrigation every other day from July 15 to September 1 due to very limited rainfall.

Bonbon	****	$\odot$	
Sweet Mama	<b>ने ने ने</b> में दे	$\odot$	SC

Bonbon' flesh was drier and sweeter.

Bonbon Sweet Mama SC SC

Both are very dry eating. Both are very productive. 'Bonbon' fruits were a little smaller and easier to cut open. The stems on 'Sweet Mama' were large.

Bonbon Sweet Mama SC SC

When baked, the flavor of 'Bonbon' was better and they are storing better than 'Sweet Mama'. The average weight of 'Bonbon' was 3.6 pounds. The flesh had a dry texture but really good squash flavor (needed more butter). The average weight of 'Sweet Mama' was 4.5 pounds and its rinds were thicker. 'Sweet Mama' had a creamy texture and was sweet, but didn't have much flavor unless it was roasted. Some of its fruits are starting to spoil in storage. We like to bake one of each variety and blend them together to get the best flavor and texture. We are keeping seed from both varieties.

More gardeners recommended 'Bonbon', but they were evenly split when asked which variety they preferred.

Best buttercup winter squash varieties

Top choice Bonbon

Strong performers Burgess

## Prefer 'Bonbon' (continued)

Bonbon © Sweet Mama © SC

These both were just phenomenal! They literally took over the garden, but man are they delicious! The flavor of 'Bonbon' is just a bit more intense.

Bonbon © NW

'Bonbon' flesh was moister and very flavorful. Plants of both varieties were very productive and I harvested 115 squash.

Bonbon © Sweet Mama MATTER & NW

'Bonbon' produced the best in my "crappy" soil. Much higher yields by far. It fruits had a nice size and dark skin. 'Sweet Mama' may have done better if planted earlier (sown June 4). It only produced one squash even though they flowered nicely.

'Bonbon' started out better and we all agreed it tasted better. 'Sweet Mama' produced a few more squash. Overall we would prefer the classic 'Burgess' buttercup.

Bonbon © Sweet Mama © SW

Bonbon' was better tasting.

All seed of both varieties came up. All of the 'Sweet Mama' plants twisted off and blew away in 40 MPH winds. One 'Bonbon' plant survived and produced a wheelbarrow full of sweet, tasty, well developed squash.

#### **Prefer 'Sweet Mama'**

Bonbon © MN

'Sweet Mama' produced a little larger fruit. The very dry weather in August affected yields. I would like to try again and hope to have ample rainfall in August.

Bonbon © NE

'Sweet Mama' was an early producer. Both varieties produced very well and were very good overall.

I sowed 8 seeds of each and harvested 24 'Bonbon' and 18 'Sweet Mama' fruits—great yields. 'Sweet Mama' had even-sized fruit and baked up great. Next time I plant squash it has to be by itself. Both varieties were eager to sprawl all over the garden.

'Sweet Mama' was better tasting and had higher yield.

Bonbon Sweet Mama SE

'Sweet Mama' had 14 fruits and bigger fruits. 'Bonbon' had 9 little fruits. We harvested on September 15.

Just starting to eat the squash and both are delicious! 'Sweet Mama' produced slightly more and its plants were healthier.

Bonbon © NC

'Sweet Mama' produced a few more and tasted very good—a little sweeter. 'Bonbon' was very consistent in size (two squash at 2 pounds and the rest were 5.5 pounds). 'Sweet Mama' squash was less consistent (two at 1.5 pounds, most were 4 pounds and two weighed 7.5 pounds).

Bonbon
Sweet Mama
Sweet Mama' tasted better and produced a

Bonbon Sweet Mama SC SC

few more squash.

'Sweet Mama' produced higher yields. Both varieties grew well under dry conditions and produced loads of delicious squash.

'Sweet Mama' fruits were larger, but gardeners did not express a clear preference for taste qualities.

## Prefer 'Sweet Mama' (continued)

Both varieties did well. I thought yields would have been better, but both varieties did about the same.

Bonbon © NW

I love the "cup" look of 'Bonbon', but 'Sweet Mama' produced a lot more. Both varieties germinated at near 100% and the vines were healthy.

I was really impressed with both varieties. 'Sweet Mama' had a slight edge in production but both had good production and outstanding taste. These are likely the only winter squash I will plant in the future.

Bonbon Sweet Mama

This was a great squash harvest! 'Sweet Mama' yielded over 100 squash and its fruits had more flesh. 'Sweet Mama' is not a compact variety as indicated, but it is a fantastic performer. I will be planting this variety in the future.

SW

### **No Preference**

The varieties were very similar. They produced well under dry conditions

Bonbon Sweet Mama SE

They both tasted great.

#### **Conclusions**

Gardeners were impressed with both varieties and were evenly split in their preferences. The vines of both varieties were healthy and productive. Some gardeners noted the vines were not as compact as expected. Slightly more gardeners recommended 'Bonbon'. There was no clear preference when assessing the appearance and taste of the fruits.

The vines of both varieties were healthy and productive.

# **Squash, Winter Butternut**

## **Varieties**

### 'Early Butternut'

82 days. Early maturing hybrid produces good yields of delicious fruits on compact vines.

#### 'Pilgrim'

85 days. Semi-bush plants set crackfree fruits with thick, meaty necks. Nutty, flavorful flesh.

#### Data

Gardeners at 17 sites submitted information.

	Early		
Trait	Butter.	Pilgrim	Same
Germinated best	38%	0%	62%
Healthier plants	43	0	57
Harvested earlier	64	7	29
Higher yields	43	29	29
More attractive fru	its <b>43</b>	21	36
Tasted better	20	20	60
Preference	79	21	
Recommend	85	62	
Mean score <sup>1</sup>	8.29	7.29	
Median score <sup>1</sup>	8.50	7.50	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# **Prefer 'Early Butternut'**

Both germinated well but got pounded from hail on August 1. The plants looked dead and fruit growth was stunted. 'Early Butternut' did start flowering again. It had bigger/more vines and produced the first fruit. Its fruits were larger and more stocky. The varieties produced about the same amount of fruit. The taste of both varieties was similar and delicious, with an edge going to 'Pilgrim'.



Early Butternut \*\*\*\* - Pilgrim \*\*\*\* - MN

Did not taste yet and cannot make a recommendation until then.

'Early Butternut' produced and produced squash; more than 'Pilgrim.

Very similar. Both varieties had trouble with cracking of fruit. 'Pilgrim' produced twice as many fruits.

Early Butternut ###### © NE

Both varieties had nice plants. 'Early Butternut' vines were looking and producing the best, but deer ate the fruits.

Early Butternut Pilgrim ©

'Early Butternut' germinated better and had healthier plants. It yielded earlier and had larger fruit. The yields of both varieties were poor and there was not much difference in the taste of their fruits.

Early Butternut Pilgrim

(i) (ii) NE

SE

Both were high producers; got about 60 total between the two varieties. 'Early Butternut' squash were all about the same size. Some of the 'Pilgrim' squash got huge.

'Early
Butternut' was
clearly
superior. It
germinated
better and had
healthier vines.
It matured
earlier and
produced more
fruits.

Best butternut winter squash varieties

Top choice
Early
Butternut

Strong performer Waltham

## Prefer 'Early Butternut' (continued)

I had to resow 'Pilgrim' as none of the seeds germinated in the first sowing. The plants were 2.5 weeks behind 'Early Butternut'. 'Pilgrim' had several fruits that split.

'Early Butternut' had a little better taste.

Early Butternut Pilgrim SC

I really liked them both. Had a very high yield. Fruits of the two varieties were the same size.

I had high hopes for these varieties. 'Early Butternut' set good but kept growing—not ripening. 'Early Butternut' fruits grew to 3–5 pounds each; 'Pilgrim' just a little smaller. Some of the squash fruits were too large for a family of two. I live in McLean County and will get frost in mid-September. This year I had 2 more weeks of growing season and still had to put 60% of the squash in the compost pile. I'm still looking for a variety that can mature in my short season.

## Prefer 'Pilgrim'

'Pilgrim' produced earlier and had higher yields.

Early Butternut © SC

Both varieties did very well, but 'Pilgrim' had a higher yield.

'Pilgrim' fruits were heavier with silky smooth flesh inside.

### **Conclusions**

'Early Butternut' germinated better and had healthier plants. It yielded earlier and produced larger fruits. Gardeners were pleased with its yields and strongly preferred it over 'Pilgrim'. 'Pilgrim' was recommended by most gardeners but showed no advantage over 'Early Butternut'.

Most gardeners recommended 'Pilgrim', but the variety was not superior for any trait.

# **Squash, Winter Orange Kabocha**

## **Varieties**

#### 'Mooregold'

90 days. Heirloom. Its orange flesh is dry, rich and sweet. Stores well. Vigorous vines.

#### 'Sunshine'

95 days. Bright scarlet flesh. Smooth, sweet and tender flesh. Vigorous, short vine.

#### **Data**

Gardeners at 10 sites submitted information.

	Moore-		
Trait	gold	Sunshine	Same
Germinated best	14%	57%	29%
Healthier plants	33	50	17
Harvested earlier	0	100	0
Higher yields	29	43	29
More attractive fruit	ts 33	67	0
Tasted better	25	75	0
Preference	14	86	
Recommend	14	71	
Mean score <sup>1</sup>	5.71	7.43	
Median score <sup>1</sup>	5.00	8.00	

 $<sup>^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Mooregold'

Mooregold	****	$\odot$	
Sunshine	<del>នាន់</del> ជាជាជា		SE

'Sunshine' came out strong, produced earlier, but gave me fewer and smaller squash. 'Mooregold' produced many more squash and in more varied colors.

#### Prefer 'Sunshine'

Mooregold	A A A A A	
Sunshine	****	© SE
(C 1: )		

'Sunshine' was the earlier variety.

Mooregold
Sunshine
SE

'Sunshine' was better tasting. Neither variety produced much. For how much space they took up (particularly 'Mooregold'), they weren't worth growing beyond the interest of growing something new.



Mooregold
Sunshine
SE

'Mooregold' did not produce any fruit.

orego shine		<b>南北</b> 公 <b>南南北</b>	SC

'Sunshine' produced more fruit and had better flavor.

Had hail damage on the leaves, so at the end of the season I had many immature and small fruits. 'Sunshine' squash had a bright red color—very attractive.

Mooregold ⊕ ⊕ ⊕ Sw SW

'Sunshine' outperformed 'Mooregold' in every way. Its plants were more vigorous, growing taller and more like a bush. Its fruits were brightly colored and had a nice shape. 'Mooregold' was slow to set fruit. Its fruits were smaller. I don't think it was fully ripe when we had a killing frost. There was a little green tint to the flesh and that definitely affected its flavor.

#### **Conclusions**

'Sunshine' was superior in all measured traits. It germinated better, grew better and produced higher yields. Its fruits were bright scarlet and attractive; its flesh was flavorful. 'Sunshine' ripened earlier. 'Mooregold' fruits did not fully ripen at many sites and very few gardeners recommended it.

'Sunshine' was superior in all traits. It grew better and produced higher yields. Its fruits were attractive and flavorful.

Best kabocha winter squash varieties

Top choice Sunshine

Strong performer Sweet Mama

# Watermelon, Red

#### **Varieties**

#### 'Sangria'

90 days. High quality. Deep red flesh is very sweet and refreshing. Melons grow 20 pounds.

#### 'Sweet Dakota Rose'

85 days. Sweet flesh with few seeds. Bred in N.D. Melons grow 15 pounds. Reliable.

#### Data

Gardeners at 30 sites submitted information.

	Sweet Dakota		
Trait	Sangria	Rose	Same
Germinated best	33%	21%	46%
Healthier plants	21	13	67
Matured earlier	46	33	21
Higher yields	39	30	30
More attractive fru	its <b>39</b>	26	35
Tasted better	27	36	36
Preference	52	48	
Recommend (©)	71	75	
Mean score <sup>1</sup>	7.17	7.58	
Median score <sup>1</sup>	8.00	8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

## Prefer 'Sangria'

Sangria Sweet Dakota Rose

They germinated nice and tasted good.

