



# 2021 Home Garden Vegetable Trials

## Overview

The Home Garden Vegetable Trials is a citizen science project for gardeners in the state of Ohio. Each year, five cool-season and five warm-season vegetables are tested. There are two varieties of each vegetable in a trial.

Gardeners are allowed to select the number of trials in which they would like to participate. They are asked to grow a 10-foot row of each variety or the equivalent number of plants. There are no mandates as to how the vegetables are grown. Gardeners track the progress of their vegetables and report the results at the end of the growing season. The results are then posted in order to help other gardeners in the selection of vegetables that they would like to grow in the coming years.

2021 is the third year of the project. There were 134 participants from 35 counties. This report documents their results and recommendations.

## Table of Contents

[Participants and variety selection....p. 2](#)

[Gardening Methods .....p. 3](#)

### TRIAL RESULTS

#### Cool-Season

[Broccoli .....p. 4](#)

[Kale .....p. 5](#)

[Lettuce .....p. 6](#)

[Peas .....p. 7](#)

[Spinach .....p. 8](#)

#### Warm-Season

[Cucumbers ..... p. 9](#)

[Green Beans .....p. 10](#)

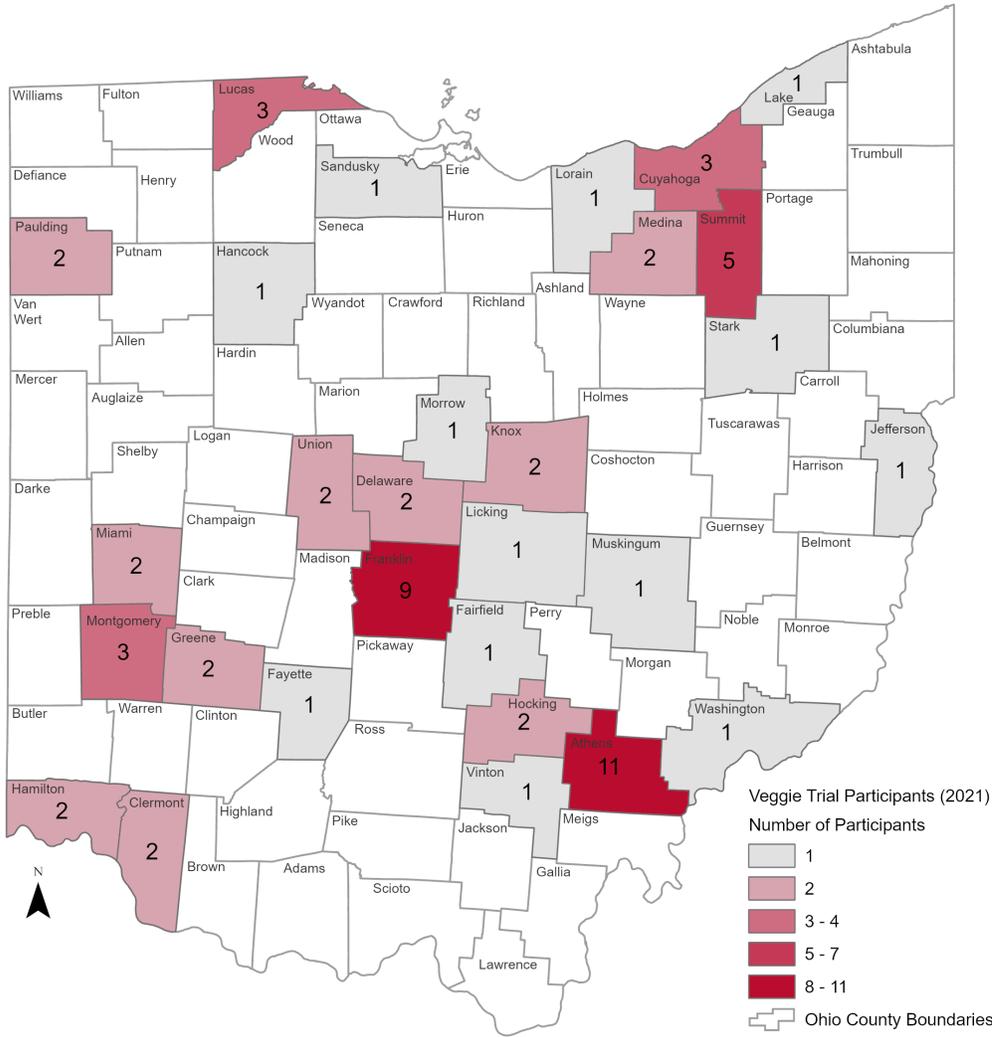
[Sweet Peppers .....p. 11](#)