Sangria **★★★☆☆** ⊗ SE Sweet Dakota Rose

'Sangria' was very sweet and more flavorful. It can reach maturity in North Dakota. I produced 14 quality melons of 'Sangria' and 7 quality melons of 'Sweet Dakota Rose'. 'Sangria' melons were football shaped, 'Sweet Dakota Rose' melons were round.

Sangria Not impressed with either variety. Their

rinds were easily infected. I am sticking with 'Sugar Baby' and 'Crimson Sweet'.



Sangria Sweet Dakota Rose

'Sangria' ripened earlier and produced higher yields in more gardens.

Even though the germination rate was poor, the two 'Sweet Dakota Rose' plants produced 22 melons and the one 'Sangria' plant produced 7 melons and took over a very large area. 'Sweet Dakota Rose' melons were exceptionally large from about 20 pounds to 39 pounds. 'Sangria' melons averaged 18 to 20 pounds. I cut open five 'Sweet Dakota Rose' melons to test for ripeness over about a 3-week period from the end of August to late September and found none ripe until September 25. We are a 2-person household and prefer the smaller, oblong 'Sangria' over the larger, round 'Sweet Dakota Rose'. 'Sangria' was ripe about 10 days sooner even though germinated about 10 days later.

Sangria Sweet Dakota Rose



Both were extremely delicious; the best I have ever tasted. They ripened very close to the same day. 'Sangria' had a stronger watermelon flavor and was easier to cut up because of its elongated shape. I will definitely grow both of these varieties again!

Sangria Sweet Dakota Rose SE





'Sangria' melons were bigger and a tad juicier! Six seeds of each variety yielded 8 large melons of each variety—low yields but huge melons. They had hail in July which may have slowed the number of fruit maturing; still satisfied.

## **Best** red watermelon varieties

Top choice Sangria

## Strong performers

Sugar Baby Sweet Dakota Rose

## Prefer 'Sangria' (continued)

Sangria

Sweet Dakota Rose

Sangria' produced nine ripe melons

'Sangria' produced nine ripe melons compared to three for 'Sweet Dakota Rose'.

Sangria ©
Sweet Dakota Rose © SC

'Sangria' was delicious! Both were good.

Sangria © SC

Had the largest melon I have ever grown in

North Dakota. One of nature's creatures started to enjoy it three days before harvest.

Sangria

Sweet Dakota Rose

Sangria' was all around better. It produced

'Sangria' was all around better. It produced more and larger melons. 'Sweet Dakota Rose' was good but 'Sangria' was outstanding.

Sangria © SW Sweet Dakota Rose © SW I love the color of 'Sangria'. Both varieties were excellent tasting!

Sangria © SW

Sweet Dakota Rose SW

They were both very good. I will grow both

## **Prefer 'Sweet Dakota Rose'**

varieties in the future.

'Sangria' produced higher yields but 'Sweet Dakota Rose' had larger melons. 'Sweet Dakota Rose' tasted better—sweeter.

'Sweet Dakota Rose' produced three small melons that were delicious. 'Sangria' germinated but did not produce any fruit. Sangria Sweet Dakota Rose



Both varieties grew well and produced the same amount of melons at about the same time. 'Sweet Dakota Rose' melons were a bit larger and tasted better.

Sangria Sweet Dakota Rose SE

'Sangria' had a large core of a lot of black seeds through the center. 'Sweet Dakota Rose' had a few seeds but not many. The flavor was great on both. 'Sweet Dakota Rose' melons were rounder and smaller.

Sangria ★★★☆ ③
Sweet Dakota Rose ★★★☆ ② SE

Flavor is better with 'Sweet Dakota Rose' even though there were fewer melons produced. Both varieties produced low yields.

Sangria 

Sweet Dakota Rose 

NC

'Sweet Dakota Rose' ripened 2 weeks earlier. They were rounder, bigger and there were more of them. Its taste was comparable to 'Sangria', which produced oblong melons.

Sangria ©
Sweet Dakota Rose NC
'Sweet Dakota Rose' melons had a better

taste and shape.

Sangria

Sweet Dakota Rose SC 'Sweet Dakota Rose' melons were a little larger.

Sangria Sweet Dakota Rose SC SC

'Sweet Dakota Rose' produced fantastic and very tasty melons. 'Sangria' had healthy plants but only produced a single small melon.

'Sangria' is famous for its deep red and flavorful flesh, but more gardeners in this trial felt 'Sweet Dakota Rose' was sweeter and tasted better.

## **Prefer 'S. Dakota Rose'** (continued)

Sangria ###### © SC
Sweet Dakota Rose ##### © SC

Both varieties were very good. 'Sweet Dakota Rose' was very sweet. Everybody that I gave a sample to liked it better than 'Sangria'. 'Sangria' melons were bigger and there were more of them.

'Sangria' had a darker flesh and smaller seeds, but 'Sweet Dakota Rose' had a sweeter flavor and darker seeds. Both varieties produced better than any watermelon varieties I have tried before, but the overall size of the melons for both was about the size of a softball.

#### **Conclusions**

Gardeners enjoyed both varieties and were split on their preferences. More gardeners reported 'Sangria' ripened earlier and produced higher yields. Gardeners liked its oblong fruit shape, which is easy to slice. 'Sangria' is famous for its deep red and flavorful flesh, but more gardeners in our trial felt 'Sweet Dakota Rose' was sweeter and tasted better.

Gardeners
enjoyed both
varieties. They
were evenly
divided as to
which was
better.

# Watermelon, Yellow

#### **Varieties**

## 'Early Moonbeam'

78 days. A selection from 'Yellow Doll'. Open-pollinated type for seed saving. Proven performer.

#### 'Yellow Doll'

70 days. Very early hybrid. Bright yellow flesh is crisp and very sweet. Round melons grow 8 pounds.

#### Data

Gardeners at 15 sites submitted information.

Trait	Early Moonbear		Same
Germinated best Healthier plants Matured earlier Higher yields More attractive for Tasted better	18% 10 <b>67</b> 40 ruits 22	9% 10 22 <b>50</b> 33 <b>67</b>	73% 80 11 10 44 33
Preference Recommend (③) Mean score <sup>1</sup> Median score <sup>1</sup>	30 50 6.60 7.00	70 100 8.50 8.50	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Early Moonbeam'

Early Moonbeam	****	$\odot$	
Yellow Doll	食食食食品		NC

'Early Moonbeam' had very crisp meat, its melons averaged 8.5 pounds; one was 13 pounds. They were rounder with attractive striping. 'Yellow Doll' melons averaged 7 pounds and had a little sweeter taste. Both varieties germinated at 100%; 'Early Moonbeam' emerged 2 days earlier. 'Early Moonbeam' ripened first. Its vines produced 23 melons compared to 19 for 'Yellow Doll'; both were still producing when we had a killing frost. I took half of them to Farmers' Market and the customers all wanted more next week. The customers said they never had such good flavor and taste. They put their request in for next year!



Early Moonbeam \*\*\* © Yellow Doll \*\*\* © SC Both varieties grew nicely even though we had dry conditions.

Early Moonbeam \*\*\* ©
Yellow Doll \*\*\* © SW

'Early Moonbeam' melons looked nicer. Its vines produced first with good yield. Both varieties were excellent in taste!

'Early
Moonbeam'
ripened earlier.
It has been a
reliable
performer in
our trials for
years.

#### **Prefer 'Yellow Doll'**

Yellow Doll' had earlier and much larger melons. They were the largest yellow watermelons we have ever grown. Three of them weighed 16–18 pounds. 'Early Moonbeam' melons were smaller and with more seeds. Both varieties were started in the house.

Yellow Doll' germinated and produced a yield. 'Early Moonbeam' did not germinate.

Early Moonbeam ★★★★☆ ③
Yellow Doll ★★★★☆ ⑤ SE

Both varieties were excellent. I love 'Yellow Doll'. Its rind was less likely to split in the field.

Best yellow watermelon

Top choice Yellow Doll

varieties

Strong performer

Early Moonbeam

## **Prefer 'Yellow Doll'** (continued)

'Yellow Doll' melons were larger. The melons of both varieties tasted about the same with an edge going to 'Yellow Doll'.

There was just no doubt the 'Yellow Doll' melons were a lot sweeter. 'Early Moonbeam' vines looked great all summer. They produced at least 8 more melons. These melons were bigger and more uniform in shape.

'Yellow Doll' was bigger and tasted better. Fruits of 'Early Moonbeam' split open when we received an inch of rain after a dry spell but 'Yellow Doll' did not. Early Moonbeam ★★★★☆ ☺ Yellow Doll ★★★★☆ ☺ SC

Early Moonbeam' ripened a week earlier, but 'Yellow Doll' melons were larger and impressed our guests. The melons of both varieties were sweet near the rind but the texture was a little better for 'Yellow Doll'. Although we enjoyed these yellow watermelons, we preferred the red varieties ['Sangria' and 'Sweet Dakota Rose'] we grew last year in this program.

#### **Conclusions**

Gardeners liked both varieties, but most preferred 'Yellow Doll'. 'Yellow Doll' melons tasted much sweeter, and its vines were more productive at more sites. Its melons were less likely to split open in the garden. Every gardener recommended it. 'Early Moonbeam' ripened earlier and has been a reliable variety in our trials for years.

Every gardener recommended 'Yellow Doll'. Its vines were more productive and its melons tasted much sweeter.

#### **Key to Site Reports** (reports are presented from east to west) Recommendation to MN = Minnesota NW NC NE other gardeners NE = Northeast Ratings (ves or no) SE = Southeast (1 to 10)Location NC = North Central SC = South Central Variety A NW = Northwest Variety B NC Comments SW = Southwest 'Variety A' germinated better and produced MB = Manitoba the first harvest. We loved its taste. 'Variety SD = South Dakota B' produced higher yields but was tasteless. SC SW SE MT = Montana

# Cosmos, Pink

#### **Varieties**

#### 'Apollo Pink'

80 days. New variety with 4-inch, ruffled blooms. Bushy plants tolerate heat and diseases. Height: 22 inches.

#### 'Sonata Pink'

80 days. Compact, 2-foot plants are covered with 3-inch daisy-like flowers all summer. Resists heat.

#### Data

Gardeners at 12 sites submitted information.

Trait	Apollo Pink	Sonata Pink	Same
Germinated best	42%	33%	25%
Healthier plants	17	33	<b>50</b>
Bloomed earlier	36	36	27
More blooms	40	30	30
Prettier in garden	20	20	<b>60</b>
Better cut flower	29	0	<b>71</b>
Preference	45	55	
Recommend	<b>75</b>	75	
Mean score <sup>1</sup>	7.33	7.58	
Median score <sup>1</sup>	8.00	9.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Apollo Pink'

Apollo Pink	****	$\odot$	
Sonata Pink	<b>常常常</b> 论论		MN

'Apollo Pink' produced more flowers. Very showy.

Apollo Pink	<b>未完全</b> 的	$\odot$	
Sonata Pink	<b>自由自由</b> 自	8	NE
'Apollo Pink' blo	omed earlier.		

Apollo Pink	****	$\odot$	
Sonata Pink	自由自由的	$\odot$	SE

'Apollo Pink' produced earlier blooms and is slightly more colorful.

Apollo Pink Sonata Pink	<b>គាត់</b> ជាជាជា គាត់ជាជាជា	SC
(A 11 D: 1.1.1	11 0	

'Apollo Pink' had larger flowers.



Apollo Pink

Sonata Pink

Sonata Pink

SC

Both varieties germinated at near 100%.

'Sonata Pink' was a bit slow off the mark
and at first only produced a few flowers. By

and at first only produced a few flowers. By the end of the summer it had caught up to 'Apollo Pink' and it was hard to tell them apart. As of today (September 23), they are both still going strong.

### Prefer 'Sonata Pink'

Apollo Pink	<b>含含含含</b> 含	$\odot$	
Sonata Pink	****	$\odot$	MN

Both varieties were lovely. 'Sonata Pink' bloomed longer than Apollo Pink', however 'Apollo Pink' produced more blossoms. 'Sonata Pink' plants looked a little better and it produced blossoms longer, making it more desirable.

Both varieties did well in spite of heat and drought conditions. The plants were short. I liked the pink color. 'Sonata Pink' had the largest blooms. 'Apollo Pink' was slower to bloom but bloomed for a longer time.

Apollo Pink
Sonata Pink

No comments.

Apollo Pink ★★★★ ② NC

'Sonata Pink' flowers lasted longer. This trial was grown in a high tunnel.

'Apollo Pink'
had an edge in
germination
and produced
more blooms
at more sites.

# Best cosmos varieties

Top choice Sonata

# Strong performers

Double Click Picotee Psyche Rubenza

#### **Prefer 'Sonata Pink'** (continued)

'Sonata Pink' was more vigorous.

Apollo Pink
Sonata Pink

© SC

'Sonata Pink' germinated better, which led to more plants and more blooms. Its plants were bigger and 4–5 inches taller. Both varieties were blooming into October.

#### **No Preference**

Very disappointed in both varieties. Neither variety had very many flowers and the ones they did have were small and the petals seemed to be irregular ... not like the beautiful ones I've gotten from you before. They were watered regularly.

#### **Conclusions**

Gardeners like both varieties and rated them highly. Both varieties grew well, and their flowers were lovely in the garden. No clear and consistent differences were detected between the varieties across sites. 'Apollo Pink' had an edge in germination and produced more blooms. 'Sonata Pink' had an edge in health and vigor. Most gardeners preferred 'Sonata Pink'.

'Sonata Pink'
was preferred
by more
gardeners. It
showed an
edge in health
and vigor
across sites.

# **Cosmos, Striped**

#### **Varieties**

#### 'Candystripe'

80 days. Blush white petals edged in crimson. No two blooms are alike. Grows 42 inches.

#### 'Picotee'

90 days. Pure white petals are edged in rosy red. Bushy plants grow 48 inches.

#### **Data**

Gardeners at 30 sites submitted information.

Trait	Candy- stripe	Picotee	Same
Germinated best	24%	20%	<b>56</b> %
Healthier plants	28	8	64
Bloomed earlier	43	24	33
More blooms	25	25	50
Prettier in garden	26	30	43
Better cut flower	24	18	59
Preference	42	58	
Recommend	63	71	
Mean score <sup>1</sup> Median score <sup>1</sup>	6.74 7.00	6.39 <b>7.00</b>	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Candystripe'

Candystripe	<b>含含含含</b> 价	$\odot$	
Picotee	<b>食食食</b> 給給	$\odot$	MN

'Candystripe' blooms had more uniform coloring—white flower with hot pink outline. Its blooms lasted longer in a vase. 'Picotee' blooms varied in color and some were solid colored.

Candystripe	<b>នាំ</b> ជាជាជាជា	$\odot$	
Picotee	<b>ដ</b> ារាជាជាជា	$\odot$	MN

I did not like either of these varieties. The bushes grew about 4 feet tall—too much foliage. They had lots of flowers, but they were small and did not show. It was a lot of work to pull out the plants at the end of the season.



Picotee	1-05050505	NE
'Candystripe' had	better germin	ation. Taller,
stronger plants an	d more flowe	r buds. Its
flowers were small	ler. As a cut fl	lower, it
lasted only 1 day b	efore curling	up.
'Candystripe' was	the better var	iety but I've
grown cosmos bet	fore that were	superior.

Candystripe	食食食食物		
Picotee	南南南南沿	$\odot$	SE

Both varieties were beautiful—beautiful flowers. 'Candystripe' was slightly better. Its plants were slightly taller.

Candystripe	***	$\odot$	
Picotee	食食食食物	$\odot$	SE

'Candystripe' produced more flowers but the varieties did not seem very different to me.

Candystripe Picotee	<b>含含含含</b> 含 含含含含含	SE
<b>3</b> T		

No comments.

Candystripe



Planted in a square-foot garden.

Candystripe	****	$\odot$	
Picotee	<b>食食食</b> 給給	$\odot$	SC

'Candystripe' had beautiful flowers. Looked like they were hand painted.

'Candystripe' bloomed earlier and showed greater vigor in many gardens.

# Best cosmos varieties

Top choice Sonata

# Strong performers

Double Click Picotee Psyche Rubenza

## Prefer 'Candystripe' (continued)

'Candystripe' had better color.

'Picotee' did not germinate and 'Candystripe' did not bloom.

Candystripe
Picotee SW

'Candystripe' plants were much taller, thicker and had more blossoms.

#### Prefer 'Picotee'

Candystripe © MN

Both varieties didn't have the best germination. 'Picotee' had more variation so the colors did stand out a little more. Both varieties were in good health and had no disease problems. 'Picotee' had more variations in color, so I liked it more in the garden setting.

Candystripe © MN

These two cosmos are very similar but 'Picotee' had more colorful blooms.

'Picotee' had more colorful blooms. Both varieties had tremendous amounts of foliage compared to the amounts of flowers. The plants tipped in the wind easily.

Picotee' was prettier. 'Candystripe' tolerated the early frost better. I had an invasion of beetles that destroyed most flowers.

Candystripe
Picotee

\*\*Time State St

Picotee' produced more flowers.

Candystripe
Picotee

The 'Candystripe' plants got so big that they

'Picotee' had earlier blooms, lovely twotoned pinks and picotee.

fell over. Grown in a high tunnel.

Candystripe
Picotee

The colors of Picotee' were more vibrant. I

was disappointed in the flowers this year.
They didn't seem to grow very well. Don't know if it was the location or just not the year for them.

Candystripe © NW

'Picotee' had more flowers.

'Picotee' had larger, bushier plants with more flowers.

'Picotee' had more purple highlights, which I prefer.

#### **No Preference**

Candystripe Picotee Picotee SC

I was very disappointed. Neither variety flowered at all. Huge plants, lots of foliage, no flowers.

Neither variety was very pretty. Small, uneven flowers.

#### **Conclusions**

Gardeners liked both varieties. Their plants were healthy and bushy. Their blooms were beautiful in the garden. Most gardeners preferred 'Picotee'. They liked the vibrancy of its blooms. 'Candystripe' showed an edge in earliness and vigor.

Most gardeners preferred 'Picotee'. They liked the vibrant colors of its blooms.

# Cosmos, White

#### **Varieties**

#### 'Double Click White'

80 days. Frilly double and semi-double blooms. Great for cutting. Ferny plants grow 44 inches.

#### 'Psyche White'

80 days. Huge, semi-double blooms with pure white petals and golden centers. Grows 52 inches.

#### **Data**

Gardeners at 14 sites submitted information.

Trait	D. Click White	Psyche White	Same
Germinated best Healthier plants Bloomed earlier More blooms	27% 10 43 22	18% 20 0 33	55% 70 57 44
Prettier in garden Better cut flower	30 29	10	60 71
Preference Recommend	70 100	30 80	
Mean score <sup>1</sup> Median score <sup>1</sup>	<b>9.00</b> 9.00	8.30 8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### **Prefer 'Double Click White'**

Double Click White \*\*\*\* © NE Psyche White

These varieties were very similar. 'Double Click White' germinated better and bloomed earlier.

Double Click White Psyche White





'Double Click White' was less ferny-more noticeable flowers. Its flowers were fuller looking.

Double Click White Psyche White



These varieties were very similar. This was a hard season for trials.



Double Click White Psyche White





Both varieties were very attractive and really added to the garden. They were great as cut flowers. 'Double Click White' had more attractive flowers.

Double Click White Psyche White





'Double Click White' was beautiful and bloomed for a long time.

Double Click White Psyche White



'Double Click White' had slightly more petals, but otherwise both varieties were

Double Click White Psyche White

pretty equal.





'Double Click White' had a "fluffier" flower. 'Psyche White' was more like a common cosmos.

# **Prefer 'Psyche White'**

Double Click White Psyche White





If I would not have had the rows of varieties marked, I would not have been able to tell them apart! They were beautiful. 'Psyche White' had a few more flowers.

Double Click White Psyche White



'Psyche White' was healthier, produced more flowers and looked better in the garden.

very impressive. It bloomed quickly and every gardener recommended it.

'Double Click

White' was

## **Best cosmos** varieties

Top choice Sonata

### Strong performers

Double Click Picotee Psyche Rubenza

### Prefer 'Psyche White' (continued)

Psyche White





Both took a long time to mature, but once they matured, they lasted a nice long season. 'Psyche White' was slightly sturdier and produced a few more flowers. Both varieties were beautiful, hardy additions to the garden. Both lasted well through several frosts.

#### **No Preference**

Double Click White Psyche White







Both varieties were so beautiful in the garden. They cheered me up just seeing them. They were tall with strong stalks. Neither variety seemed to make a good cut flower. It was tough finding bunches where more than one flower was blooming nicely on a stalk.

#### **Conclusions**

Gardeners rated both varieties very highly. Their plants were healthy and produced lots of pure white blooms. 'Double Click White' was especially impressive. Its flowers were predominantly double and stood out more against its ferny bushes. 'Double Click White' bloomed earlier and every gardener in the trial recommended it. 'Psyche White' grew vigorously, bloomed prolifically and was highly recommended by gardeners.

'Psyche White' grew vigorously and bloomed prolifically.

# **Sunflower, Bicolor**

#### **Varieties**

#### 'Helios Flame'

50 days. Golden petals with a mahogany inner ring. Stalks are filled with blooms. Height is 45 inches.

#### 'Ring of Fire'

70 days. Award winning, branching type. Nearly pollenless blooms for fall displays. Grows 45 inches tall.

#### **Data**

Gardeners at 14 sites submitted information.

Trait	Helios Flame	Ring of Fire	Same
Germinated best Healthier plants Bloomed earlier More blooms Prettier in garden Better cut flower	45% 50 82 40 40	36% 10 18 40 40 60	18% 40 0 20 20 20
Preference Recommend Mean score <sup>1</sup> Median score <sup>1</sup>	64 70 7.70 8.00	36 50 6.70 7.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### **Prefer 'Helios Flame'**

Helios Flame	****	$\odot$	
Ring of Fire	<b>食食食食</b> 食	$\odot$	SE

'Helios Flame' grew 2–3 feet taller and bloomed earlier. I can easily see them from the house.

Helios Flame	<b>គំគំ</b> ជាជាជា	$\odot$	
Ring of Fire	<b>គំ</b> ជាជាជាជា		SE

'Ring of Fire' germinated slightly earlier, but 'Helios Flame' was much more prolific. Neither bloomed very long in the garden, and neither of their flowers were brightly colored. Their flowers wilted quickly upon cutting. 'Helios Flame' grew taller. 'Ring of Fire' was healthy but mostly stayed as a green stalk with few, short-lived blooms.



Helios Flame	南南南南岸	$\odot$	
Ring of Fire	<b>នាំ</b> នាំជាជាជា		NC
'Helios Flame' had	l huge plants	with	
beautiful flowers			

Helios Flame	<b>含含含含</b> 含	$\odot$	
Ring of Fire	<b>自由自</b> 论位		NW

'Helios Flame' grew taller and its flowers were bigger. Rabbits ate all but two plants of each variety.

Helios Flame	食食食食物	$\odot$	
Ring of Fire	<b>含含含</b> 价值		SW

'Helios Flame' plants withstood the wind better than 'Ring of Fire'. It produced more flowers and bigger flowers. 'Helios Flame' was an outstanding bicolor sunflower and performed better in every way. All bicolor sunflowers are beautiful; but if space is limited, 'Helios Flame' is the best choice.

'Helios Flame' produced a flower 2–3 times bigger, but fewer of them. I like them big!

## **Prefer 'Ring of Fire'**

I prefer 'Ring of Fire' for its smaller-sized plant.

Most gardeners preferred 'Helios Flame'. It bloomed quickly, and its fiery colors made a bold statement in gardens.

# Best bicolor sunflower varieties

**Top choice** Strawberry Blonde

# Strong performers

Helios Flame Rio Carnival

## Prefer 'Ring of Fire' (continued)

Helios Flame
Ring of Fire

\*\*This is a second of the secon

I liked the coloring and smaller heads of 'Ring of Fire'. It bloomed a couple weeks later but produced twice as many flowers. Its stalks were more compact. Both varieties germinated well and were healthy.