[Summer Squash .....p. 12](#)

[Tomatoes .....p. 13](#)

# Participants

134 gardeners from 35 counties elected to participate. The trials are open to any resident in the state of Ohio.



## Seed Source and Selection

- Seeds were purchased from **Harris Seeds**
- Variety pictures are from the Harris Seeds website
- Seeds were selected using a variety of criteria and may include:
  - Old favorites vs. a new release
  - Popular commercial variety vs. popular home-garden variety
  - Two, new variety releases
  - Hybrid vs. heirloom variety
- Days to maturity was used to pair varieties with similar maturity times

## Reading the charts

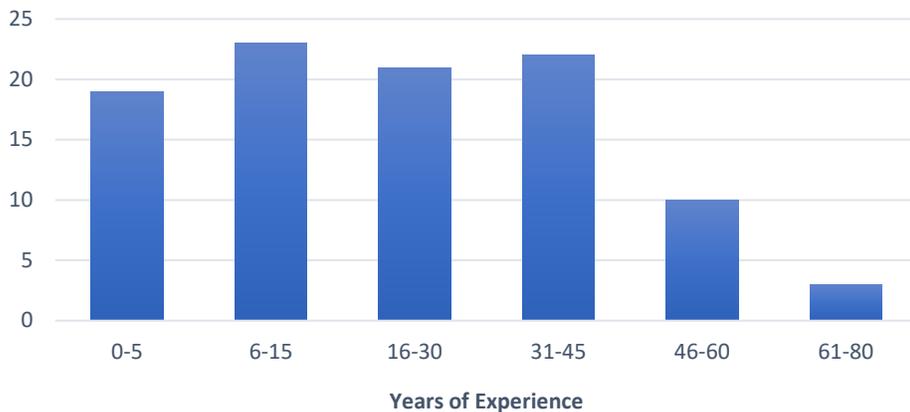
- **Participants reported on a comparative scale with six key indicators**
  - First to germinate
  - Healthier plants
  - First to reach harvest time
  - Better appearance of fruit or plant
  - Yielded the most produce
  - Tasted better
- **A variety was ranked as better, equal, or worse than the other variety**
- **If a variety was ranked as better or equal, then it is recorded as a positive response. In this way, response totals and combined percentages may be greater than 100%**

Example: Variety 1 was ranked as having a germination time that was ranked as 61% as better or equal to variety 2