'Ring of Fire' grew to 45 inches and produced abundant, colorful flowers. The contrasting colors were very attractive. 'Helios Flame' seedlings were more robust, grew to at least 8 feet tall, and bloomed first. Its flowers were mostly yellow, barely qualifying as bicolor. Both varieties produced lots of flowers.

Helios Flame
Ring of Fire

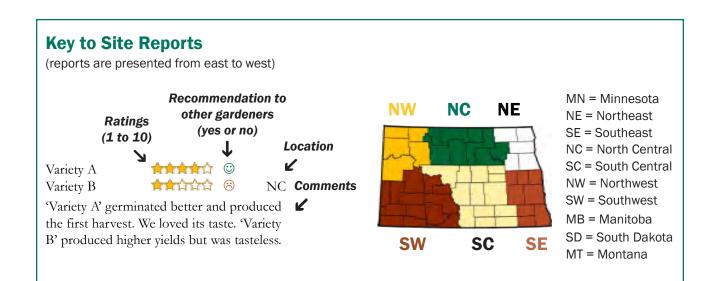
\*\*THE INTERIOR OF SC

'Helios Flame' did not bloom.

#### **Conclusions**

Most gardeners preferred 'Helios Flame'. It bloomed quickly, and its fiery colors made a bold statement in gardens. Its stalks were healthy and grew vigorously. 'Ring of Fire' had a more compact plant, bloomed 2 weeks later and produced more flowers. Its performance was underwhelming—only half of our gardeners recommended it.

'Ring of Fire' had a more compact plant, yet it produced more flowers.



# **Sunflower, Double-Petal**

#### **Varieties**

#### 'Golden Cheer'

70 days. Yellow, mum-like flowers with light centers. Long stems and lasts long in a vase. Grows 66 inches tall.

#### 'Goldy Double'

90 days. Golden, nearly pollenless blooms with green-to-yellow centers. Branching. Grows 66 inches tall.

#### **Data**

Gardeners at 5 sites submitted information.

Trait	Golden Cheer	,	Same
Germinated best	0%	40%	60%
Healthier plants	0	0	100
Bloomed earlier	0	25	75
More blooms	0	25	75
Prettier in garden	25	0	75
Better cut flower	25	0	75
Preference	50	50	
Recommend	100	100	
Mean score <sup>1</sup>	8.00	8.00	
Median score <sup>1</sup>	8.50	7.50	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### **Prefer 'Golden Cheer'**

Golden Cheer Goldy Double SC

I liked the color and look of 'Golden Cheer' flowers.

'Golden Cheer' had prettier flowers.



# **Prefer 'Goldy Double'**

Golden Cheer \*\*\* © SE

'Goldy Double' came up sooner and grew big.

I loved the brush-like look of the flower head.

#### **Conclusions**

The few gardeners in this trial enjoyed these fluffy sunflowers. Every gardener recommended both varieties and they were split on their preferences. 'Goldy Double' germinated especially well, but no clear distinctions were detected between the varieties.

Gardeners
enjoyed these
fluffy flowers.
Every gardener
recommended
both varieties.

Best doublepetal sunflower varieties

Top choice
Greenburst

Strong performer Goldy Double

113

# **Sunflower, Dwarf**

#### **Varieties**

#### 'Big Smile'

55 days. Golden flowers for borders or containers. Branching type. Grows 20 inches.

#### 'Orange Hobbit'

55 days. Compact, 24-inch plants are covered with delightful, orange blooms. Pollenless.

#### **Data**

Gardeners at 16 sites submitted information.

Trait	Big Smile	Orange Hobbit	Same
Germinated best Healthier plants Bloomed earlier More blooms	0% 18 10 9	45 60 64	55% 36 30 27
Prettier in garden Better cut flower Preference Recommend	30 30 42 45	60 70 58 73	10 0
Mean score <sup>1</sup> Median score <sup>1</sup>	6.27 6.00	7.73 8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# **Prefer 'Big Smile'**

Big Smile	<b>自由自由</b> 自	$\odot$	
Orange Hobbit	食食食品品		NE

When I'm planting flowers, attractiveness in the garden is a very high priority. I preferred the smaller size and less coarseness of Big Smile'.

Big Smile	****	$\odot$	
Orange Hobbit	<b>自由自由</b> 自	$\odot$	SE
(T): 0 :11 1 1	11 1		

'Big Smile' produced better and was more showy.

Big Smile 食食食食食 © SC Orange Hobbit

Both varieties had absolutely gorgeous flowers. I've never gotten so many compliments! Everyone thought they were from a florist! I prefer the size and symmetry of 'Big Smile.'



Big Smile Orange Hobbit **★★★☆☆** ⊗ SC

I love 'Big Smile' even though it is short. It's a sturdy plant that produces lots of wellnamed flowers. The flowers of 'Orange Hobbit' tended to droop and gave it a wilted appearance—it wasn't! Both varieties germinated well and produced lots of flowers.

Big Smile 食食食品品 Orange Hobbit

SW

'Big Smile' looked like miniature sunflower plants. 'Orange Hobbit' side flowers brought a lot more color to the garden and a vase. Its plants reminded me of ditch weeds and from a distance looked like them.

# **Prefer 'Orange Hobbit'**

食食食食食。 Big Smile MN Orange Hobbit

I loved 'Orange Hobbit'. Lots of beautiful flowers—lasted longer. It germinated earlier, grew taller (4 feet), produced many flowers on each stem, and had the traditional sunflower look. 'Big Smile' was much shorter (2 feet) and could be planted in the front row of a garden.

Big Smile Orange Hobbit SE

'Big Smile' resembled a field sunflower—too large for a vase.

'Big Smile' had a more compact plant and larger flower. It looked like a miniature version of a classic sunflower.

## **Best dwarf** sunflower varieties

Top choice Orange

Strong performer

> Rio Carnival Sunny Smile Solar

Hobbit

Chocolate Gold

## **Prefer 'Orange Hobbit'** (continued)

Big Smile ⊕ ★★★★★ ⊕ SC SC

'Orange Hobbit' was a taller plant and its heads formed earlier. It was more attractive in the garden for a longer period of time.

'Orange Hobbit' had stronger stems and smaller flowers. The plants stood upright in the garden. 'Big Smile' flowers were too big. They drooped in a vase.

Big Smile © SC

'Orange Hobbit' had lots of smaller flowers and looked better in a vase and in our garden. 'Big Smile' had fewer flowers but huge heads. It looked like a miniature version of one from a farmer's field.

Big Smile
Orange Hobbit

Orange Hobbit' was a better performer overall.

#### **Conclusions**

Gardeners preferred 'Orange Hobbit'. It germinated better, was healthier and bloomed earlier than 'Big Smile'. Its branches were filled with flowers, adding lots of color to the garden. 'Orange Hobbit' excelled as a cut flower. 'Big Smile' had a more compact plant and larger flower. Some gardeners felt it looked more refined and symmetrical, much like a miniature version of a classic sunflower grown in a farmer's field.

'Orange
Hobbit' grew
better and
bloomed
earlier. Its
branches were
filled with
colorful
flowers.

# **Sunflower, Red**

#### **Varieties**

#### 'Moulin Rouge'

72 days. Popular variety with deep burgundy petals and dark discs. Pollenless. Grows 70 inches tall.

#### 'Red Hedge'

62 days. Dark burgundy, pollenless, long lasting blooms. Ragged petals add a wild look. Grows 53 inches tall.

#### **Data**

Gardeners at 10 sites submitted information.

Trait	Moulin Rouge	Red Hedge	Same
Germinated best Healthier plants Bloomed earlier More blooms Prettier in garden Better cut flower	44% 63 50 57 63	11% 0 25 14 13 0	44% 38 25 29 25 33
Preference Recommend Mean score <sup>1</sup> Median score <sup>1</sup>	88 100 8.75 9.50	13 63 7.00 7.50	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# Prefer 'Moulin Rouge'

Moulin Rouge ★★★★ ⑤ Red Hedge ★★★★ ⑥ MN

These varieties were similar, but I prefer 'Moulin Rouge' because of its hardiness and darker flower head. Both varieties looked very healthy and 'Moulin Rouge' was about 1 foot taller. 'Red Hedge' bloomed first. Both varieties produced multiple flower heads. The flowers of 'Moulin Rouge' lasted longer. I planted these varieties behind white zinnias and the color combo was stunning! I will grow these again!



Moulin Rouge Red Hedge ត់ត់ត់សំជ ត់ត់ត់ជំជំ

 $\odot$ 

© SE

'Moulin Rouge' flowers were larger, brighter in color, had fewer petals, and were damaged less by bugs. Its plants were healthier.

Moulin Rouge ★★★☆☆ ⑤ Red Hedge ★★☆☆☆ ⑥ NC

'Red Hedge' looked sickly. This trial was grown in a high tunnel.

Moulin Rouge 
Red Hedge 

★★★★ ⑤ SC

'Moulin Rouge' stalks were taller and much more robust in the garden. Its flowers were longer lasting in the garden and vase. These flowers were a moody deep burgundy with a hint of yellow; just stunning. I had one 'Moulin Rouge' plant that had one branch of yellow flowers, while the other branches on the same plant were deep red. Really interesting!

Moulin Rouge
Red Hedge

SC

No comments.

Moulin Rouge

SC

SC

I have grown 'Moulin Rouge' in the past and have now confirmed my belief that there is no better red sunflower. 'Moulin Rouge' is a very tall and impressive plant. It has strong stems, beautiful large flowers, and continued blooming late into the fall. 'Red Hedge' might be preferable in small spaces. It grew well but is just not as impressive.

'Moulin Rouge'
was rated
higher for all
traits and was
recommended
by every
gardener. Its
burgundy
petals were
stunning.

Best red sunflower variety

**Top choice**Moulin Rouge

### Prefer 'Moulin Rouge' (continued)

'Moulin Rouge' had higher flowers.

### Prefer 'Red Hedge'

Moulin Rouge ★★★★ ② MT

The flower centers of 'Red Hedge' were largest—pretty with a sparkle. Both varieties produced lots of flowers.

#### **Conclusions**

'Moulin Rouge' was outstanding. It outperformed 'Red Hedge' in all traits and was recommended by every gardener. Its deep burgundy flowers were stunning and served as a beautiful background for other flowers. 'Moulin Rouge' bloomed prolifically, had sturdy stems and was a good cut flower. 'Red Hedge' was recommended by most gardeners but was overshadowed by its competitor.

'Red Hedge'
was
recommended
by most
gardeners but
was not
exceptional in
any way.

#### **Key to Site Reports** (reports are presented from east to west) Recommendation to MN = Minnesota NW NC NE other gardeners NE = Northeast Ratings (ves or no) SE = Southeast (1 to 10)Location NC = North Central SC = South Central Variety A NW = Northwest NC Comments Variety B SW = Southwest 'Variety A' germinated better and produced MB = Manitoba the first harvest. We loved its taste. 'Variety SD = South Dakota B' produced higher yields but was tasteless. SC SW SE MT = Montana

# **Sunflower, Strawberry**

#### **Varieties**

#### 'Gypsy Charmer'

60 days. Petals have a lemon base, red midband and lemon tips. Pollenless. Branching type. Height is 60 inches.

#### 'Strawberry Blonde'

55 days. Ruby red petals with light tips. Easy to grow and great for cutting. Grows 66 inches tall.

#### **Data**

Gardeners at 21 sites submitted information.

Trait	Gypsy Charmer	Straw. Blonde	Same
Germinated best Healthier plants Bloomed earlier More blooms Prettier in garden	11% 19 7 6 13	39% 56 73 65 47	50% 25 20 29 40
Preference Recommend Mean score <sup>1</sup> Median score <sup>1</sup>	18 18 47 5.82 7.00	64 82 88 7.59 8.00	18

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# **Prefer 'Gypsy Charmer'**

Gypsy Charmer Strawberry Blonde

'Gypsy Charmer' had beautifully rich colored flowers. There were not many flowers, and the petals tended to fall off easily. However, the blooms that were there were stunning. I'm suspecting the drought and perhaps not enough watering had something to do with the fragility of the petals since we observed this in more than one sunflower trial.

Gypsy Charmer ##### ⊕ SC Strawberry Blonde

I prefer 'Gypsy Charmer' because of the deeper red color of its flower—very visually appealing. 'Strawberry Blonde' germinated sooner, grew very well and I prefer its taller



height. Both varieties looked attractive in the garden. Both were good as cut flowers; my arrangements lasted about 1.0-1.5 weeks.

Gypsy Charmer  $\odot$ Strawberry Blonde SD 'Gypsy Charmer' had a prettier, redder flower. 'Strawberry Blonde' had a much

### **Prefer 'Strawberry Blonde'**

Gypsy Charmer MN © MN Strawberry Blonde

'Strawberry Blonde' germinated better and had nice, strong stems. I loved its bicolored flower heads. It was a beautiful cut flower. Its small heads and strong, slim stems were perfect for vases and bouquets. 'Gypsy Charmer' had some plants germinate but then they died-not sure why.

Gypsy Charmer Strawberry Blonde

thicker stalk.

\*\*\*\*\*\* © NE



SE

I prefer 'Strawberry Blonde' for its blooms. The coloring was very striking!

Gypsy Charmer Strawberry Blonde

'Strawberry Blonde' showed excellent emergence and vigor. Bloomed earlier and produced more blooms.

Gypsy Charmer

Some gardeners liked the deeper red color of 'Gypsy Charmer', but the variety lacked vigor.

# **Best bicolor** sunflower varieties

Top choice Strawberry Blonde

Strong performers

> Helios Flame Rio Carnival

#### Prefer 'Straw. Blonde' (continued)

Strawberry Blonde \*\*\*\*\* © SE 'Strawberry Blonde' had more flowers. Its flowers had better color.

Gypsy Charmer Strawberry Blonde © SE

I prefer 'Strawberry Blonde' for its lighter strawberry coloring, more flowers and earlier bloom. Its flowers were smaller and bloomed on July 14. 'Gypsy Charmer has darker coloring, with larger and fewer flowers, and bloomed on July 20.

Gypsy Charmer
Strawberry Blonde

Strawberry Blonde

ONC

Both grew to about 6.5 feet tall. Wind made them bend over some so they did not look as nice. 'Strawberry Blonde' stems seemed a little stronger. It had a prettier blossom that

Gypsy Charmer
Strawberry Blonde
Strawberry Blonde' had healthier plants.
This trial was grown in a high tunnel.

was somewhat larger.

Gypsy Charmer
Strawberry Blonde

\*\*Trawberry Blonde\*\*

SC

SC

'Gypsy Charmer' did not perform well. It had spindly stalks and few flowers. I expected both varieties to be shorter with larger flowers, so I wasn't impressed with either one.

Gypsy Charmer
Strawberry Blonde

Strawberry Blonde

'Strawberry Blonde' had very nice, full flowers that looked good in the garden. The stalks were taller and fuller—most had over 10 flowers. They bloomed 2 weeks earlier and lasted longer as a cut flower. Its flowers were bigger.

Gypsy Charmer
Strawberry Blonde
'Gypsy Charmer' did not germinate.

Gypsy Charmer

Strawberry Blonde \*\* Strawberry Blonde' had a lot more flowers

'Strawberry Blonde' had a lot more flowers and larger flowers. Its stalks were slightly smaller and bloomed 1–2 weeks earlier. Neither variety was great as a cut flower, as their largest heads had very short stems.

Gypsy Charmer Strawberry Blonde



'Strawberry Blonde' germinated better. Its stalks were taller, healthier and produced more flowers. It bloomed almost 3 weeks earlier. Its taller, healthier stalks and pale flowers looked better in the garden compared to 'Gypsy Charmer'. 'Gypsy Charmer' did not germinate well. Its plants were smaller and developed brown spots on its stems and leaves. Its stems broke off faster and did not hold up as well. I preferred the color of its flowers but did not get many. I would like to replant this trial again to see if the health problems reappear.

Gypsy Charmer Strawberry Blonde



© NW

These sunflowers were planted on a rocky dike. 'Strawberry Blonde' did quite well, but 'Gypsy Charmer' did not do as well.

**No Preference** 

I thought they would be brighter red; almost looked like a normal sunflower.

#### **Conclusions**

'Strawberry Blonde' excelled in this trial. Its stalks were sturdy, healthy and filled with flowers. It bloomed earlier and lasted long as a cut flower. Gardeners were enchanted by the beauty of its flowers. Some gardeners preferred the deeper red color of 'Gypsy Charmer', but this variety was less vigorous and had fewer flowers.

'Strawberry
Blonde' stalks
were sturdy,
bloomed
quickly and
became filled
with flowers.
Its flowers
were
enchanting in
the garden and
in
arrangements.

# **Sunflower, Tall**

#### **Varieties**

#### 'American Giant'

72 days. Very sturdy stalks grow up to 15 feet. One-foot blooms filled with seeds for wildlife. Branching type.

#### 'Titan'

72 days. Giant, 24-inch-wide blooms filled with large seeds. Stalks grow 13 feet.

#### Data

Gardeners at 11 sites submitted information.

Trait	American Giant	Titan	Same
Germinated best	25%	13%	63%
Healthier plants	38	0	63
Bloomed earlier	0	20	80
Grew taller	13	50	38
Prettier in garden	33	17	50
More blooms	17	17	67
More seeds	33	17	50
Better quality seeds	14	43	43
Preference	50	50	
Recommend	86	86	
Mean score <sup>1</sup>	8.17	7.83	
Median score <sup>1</sup>	8.50	7.50	
Median height (ft)	10.00	10.50	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'American Giant'

American Giant	<b>自由自由</b> 自	$\odot$	
Titan	<b>自由自</b> 由自	$\odot$	NE

I preferred 'American Giant' for its slightly larger heads. I preferred the seed color of 'Titan', but its plant did not perform as well.

American Giant	<b>食食食食</b> 食	$\odot$	
Titan	***	$\odot$	SE

These varieties were similar in flower head size and height, which was 9 to 10 feet. Birds enjoyed their seeds equally. These varieties would be excellent accent plants to be grown in the corner of a garden or flower bed. The stalks of 'American Giant' were sturdier.



American Giant Titan



NC

'American Giant' had a stronger overall plant-stalk and head. Its larger heads led to more seeds. Some 'Titan' plants blew over. Both varieties germinated at near 100%.

#### Prefer 'Titan'

American Giant	***	$\odot$	
Titan	<b>自由自</b> 公公	$\odot$	SE

'Titan' stalks were consistently taller. We used these in the back of our garden to add height and additional privacy from neighbors. Both worked well, grew tall and flowered well, although many heads on both varieties had smaller flowers. Some flower heads didn't come to maturity but turned black and shriveled up.

American Giant Titan





SW

'Titan' was so fun to grow with several flowers growing in excess of 18 inches across. They were also greater than 10 feet tall. It performed better overall and was a showstopper at the back of our garden.

#### **Conclusions**

Gardeners liked both varieties and were split on their preferences. Both varieties grew about 10 feet tall and were attractive as background plants in the garden. 'American Giant' stalks were sturdy, and their flowers produced lots of seeds. More gardeners felt the seeds of 'Titan' were of higher quality.

'American Giant' produced lots of seeds, but more gardeners felt the seeds of 'Titan' were of higher quality.

> **Best giant** sunflower varieties

Top choice American Giant

Strong performer Titan

# Zinnia, Orange

#### **Varieties**

#### 'Giant Dahlia Orange'

82 days. Double, semi-double and single blooms. Great in the garden and for cutting. Grows 45 inches tall.

#### 'Orange King'

77 days. Burnt orange blooms on long stems for cutting. Stunning as a garden flower. Height is 38 inches.

#### **Data**

Gardeners at 23 sites submitted information.

Trait	Giant D.	0	Same
11211	Orange	King	Same
Germinated best	17%	13%	<b>70</b> %
Healthier plants	13	17	70
Bloomed earlier	18	32	50
More blooms	22	30	48
Prettier in garden	17	13	70
Better cut flower	21	16	63
Preference	45	55	
Recommend	91	91	
Mean score <sup>1</sup>	7.91	8.48	
Median score <sup>1</sup>	9.00	9.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

# **Prefer 'Giant Dahlia Orange'**

Giant Dahlia Orange MN © MN Orange King

I liked the larger flowers of 'Giant Dahlia Orange'. It germinated first and showed more branching at first. 'Orange King' bloomed first; its plants were slightly taller. Both varieties produced lots of beautiful cut flowers; nice strong stems. Can't go wrong with either! Hummingbirds loved these orange flowers! I will grow these again.

Giant Dahlia Orange Orange King



Both were great. Both were beautiful. Best if staked—they will tip over in the wind.



Giant Dahlia Orange Orange King





Both were great. 'Giant Dahlia Orange' blooms were more reddish and had more variety. 'Orange King' blooms were smaller and more yellowish.

Giant Dahlia Orange Orange King ★★☆☆☆ ® NC Neither variety germinated well. 'Giant

Dahlia Orange' had better flowers.

Giant Dahlia Orange Orange King

I liked the large blooms and beautiful color of 'Giant Dahlia Orange'. Both varieties grew quite tall and had beautiful, long lasting blooms. I would grow both again.

Giant Dahlia Orange Orange King



I loved the full bloom on 'Giant Dahlia Orange'. Both varieties grew well and provided great summer color.

Giant Dahlia Orange Orange King





I loved both varieties. Their blooms were large and very colorful! They formed a lovely border at the edge of my vegetable garden.

**Both varieties** had large flowers set upon tall. sturdy stems. These blooms were excellent arrangements.

# **Best zinnia** varieties for cutting

Top choice Benary's Giant

## Strong performers

Burpeeanna Giants Cut and Come Again Giant Dahlia Oklahoma Uproar Rose Zowie! Yellow Flame

# Prefer 'G. D. Orange' (continued)

Giant Dahlia Orange
Orange King

SC

SC

Both varieties were profuse bloomers. 'Giant Dahlia Orange' germinated much better, grew taller, and had slightly larger flowers. It was a more profuse bloomer, although both were prolific bloomers. Both varieties were wonderful additions to the garden. Stunning orange flowers—5.5 feet tall. Both varieties had sturdy stems and brilliant color; good for long-lasting bouquets. Both varieties attracted a host of pollinators and looked healthy all summer. Although they took over my garden, the zinnias were showstoppers. I'm glad I participated in this trial! Once these plants were established, they required little water. I didn't know zinnias could grow so tall!

Giant Dahlia Orange
Orange King

'Giant Dahlia Orange' produced more flowers.

Giant Dahlia Orange
Orange King

I loved all of these as cut flowers. It was awesome to see how big they were. There many flowers and gave away many—still blooming!

# **Prefer 'Orange King'**

'Orange King' was a bit more vibrant in color. It had more variation in flower size and number of petals. Its plants grew taller. 'Giant Dahlia Orange' blooms were a bit lighter.

Giant Dahlia Orange
Orange King

MN

Both were healthy varieties and had nice color. 'Giant Dahlia Orange' did have a heavier/thicker flower and the bottom petals would start to brown. Not as attractive.

Giant Dahlia Orange
Orange King

'Orange King' outproduced 'Giant Dahlia Orange', but both grew well. I will grow these again.

Giant Dahlia Orange Orange King © SE

I planted them up around the house and out in my backyard garden. They all germinated wonderfully and produced the same. Had many complements on them. I would plant them again.

Beautiful color! We wish we wouldn't have gotten 12 inches of snow in early October, so we could have enjoyed them longer! The varieties did equally well as a cut flower. The only difference—and it was minimal—is 'Giant Dahlia Orange' needed a bit more support to withstand strong winds.

Giant Dahlia Orange
Orange King

Both varieties are nice zinnias, however 'Orange King' produced larger flowers and was taller in stature. 'Orange King' is a very noble zinnia, both stately and impressive in appearance. 'Orange King' provides a nice tall row of beautiful blooms that complements other tall flowers in our bed such as cosmos and black-eyed Susan. I have really begun to enjoy growing zinnias, if for no other reason than deer don't eat them. Having suffered through years when the deer eat everything that is not behind a fence, this is a real plus.