### Germination

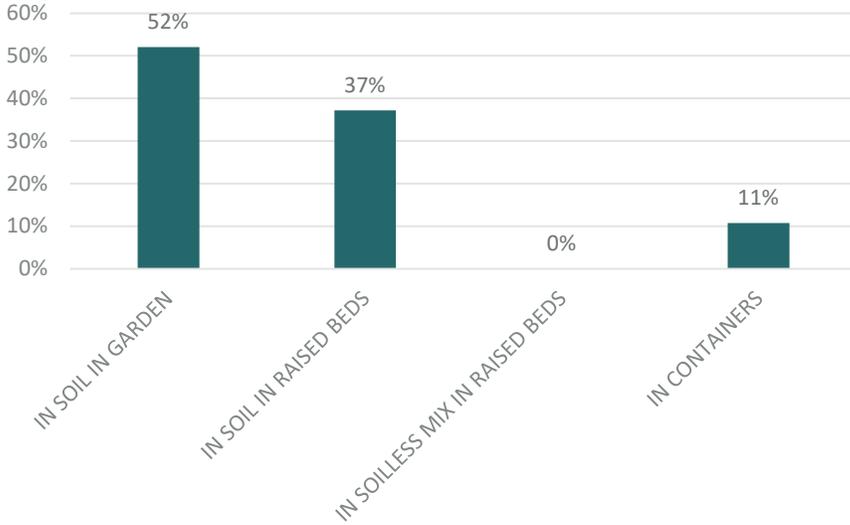


## Participant's Years of Vegetable Gardening Experience



# Gardening Methods

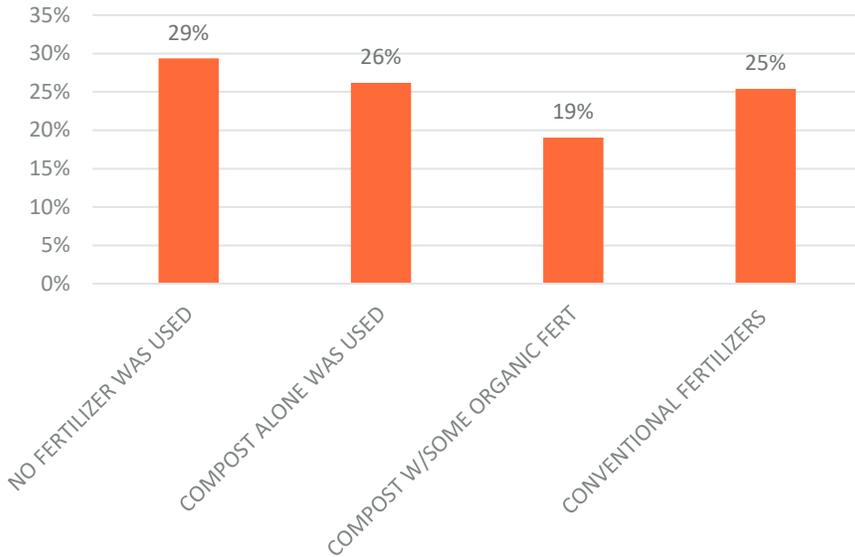
## Type of Garden



## How are the gardens being grown?

While half of the gardens were planted using traditional garden rows and soil, over a third were grown in raised beds, and 11% were grown in containers. Container gardening has been a growing trend in the last few years.

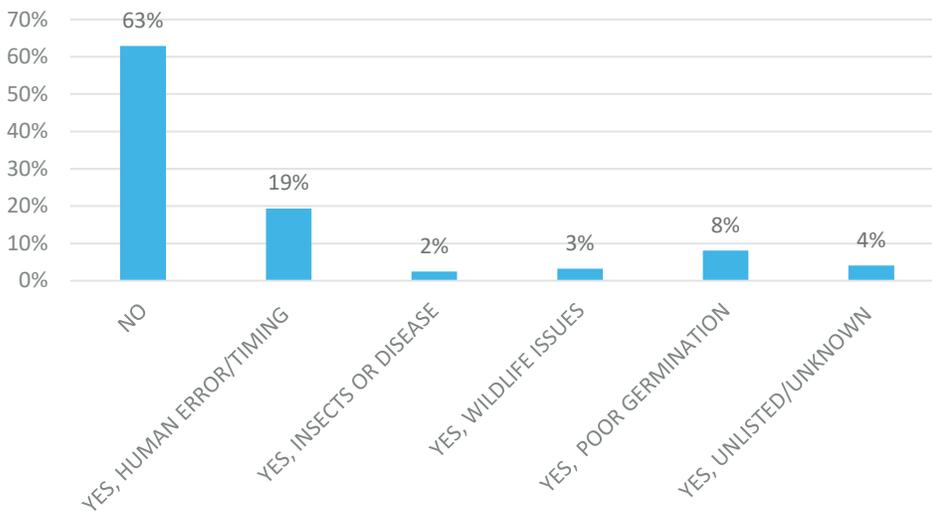
## Type of fertilizer



## Fertilizing the garden

The trials highlight the fact that gardeners have different philosophies on how they choose to feed their vegetables, with almost 30% choosing not to use any form of fertilization.

## Garden Failure



## Garden failures

While 60% of gardeners in the trials had success, there was a 40% failure rate. Failure happened for a variety of reasons with the highest percentage coming from human error.