Both were incredibly good cut flowers. 'Orange King' proved hardiest.

Giant Dahlia Orange
Orange King

Orange King

Orange King

Orange King

Only six seeds of 'Giant Dahlia Orange' germinated. Grown in a high tunnel.

Both varieties grew great, bloomed prolifically and were highly rated by gardeners.

### **Prefer 'Orange King'** (continued)

Giant Dahlia Orange Orange King ###### © SC

'Orange King' had sturdy stems for arrangements.

Giant Dahlia Orange
Orange King

No comments.

Giant Dahlia Orange ★★★★ ③ Orange King ★★★★ ② SC

I loved them both. 'Orange King' produced more flowers. Planted both varieties in containers and they did excellent. I'm saving seed of both varieties.

Giant Dahlia Orange
Orange King

Orange King

NW

'Orange King' had slightly richer color—redder orange—and a few more double-petal heads. Both had intense color, had an eye-catching size and were healthy looking. Both germinated well under mediocre conditions along my alley fence. The plants started slowly due to exceptional heat in early summer; grew faster in August; then showed excellent growth in September. I recommend planting 'Orange King' with 'Purple Prince' for a two-tone color combo.

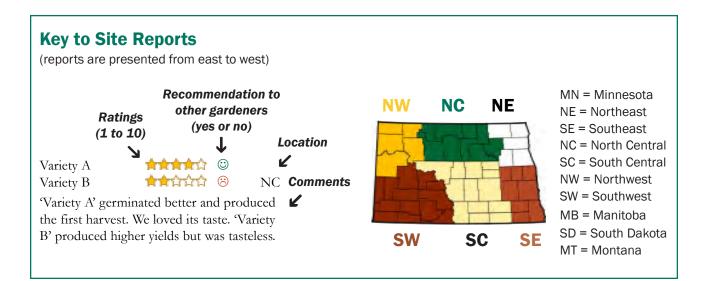
Giant Dahlia Orange 
Orange King

'Orange King' had more flowers and bloomed longer. It bloomed 10 days earlier.

#### **Conclusions**

Both varieties were highly rated by gardeners. The flowers were large and set upon tall, sturdy stems. These blooms were excellent in arrangements. 'Orange King' was preferred by more gardeners, but neither variety showed any superiority on a consistent basis across sites.

'Orange King' was preferred by more gardeners, but neither variety showed any superiority on a consistent basis across sites.



# Zinnia, Purple

#### **Varieties**

#### 'Giant Dahlia Violet'

82 days. Double, semi-double and single blooms. Great in the garden and for cutting. Grows 45 inches tall.

#### 'Purple Prince'

82 days. Giant, rosy purple flowers. Pretty in the garden and the vase. Resists diseases. Height is 36 inches.

#### **Data**

Gardeners at 37 sites submitted information.

Trait	Giant D. Violet		Same
Germinated best Healthier plants Bloomed earlier More blooms Prettier in garden Better cut flower	20% 29 18 43 <b>50</b>	17% 17 38 11 12 15	63% 54 44 46 38 44
Preference Recommend Mean score <sup>1</sup> Median score <sup>1</sup>	71 86 8.51 9.00	29 66 7.66 8.00	

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### **Prefer 'Giant Dahlia Violet'**

Giant Dahlia Violet MN Purple Prince

The color of 'Giant Dahlia' Violet' was very bright and vibrant, very pretty and showy. Its plants were healthy.

Giant Dahlia Violet MN © MN Purple Prince 'Giant Dahlia Violet' had a brighter, more

vibrant color. 'Purple Prince' grew a bit taller.

Purple Prince earlier and produced more flowers. Its plants

were more consistent in size.

Giant Dahlia Violet MN 'Giant Dahlia Violet' was healthier, bloomed



Giant Dahlia Violet Purple Prince

##### ® MN

'Giant Dahlia Violet' blooms were bigger, fuller, more colorful and lasted longer in the garden. Its stems were stronger. Purple Prince' leaves became discolored and looked dried up.

Giant Dahlia Violet MN Purple Prince

There were more flowers on 'Giant Dahlia Violet' and its flowers didn't fade as quickly as those of the 'Purple Prince'. 'Giant Dahlia Violet' had poor germination.

Giant Dahlia Violet Purple Prince





'Giant Dahlia Violet' had fuller flowers. Both varieties germinated very well, were very attractive and withstood the conditions of summer.

Giant Dahlia Violet Purple Prince





I enjoyed the larger flower and greater color intensity of 'Giant Dahlia Violet'. Its stems were stronger and lasted longer in the garden. It bloomed 2 days earlier. Purple Prince' held up longer as a cut flower.

Giant Dahlia Violet Purple Prince



Both varieties produced beautiful flowers. The 'Giant Dahlia Violet' plants were 6 inches taller.

**Several** gardeners felt 'Giant Dahlia **Violet' flowers** were brighter, more vibrant and more consistent in color.

# **Best zinnia** varieties for cutting

Top choice Benary's Giant

### Strong performers

Burpeeanna Giants Cut and Come Again Giant Dahlia Oklahoma Uproar Rose Zowie! Yellow Flame

# Prefer 'G. D. Violet' (continued)

\*\*\*\* Giant Dahlia Violet © SE Purple Prince

I preferred 'Giant Dahlia Violet' for its color.

Giant Dahlia Violet SE SE Purple Prince

'Giant Dahlia Violet' had consistent color and height with a beautiful plum color. The flowers were full, and the plants produced abundant blooms. Both varieties were healthy and began blooming within a day of each other.

Giant Dahlia Violet Purple Prince SE SE 'Giant Dahlia Violet' was gorgeous! Beetles

loved the flowers of both varieties.

Giant Dahlia Violet \*\*\*\* NC © NC Purple Prince

'Giant Dahlia Violet' bloomed almost 2 weeks earlier and had nearly twice as many blooms. I preferred its huge dahlia look. Both varieties germinated well even under less than ideal conditions and the plants were healthy. Both looked very attractive in the garden and kept well as cut flowers.

Giant Dahlia Violet NC Purple Prince

The blooms of 'Giant Dahlia Violet' stayed in bloom and looked better much longer. Its plants had longer stems with fewer leaves.

Giant Dahlia Violet 南南南南北 ◎ NC **食食食食**食 Purple Prince

'Giant Dahlia Violet' had larger flowers. Both varieties really added to the garden. I enjoyed the flowers.

Giant Dahlia Violet Purple Prince **食食**食食食。 NC

'Giant Dahlia Violet' had bigger plants with fuller blooms. This trial was grown in a high tunnel.

Giant Dahlia Violet Purple Prince NC 'Giant Dahlia Violet' looked sharper.

Giant Dahlia Violet Purple Prince



Both varieties had tall, beautiful plants and required very little water once they were established. They were lovely additions to the garden. They were pollinator magnets! The flowers of both varieties were long lasting and vibrant additions to bouquets. 'Giant Dahlia' Violet' was my first choice although 'Purple Prince' was also a prolific bloomer. 'Giant Dahlia Violet' seemed to have sturdier and slightly taller stalks. Its blooms had more intense color.

Giant Dahlia Violet Purple Prince





'Giant Dahlia Violet' flowers were very large and full. They were more uniform in color and shape compared to the flowers of 'Purple Prince'. The plants of 'Giant Dahlia Violet' were tall, easy to grow, and tolerated wind. Both varieties germinated well.

Giant Dahlia Violet Purple Prince



SC

'Giant Dahlia Violet' had a more vibrant color and I loved how big its flower was. Both varieties were trimmed by rabbits when 8 inches tall. They came back to grow 2-3 feet tall and bloomed beautifully.

Giant Dahlia Violet

**自由自由自** 食食食食物 Purple Prince

These bright pink to purple flowers really attracted the butterflies. I was especially amazed to see a swallowtail butterfly. I have never seen such a beautiful butterfly!

Giant Dahlia Violet Purple Prince





© NW

NW

Giant Dahlia had large blooms with beautiful vibrant colors. Hummingbirds love them. These varieties were planted quite late [June 10] due to construction projects, but they still produced well and had beautiful blossoms—still blooming on September 23.

Giant Dahlia Violet Purple Prince





Its plants stayed healthy and produced flowers longer in the fall.

'Giant Dahlia Violet' produced lots of blooms. **Many** researchers felt it was prettier in the garden and made a superior cut flower.

## Prefer 'G. D. Violet' (continued)

Giant Dahlia Violet Purple Prince



'Giant Dahlia Violet' was stunning. All vibrant and uniform in color. Tall, strong stalks. Beautiful in the vase. 'Purple Prince' had a faded purple color.

Giant Dahlia Violet Purple Prince



'Giant Dahlia Violet' had a bigger flower. Both varieties grew back after a hailstorm.

Giant Dahlia Violet Purple Prince





'Giant Dahlia Violet' produced large, double flowers that lasted longer. The blooms were deep purple to plum in color—very pretty. Its plants were taller and bushier. 'Purple Prince' were more of a single-petal bloom.

## **Prefer 'Purple Prince'**

Giant Dahlia Violet Purple Prince





'Purple Prince' plants were bigger, and its blooms were little nicer. Both varieties had beautiful color and long-lasting blooms. I had lots of compliments on these.

Giant Dahlia Violet Purple Prince





'Purple Prince' plants were a little less coarse. I love that the deer didn't appear to even take a nibble!

Giant Dahlia Violet Purple Prince





The germination and production of both varieties were great! I'd plant them both again.

Giant Dahlia Violet Purple Prince





'Purple Prince' was first to bloom; so pretty.

Giant Dahlia Violet Purple Prince





'Purple Prince' were very large and almost covered the whole plant. Its plants started to break down about mid-summer due to drought.

Giant Dahlia Violet Purple Prince



I preferred 'Purple Prince' because it bloomed earlier. I was not impressed by either variety as the flowers were not stunning; rather a dull, dark pink.

Giant Dahlia Violet Purple Prince



I liked the deeper color of 'Purple Prince'. There was no mildew on the leaves of either variety.

Giant Dahlia Violet Purple Prince





'Purple Prince' had more blooms.

Giant Dahlia Violet Purple Prince





'Purple Prince' flowers were darker, definitely bigger and spectacular late into August. Its blooms had fuller heads and held its color slightly longer in the vase. 'Giant Dahlia Violet' looked better in September

Giant Dahlia Violet Purple Prince

than in August.





'Purple Prince' had different shades of color. Both varieties had a nice, thick row of flowers.

#### **Conclusions**

Most gardeners recommended both varieties. 'Giant Dahlia Violet' was preferred. Several gardeners felt its flowers were brighter, more vibrant and more consistent in color. It produced more flowers at more sites. Many researchers stated it was prettier in the garden and was a superior cut flower. 'Purple Prince' bloomed earlier at several sites.

Most gardeners recommended both varieties. 'Purple Prince' bloomed earlier at several sites.

# Zinnia, White

#### **Varieties**

#### 'Giant Dahlia White'

82 days. Double, semi-double and single blooms. Great in the garden and for cutting. Grows 45 inches tall.

#### 'Polar Bear'

82 days. Pure white blooms contrast beautifully with the bright green foliage. Grows 40 inches tall.

#### **Data**

Gardeners at 11 sites submitted information.

Trait	Giant D. White	Polar Bear	Same
Germinated best Healthier plants Bloomed earlier More blooms Prettier in garden Better cut flower	50% 40 30 60 40 20	0% 10 20 20 30 20	50% 50 50 20 30 40
Preference Recommend Mean score <sup>1</sup> Median score <sup>1</sup>	70 70 7.80 8.50	30 <b>70</b> 7.30 8.00	.0

 $<sup>{}^{1}</sup>$ Rated from 1 to 10; 1 = poor and 10 = excellent.

#### Prefer 'Giant Dahlia White'

Giant Dahlia White MN © MN Polar Bear

'Giant Dahlia White' germinated best. It had more flowers and its flowers were slightly larger. 'Polar Bear' bloomed earlier and its plants were slightly taller. Both varieties were beautiful, and I will grow them again. Both had lots of flowers with multiple branching. Both stood up well to a damaging hailstorm on August 1.