Many failures occur with the cool-season vegetables as fluctuating temperatures and overly wet conditions may present a challenge for gardeners to have a successful crop.

# Cool-Season Vegetables

## Broccoli



**Asteroid**



**Gypsy**

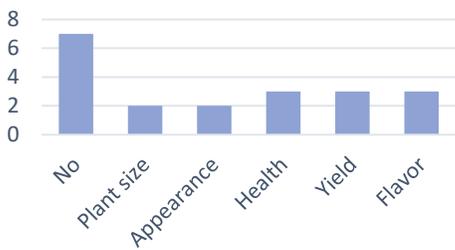
### Performance



Recommend growing

13 Reviews

### Recommend Asteroid



### Recommend Gypsy



## Analysis

Gypsy was ranked higher in all categories with only four of the thirteen gardeners recommending not to grow it. Asteroid did not fare as well with more than half of the gardeners recommending not to grow.

### Germination



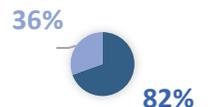
### Health



### Attractiveness



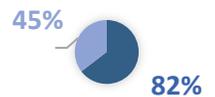
### First Harvest



### Higher Yields



### Taste



### Gardener Comments:

"With Gypsy we noticed a very slight bitter after taste compared to Asteroid. However, it would not be a reason to reject Gypsy."

"Asteroid had the typical bitter flavor of store-bought broccoli. Gypsy had a slightly sweet flavor."

"Gypsy had better heat and stress tolerance. Asteroid yielded a little better, but gypsy had consistent head size and better appearance."

"Both varieties germinated well in pots prior to transplanting to my raised garden beds on 5/26/21. The varieties both thrived in the raised beds with very tall and lush green leaves until they started to produce broccoli stalks. The plants were quickly damaged by worms under the leaves that spread to the developing stalks. We were able to harvest only a couple of stalks before the worms became too numerous to ignore."

"Average performance due to hot weather"

"They were very similar"

"My asteroid plants did not do as well, whereas my gypsy plants are still producing (without any season extension tools) as of December 14."

"Both seemed to bolt really, early which made harvesting anything worthwhile impossible."

# Cool-Season Vegetables

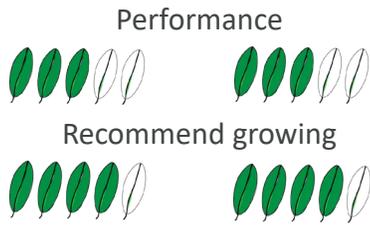
## Kale



**Scarlet**

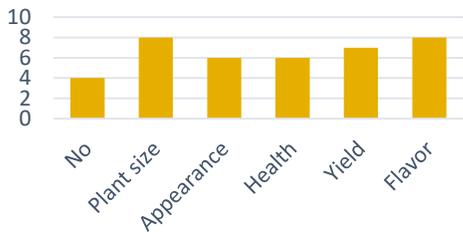


**Lacinato**

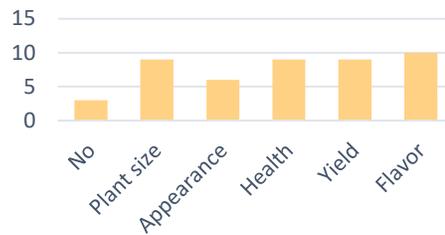


16 Reviews

### Recommend Scarlet



### Recommend Lacinato



## Analysis

The two varieties of kale were ranked as having similar performance. The greatest challenge came with gardeners having difficulties getting the plants to germinate. Still, more than 75% of the gardeners would recommend both varieties.