Giant Dahlia White SE Polar Bear

They germinated wonderfully and produced the same. I planted the orange, white and purple all together and they all looked great! I would plant both varieties again.



Giant Dahlia White Polar Bear

SE

'Giant Dahlia White' had more "tall" flowers. Beetles decimated the flowers of both varieties.

Giant Dahlia White Polar Bear SE

These are very similar varieties.

Giant Dahlia White Polar Bear



I planted late (June 10), but they germinated well and had beautiful blossoms. They stood up well to North Dakota wind! They made very nice cut arrangements with the purple zinnias. 'Giant Dahlia White' had large, attractive plants and blossoms. It is still blooming today, September 23.

Giant Dahlia White Polar Bear





I didn't think 'Polar Bear' was going to come up at all; it was so far behind and bloomed 2 weeks later. Its plants were shorter and weedy looking; although the plants of 'Giant Dahlia White' were not much better. Neither variety produced well. 'Giant Dahlia White' flowers were fuller; most of the 'Polar Bear' flowers had single petals. Both of these varieties look shabby compared to the varieties in the orange zinnia trial.

'Giant Dahlia White' produced more flowers. **Gardeners** liked its healthy plants and the fullness of its flowers.

# **Best zinnia** varieties for cutting

Top choice Benary's Giant

## Strong performers

Burpeeanna Giants Cut and Come Again Giant Dahlia Oklahoma Uproar Rose Zowie! Yellow Flame

### Prefer 'G. D. White' (continued)

'Giant Dahlia White' plants were taller. Its initial flowers were larger and fuller; more petals per head. Plants of both varieties were shrub-like, growing tall and bushy with flowers being too small for the overall size of the plant. Pollinators loved the later blooms as they were more likely to have single petals.

#### Prefer 'Polar Bear'

Polar Bear' had a larger, much prettier flower. It bloomed much earlier and put on a better show in the garden. Its plants were much stronger with thicker stalks. 'Polar Bear' flowers lasted much longer as a cut flower.

Giant Dahlia White Polar Bear © NW

'Polar Bear' was more attractive. It had more flowers per plant. Its plants were fuller and bushier.

Giant Dahlia White
Polar Bear

No comments.

#### **Conclusions**

'Giant Dahlia White' was preferred by more gardeners. It matched or exceeded Polar Bear' in all traits. 'Giant Dahlia White' germinated better and produced more flowers. Gardeners liked its healthy plants and the fullness of its flowers. 'Polar Bear' performed well and was recommended by an equal number of gardeners.

'Polar Bear'
performed well
and was
recommended
by most
gardeners.

# **Appendix 1**

# **Welcome Letter**

Spring 2018

# NDSU EXTENSION

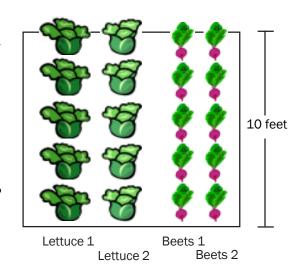
Dear Gardener,

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. 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 must get the same amount of sunlight and general care (watering and fertilizing).
- 3. We want to see how these varieties perform under real home garden situations. The packets have 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 varieties for each trial in rows near each other. Look at the diagram (top right). Notice the varieties being compared in the lettuce and beet trials are grown next to each other. In this way, they are most likely to get the same amount of sunlight and care.

Cucumber, melon and pumpkin vines can "run" and become intertwined. Try to keep the vines of each variety within the row so you do not get confused when harvesting and evaluating each variety.

5. You have enough seeds to grow at least 10 feet of each variety. We've enclosed a row marker with string. There is a 10-foot space between the two marks on the string. It's okay if you don't have enough



space for 10-foot rows, but try to get a fair look at both varieties.

- 6. Use the plot labels that are enclosed. This will help you remember which variety is which. I strongly encourage you to make a plot diagram after you are done planting for your future reference in case the plot labels get removed accidentally (this happens with kids).
- 7. An example of a completed evaluation form is enclosed. Use this as a guide to help you when evaluating the varieties.

Let me know if you have any questions. I'll be happy to help.

Sincerely,

Tom Kalb
Extension Horticulturist
2718 Gateway Ave., Suite 304
Bismarck, ND 58503
tom.kalb@ndsu.edu
701.328.9722

Welcome to our research team!

#### **More Info**

Go to the ND Home Garden Variety Trials website: www. ag.ndsu.edu/ homegarden varietytrials/

# **Appendix 2**

# **Example of Evaluation Form**

# Cantaloupe Variety Trial

### Trial #00

Gardener Name:	Jenny Gardener
County: Golden V	ralley
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?		Χ		Apollo vines turned gray in fall
Produced the first ripe melons?	Х			Three days earlier than Zeus
Produced higher yields?		Χ		Zeus produced 10 good melons; Apollo produced only 6
Had more attractive melons?		Χ		Zeus had larger fruits and brighter orange flesh
Tasted better?		Х		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. <i>Don't give both a "10". Be very critical!</i>	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:

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.

#### 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!

# **Appendix 3**

# **Acknowledgements**

#### Researchers

North Dakota State University Extension Service is very thankful to the following gardeners who provided results from their research plots:

Norma Ackerson
Kristina Akers
Annell and Claire Alger
Debra Altringer
Ed Amman
Ken Anderson
Nadine Anderson
Orren Anderson
Jerry Axtman

Dina, Jess, LaRoy and Mary Baird

Gerri Balstad Nolan Bateman Jana Beattie Heather Beckedahl Felixe Becker Matthew Beneda Ron Beneda Family

Kirby Baasch

Hannah, Rabecca and Robyn

Benjamin Hadley Berdahl Amanda Berg Bill Berg

Dan and Regina Bitzan Brenda Bjugstad Anne Blankenship Rachel and Stacy Blawat

Peggy Boe Royann Bold Harriet Bracken Kathleen Brandt Anton Braun

Dave and Jan Breker
Cecelia Brown
Austin Burkett
Wanda Burrer
Nick Bury
Diane Byrum
Bob Carlson
Debra Chambers

Jessica Clemens

Lori Cline

Mary Jo Cournia Josie Dahlberg Denise Dame Barbara Delaney Lori DeRemer Paulette Deutsch

Ava, Halle, Nancy, Rachel and Ryker Dunlop Judy Dziengel

Geraldine Eichele Virginia Eisenzimmer Emily Ergen

Katie Erickson Celeste Ertelt Nadine Florhaug Dan Folske

Florian and Jackie Friedt

Susan Froemke Jesse Frolek Larry Gangle

Jodie and Natalie Gaugler

Geraldine Geiger Sherwood Gibbs Allen Giese Gail Gjovik Ruth Glen Reggi Glueckert Deb Goplen Bob Gordon Brenda Gorseth Richard Grabowski

Mona Granrud Chettie Greer Susan Gronhovd Shannon Grove Anita Haakenson Ruth Haaland Sue Hamilton Sara Hanson

August, Clara, Eddie, Jessica and

Scott Harms

Melora Haraseth

Charles Hart Sheri Hatten

Amber Havard Roxanne Hawley Della Helbling

James Helbling

Steve Hell Lori Helm Megan Hest Tricia Hettwer Dee Heintz

Carla Hodenfield Alicia Hoffarth Liana Hoffman Pam Holscher Lynn Homelvig

Glen and Robbi Hopkins

Dick Horner Connie Hourigan Linda and Rick Hovda

Gwen Hoverson Linda Hovland Alecia Hultgren Clark Jahnke Joyce James Sonya Jensen Anthony Johnson Glenna Johnson Durand Jones Megan Jones Sharon Jorschumb

Joe, Maria and Tom Kalb Sherry and Vickie Keller Cheri Kiefer Genevieve Kirmis

Chad Klindtworth Scott Knoke Karen Kostelecky

Allison, Erin, Michael and Samuel

Krause

Ignatius, Kelsey and Tristan Lako

Deb Larson

#### **More Researchers**

Mary Lass Lindsey Lee Rebecca Limke Amanda Lindblad

Ellin Lindee Lori Lippert Amanda Lorenz Michael Luckenbill Hilmer and Joyce Maas Lindsay Maddock Lorraine Manz Margaret Marcusen Linda Marion Christopher Martin Gary Martin Lori Martin

Theresa Martin-Johnson

Judy Martinson Jan McCarthy Mike McDaniel

Eden, Josie and Wyatt McLeod

Alena and Peter Meberg

Jacob Merritt Mary Ann Mayer Mavis Meyer Bruce Middaugh Cheri Miller Janice Mills Sara Mittelsteadt Brianne Moos

Elizabeth and Taylor Morical Katie, Logan and Maddie Muth Forrest and Emily Nielsen

Dorothy Nelson Susan Nelson Linda Ness Penny Nester Vivian Novotny Gerald Odegard Donna Ogden

Cindy and Dan Olson

Maria Olson Sarah O'Neill

Aaron, Garin, Jasper, Levi,

Sterling and Westin Opdahl

Carolyn Oster

Joel and Kim Owen

Ron and Sheila Palczewski

Season Parlier Parshall School Janna Pastir Shannon Paul

Cory and Pam Paulson Leigh Ann Perdue Kari Perreault Donna Peterson Jodi Peterson Mary Pladsen Shelley Porter Alegra Powers Ioe Puhalla Janet Quinn August Rahlf Karen Rampton

Diane Randle Carmen Rath-Wald Tara Reisenauer Marie Risdal

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Ben and John Schultz Blaine Schumacher Mark Schumaker Shelly Schwab Stacy Schwarz Jennifer Seamands Iim Semerad Meri Skaare Deb Slack Elisabeth Slotten Marsha Smaaladen

Courtney and Esther Sprenger

Rockie Stavn

Dawn Snively

Caitlin, Henry and Olive Stegmiller

Patricia Stockdill Eileen Stokkeland

Caleb, Cora, Magdalen, Michael

and Oliver Suda

Cooper, Coy and Lee Svangstu

David Swenson

Sally Thoele Peggy Thomas Lyle Thomason Cheryl Thompson Susan Tidball

Andrew, Elizabeth, James, Katelynn and Maria Toomey

Bev Turbiville Janie Vandal Margaret Vellenga Eileen Vetter Megan Vig Lillian Volochenko Mary Jo Wagar

Angie and Sheyenne Waletzko

Bill and Debra Wallace

Karen Weber Marlys Weichel Todd Weinmann Kenneth Weinzierl Greta Whelan

Curtis and Sheila Wiesz

Jan Wild

Elaine Kathryn Willenbring Ashlyn, Kale, Marie and Trig

Williams Connie Wilson Julie Woodbury Carrie Woodruff Holly Wyman Lori Zimprich

# **Acknowledgements** (continued)

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6042912446/; Dave Gunn, .../ shelley\_dave/2696663858/; Julie, .../yoursecretadmiral/ 4707352649/; congerdesign, Pixabay; jiji56cp, .../ 25171569@N02/10054547606/; Cindy Funk, .../ 84858864@N00/1478356424/; ntime60, .../ntime60/ 5047792375/; 442737, 422737, Pixabay; PublicDomainPictures, Pixabay; Robin, .../goofygouda/ 4670222381/; Mark Licht, .../ notionscapital/12736528224/; ilovebutter, .../jdickert/ 852904568/; Katie Harbath, .../ katieharbath/4817646745/; danbruell, .../mr-morshee/ 7966077448/; Bluestem Farm, .../brookfordfarm/ 6213547307/; Mark H. Anbinder, .../mhaithaca/8180730673/; Sunchild57 Photography.../ francescarter/10132977606/; Theresa O'Connor, .../hober/ 168648375/; Greg Hirson, .../ ghirson/42770867/; Tod Petit, .../starmist1/36203480613/; jeonsango, Pixabay; Mark Dwyer, Rotary Botanical Gardens; jacinta lluch valero, .../70626035@N00/ 11197262165/; Louis Dallara, .../ ldallara/1285558663/; greenhem, .../greenhem/3981864532/; Dwight Sipler, .../photofarmer/ 6105413213/; Dwight Sipler, .../ photofarmer/3931552086/; metadog, Pixabay; Efraimstochter, Pixabay; Dendroica cerulea, .../ dendroica/4963949491/; John, .../puzzler4879/9739285975/; Angie Waletzko.