### Germination



### Health



### Attractiveness



### First Harvest



### Higher Yields



### Taste



### Gardener Comments:

*"Weather issue in early spring - fluctuations between 80 degrees and snow / heavy rains. Did not germinate."*

*"Possibly just related to my garden. Seedlings did OK, however on transplanting to garden never seemed to take off. Additionally, I did many direct sow seeds around 5/15 which also never seemed to germinate."*

*"Lacinato had a mild taste and yield was great."*

*"Both varieties were good growers and had similar taste, although we preferred the scarlet. Both were attacked by bugs, but the bugs did not consume the entire plant. Bug holes were acceptable as we air fried the kale for kale chips, so the holes weren't noticeable."*

*"Prefer the smaller size and texture of the Scarlet to the Lacinato."*

*"Both are good choices, but Scarlet was a bit sweeter than Lacinato."*

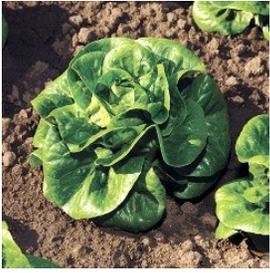
*"Lacinato continued to produce into November."*

*"Scarlet produced slightly better and healthier than Lacinato"*

*"The Scarlet produced more and longer into the season."*

# Cool-Season Vegetables

## Lettuce



**Newham**



**Stanford**

### Performance



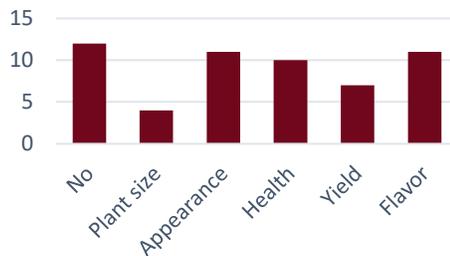
Recommend growing

29 Reviews

### Recommend Newham



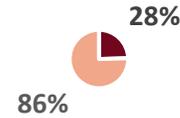
### Recommend Stanford



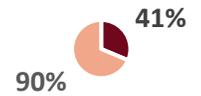
## Analysis

Newham outperformed Stanford in most categories except for attractiveness. Stanford's greatest attribute was its attractive color. This was still not enough for many gardeners to recommend growing it in the home garden.

### Germination



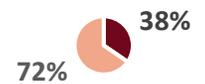
### Health



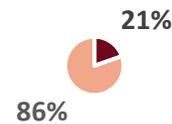
### Attractiveness



### First Harvest



### Higher Yields



### Taste



## Gardener Comments:

*"Newham has great flavor, Stanford slightly bitter"*

*"Had no germination from Stanford"*

*"Newham was in more shade than the Stanford and produced faster. Stanford did catch up in production. Newham was a bit bitter and Stanford had a better mild taste. Both were late to bolt."*

*"Newham was later and didn't have as many plants that came up but it was beautiful and looked like a flower."*

*"Excellent production from Stanford"*

*"Stanford had a little bitter taste at end but not horrible. Newham did produce larger lettuce."*

*"Though both were planted in the same bed on the same date, only a handful of Stanford germinated. A second planting resulted in about 80% germination. The Stanford was quicker to bolt. Stanford looks healthy, but Newham is downright pretty."*

*"Stanford germinated poorly in same raised bed with Newham, only got 2 plants. Newham did well and survived late planting of 6/1. Newham looked great but flavor was lacking, kind of blah."*

*"I really liked the Newham. It was an easy lettuce to grow and I would definitely grow again."*

*"Both lettuce varieties performed well in my raised herb garden bed. The Newham variety produced more lettuce, but we enjoyed the flavor of both varieties. The red leaf Stanford lettuce is particularly attractive in a salad though."*

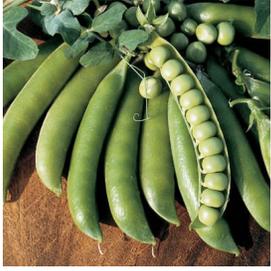
*"Newham had superior germination rate and grew faster."*

*"Stanford lettuce was bitter tasting, and not as big as the Newham, which was excellent in taste, although plants were small."*