### **Variety Descriptions**

This is an academic report published for educational purposes only. The author gratefully acknowledges the sources of the descriptions of the varieties tested in this project: Fedco Seeds, Harris Seeds, Horticultural Products and Services, Kitazawa Seed, Johnny's Selected Seeds, Jung Seed, Osborne Seed, Prairie Road Organic Seed, Reimer Seeds, Seed Savers Exchange, Seeds of Change, Stokes Seeds, Swallowtail Garden Seeds, Territorial Seed and Veseys Seeds.

# **Gardeners Identify Superior Varieties for ND**

#### The Situation

The first step in growing a productive garden is to select a superior variety. A superior variety can lead to major increases in yield and food quality.

The benefits of selecting superior varieties are great. Over 93,000 households in North Dakota grow a garden (*National Garden Bureau*, 2008). Surveys of gardeners in our state show these gardeners enjoy healthier diets and save millions of dollars on food expenses (for example, garden renters in Bismarck save an average of \$105 per household on food expenses).

## **Extension Response**

A team of 233 families across the state was formed to evaluate promising vegetable and cut flower varieties in spring and fall. These volunteers evaluated 99 varieties for plant vigor, health, earliness, yield, and food/ornamental quality. No other program in the USA can match this program for its number of participants and varieties tested.

### **Impacts**

A survey was conducted to document the impacts of the project. One hundred and forty-one of 193 online households (73%) responded.

- 96% were introduced to new varieties.
- 94% will change the way they grow their garden in the future.
- 87% reported more productive gardens.
- 78% reported healthier diets.

Positive impacts were documented with children:

- 79% of children improved their diets.
- 78% of children sharpened their skills in science and math.
- 71% of children increased their level of physical activity.

These impacts on youth are noteworthy as the Centers for Disease Control and Prevention reported 92% of children in North Dakota do not eat enough vegetables for a healthy diet. An estimated 78% of children do not get enough physical activity (North Dakota: State Nutrition, Physical Activity and Obesity Profile, 2012).



Results are shared with gardeners online and in workshops conducted across the state. Over 2,000 gardeners will attend these programs next spring.

#### **Feedback**

"We were introduced to varieties that we wouldn't have tried on our own. We will plant them again."

"I had never done any fall garden planting before, but I will from now on!"

#### **Public Value Statement**

Superior varieties lead to higher yields. Higher yields lead to healthier diets and greater savings on food expenses.

# **Primary Contact**

Tom Kalb, Ph.D. Extension Horticulturist 2718 Gateway Ave., Suite 304 p: 701.328.9722 / tom.kalb@ndsu.edu

#### **Resource Links**

http://www.ag.ndsu.edu/homegardenvarietytrials/

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Vegetable Cultivars for North Dakota

2019

The finest cultivars will lead to the finest gardens. North Dakota State University and its team of over 200 gardeners evaluate promising cultivars every summer. The following cultivars have excelled in these and other trials in the Midwest:

**ASPARAGUS.** Jersey Giant, Jersey Knight, Jersey Supreme, Purple Passion.

BEAN. Bush: Bush Blue Lake 274, Crockett, Derby, Espada, Inspiration, Jade II, Maxibel, Pike, Provider, Purple Queen Improved, Royal Burgundy, Serengeti, Strike. Dry: Arikara Yellow, Great Northern. Lima: Fordhook 242, Eastland. Pole: Fortex, Orient Wonder, Seychelles, Stringless Blue Lake S-7. Soybean: Envy, Tohya. Wax: Borsalino, Carson, Gold Rush, Rocdor.

**BEET.** *Red:* Bull's Blood, Cylindra, Detroit Dark Red, Early Wonder Tall Top, Merlin, Red Ace. *Other:* Avalanche, Boldor, Golden Detroit, Touchstone Gold.

BROCCOLI. Packman.

BRUSSELS SPROUTS. Jade Cross E.

**CABBAGE.** *Chinese:* Blues. *Head:* Early Jersey Wakefield, Golden Acre, Ruby Perfection, Stonehead.

**CARROT.** *Orange:* Bolero, Caracas, Goldfinger, Hercules, Laguna, Mokum, Napoli, Nelson, New Kuroda, Scarlet Nantes. *Other:* Chablis Yellow, Purple Haze.

**CAULIFLOWER.** Amazing, Cheddar, Snow Crown, Violet Queen.

CORN. Shrunken kernel: American Dream, Anthem XR, SS2742, SS3778R, Xtra-Tender 274A and 277A. Sugary enhanced: Ambrosia, Bodacious RM, Delectable, Luscious, Peaches & Cream, Sugar Buns, Sweetness, Temptation. Synergistic: Allure, Cuppa Joe, Honey Select. Ornamental: Fiesta. Popcorn: Dakota Black.

CUCUMBER. *Pickling:* Alibi, Calypso, Eureka, Homemade Pickles, H-19 Little Leaf. *Slicing:* Dasher II, Diva, Fanfare, General Lee, Mercury, Muncher, Orient Express II, Raider, Salad Bush, Silver Slicer, Straight Eight, Summer Dance, Sweet Slice, Sweet Success, Talladega, Tasty Green.

**EGGPLANT.** Black Beauty, Dusky, Fairy Tale, Millionaire, Orient Express.

**GREENS.** Hon Tsai Tai, Koji, Joi Choi, Komatsuna, Miz America, Mizuna, Mei Qing Choi, Osaka Purple, Red Giant, Tatsoi, Tendergreen, Vegetable Amaranth.

**KALE.** Black Magic, Red Russian, Vates, White Russian, Winterbor.

**KOHLRABI.** Early White Vienna, Kolibri, Kossak, Winner.

LETTUCE. Leaf: Bergam's Green, Deer Tongue, New Red Fire, Red Sails, Red Salad Bowl, Red Velvet, Royal Oakleaf, Slobolt, Starfighter, Tropicana. Bibb/Crisphead: Buttercrunch, Muir, Nancy, Nevada, Red Cross, Sierra, Skyphos. Romaine: Crisp Mint, Fusion, Green Forest, Starhawk.

**MELON.** *Muskmelon:* Aphrodite, Athena, Goddess, Solstice, Superstar. *Specialty:* Arava, Earli-Dew, Passport, San Juan.

Selecting an outstanding cultivar can lead to a bountiful garden.

Flavorful

Resists diseases

**✓** Productive

Widely
adapted
(cool soil,
dry weather)



**OKRA.** Candle Fire, Clemson Spineless. **ONION.** Ailsa Craig, Candy, Copra, Sweet Sandwich, Walla Walla.

**PEA.** *Shell:* Early Frosty, Green Arrow, Knight, Lincoln, Little Marvel, Maestro Improved, Wando. *Snap:* Sugar Ann, Sugar Sprint, Super Sugar Snap. *Snow:* Oregon Giant, Oregon Sugar Pod II, Sweet Horizon.

PEPPER. Bell: Bell Boy, Early Sunsation, Jupiter, New Ace, North Star, Orange Blaze. Frying/Roasting: Carmen, Flamingo, Giant Marconi, Gypsy. Hot: Cheyenne, Early Jalapeno, Garden Salsa, Hot Paper Lantern, Hungarian Hot Wax, Mariachi, Mucho Nacho, Tiburon.

**POTATO.** Dark Red Norland, Kennebec, Peter Wilcox, Purple Viking, Red Gold, Satina, Superior, Yukon Gem, Yukon Gold.

PUMPKIN. Cooking: Small Sugar, Rouge Vif D'Etampes. Jack-o'-lantern: Autumn Gold, Cronus, Early Dakota Howden, Early Giant, Early King, Gladiator, Howden, Howden Biggie, Magic Lantern, Neon, Orange Smoothie. Giant: Big Moose, Dill's Atlantic Giant. Ornamental: Blaze, Casperita, Jack Be Little.

RADISH. Standard: Amethyst, Bacchus, Cherry Belle, Easter Egg II, French Breakfast, Pretty in Pink, Rover, Roxanne, White Icicle.

**RUTABAGA.** American Purple Top. **SPINACH.** Bloomsdale Long Standing, Emperor, Gazelle, Melody, Olympia, Red Kitten, Space, SV2157VB, Tyee.

SQUASH, SUMMER. Crookneck:

Sundance. *Scallop:* Flying Saucer, Sunburst. *Straightneck:* Fortune, Multipik, Zephyr. *Zucchini:* Desert, Easypick Gold, Gold Rush, Green Tiger, Payload, Portofino, Raven, Spineless Beauty.

SQUASH, WINTER. Acorn: Black Bellota, Carnival, Table Ace, Table King. Buttercup: Bonbon, Burgess. Butternut: Early Butternut, Waltham. Delicata: Cornell's Bush Delicata. Hubbard: Blue Magic. Kabocha: Sunshine, Sweet Mama.

**SWEET POTATO.** Beauregard.

**SWISS CHARD.** Bright Lights, Flamingo, Lucullus, Oriole, Peppermint, Rhubarb.

TOMATO. Cherry: Juliet, Sunsugar, Supersweet 100, Sweet Baby Girl, Yellow Pear. Fresh market: Big Beef, Bush Early Girl, Celebrity, Early Girl, Goliath, Mountain Fresh Plus. Paste: Roma VF, Viva Italia. Heirloom: Brandywine, Cherokee Purple, Striped German, Stupice, Wisconsin 55.

**TURNIP.** Hakurei, Purple Top White Globe, Tokyo Cross.

**WATERMELON**. *Seeded:* Early Moonbeam, Sangria, Sugar Baby, Sweet Dakota Rose, Yellow Doll. *Seedless:* Millionaire.

# **Seed Sources**

The following is a sample of companies offering seeds. This list is provided for educational purposes only; no discrimination is intended and no endorsement is implied.

Baker Creek Seed, 2278 Baker Creek Rd., Mansfield, MO 65704; www.rareseeds.com; 417.924.8917.

Burpee Seed, 300 Park Ave., Warminster, PA 18974; www.burpee.com; 800.888.1447.

Fedco Seeds, PO Box 520, Waterville, ME 04903; www.fedcoseeds.com; 207.426.9900.

Gurney's Seed and Nursery, PO Box 4178, Greendale, IN 47025; www.gurneys.com; 513.354.1492.

Harris Seeds, 355 Paul Rd, PO Box 24966, Rochester, NY 14624; www.harrisseeds.com; 800.544.7938.

Henry Fields, PO Box 397, Aurora, IN 47001; www.henryfields.com; 513.354.1494.

Johnny's Selected Seeds, 955 Benton Ave., Winslow, ME 04901; www.johnnyseeds.com; 877.564.6697.

Jung Seed, 335 S. High St., Randolph, WI 53956; www.jungseed.com; 800.297.3123.

Kitazawa Seed, 201 Fourth St., #206; Oakland, CA 94607; www.kitazawaseed.com; 510.595.1188.

Osborne Seed, 2428 Old Hwy 99 S. Rd., Mt. Vernon, WA 98273; www.osborneseed.com; 360.424.7333.

Pinetree Garden Seeds, PO Box 300, Gloucester, ME 04260; www.superseeds.com; 207.926.3400.

Prairie Road Seed, 9824 79th St. SE, Fullerton, ND 58441; www.prairieroadorganic.co; 701.883.4416.

Seed Savers Exchange, 3094 N. Winn Rd., Decorah, IA 52101; www.seedsavers.org; 563.382.5990.

Stokes Seeds, PO Box 548 Buffalo, NY 14240; www.stokeseeds.com; 800.396.9238.

Territorial Seed, PO Box 158, Cottage Grove, OR 97424; www.territorialseed.com; 800.626.0866.

All gardeners are invited to join our team of backyard researchers. Go to www. ag.ndsu.edu/homegarden varietytrials/

Written by Tom Kalb, Extension Horticulturist, North Dakota State University, email: tom.kalb@ndsu.edu. The author gratefully acknowledges the efforts of over 1,000 gardeners in North Dakota and nearby states/provinces who evaluated these cultivars.

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