*"Newham was the best lettuce I have ever grown; will grow it again."*

# Cool-Season Vegetables

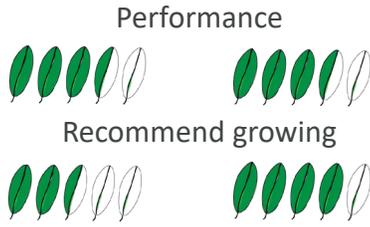
## Peas



**Lincoln**

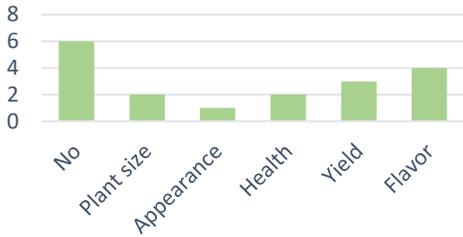


**PLS 595**

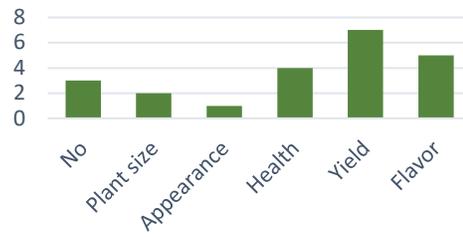


13 Reviews

### Recommend Lincoln



### Recommend PLS 595



## Analysis

Both varieties had similar scores in size and appearance. PLS 595 outperformed Lincoln in all other categories and most gardeners would recommend growing it. Lincoln did not fare as well in its recommendation rating

### Germination



### Health



### Attractiveness



### First Harvest



### Higher Yields



### Taste



### Gardener Comments:

"The seeds germinated well, but once in ground, didn't thrive at all."

"PLS produced more pods and sooner. Surprisingly, both cultivars had low to the ground plants even though I had a good climbing structure/trellis for them. Lots of bending. I'd like taller plants."

"PLS 595 had more pods and more peas per pod. While the peas were a little smaller, they were sweeter"

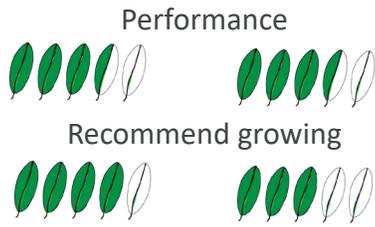
"Both yielded an average amount-for peas-per plant. Both tasted o.k. but not exceptionally well. We have had better. Perhaps PLS 595 had a tougher skin."

"I felt the PLS 595 was healthier plant and produced great tasting peas. The Lincoln was not as healthy."

"Both varieties grew to acceptable levels."

# Cool-Season Vegetables

## Spinach

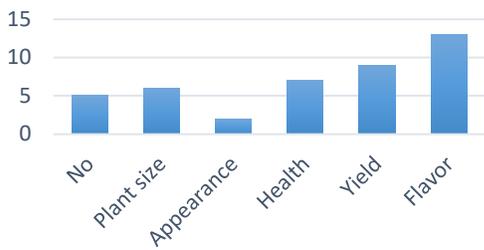


**Regiment**

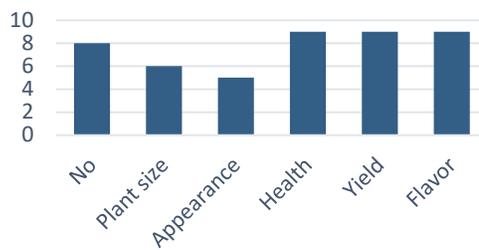
**Whale**

20 Reviews

### Recommend Regiment



### Recommend Whale



## Analysis

Regiment and Whale spinach were equally matched in most categories with Whale having a slight advantage in plant health and yield. Both had poor germination which led to a low recommendation for growing.

### Germination



### Health



### Attractiveness



### First Harvest



### Higher Yields



### Taste



### Gardener Comments:

*"Almost no germination in either variety." (2)*

*"The whale variety produced bigger and better. The flavor was about the same. Regiment seemed to have more issues with pests."*

*"Both grew exactly the same and bolted at the same time in mid-June. Good producers and good size."*

*"Regiment bolted really fast in comparison to Whale."*

*"My family loved the taste and texture of Regiment. The Whale just did not produce."*

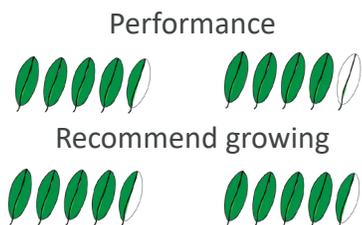
*"Regiment was amazing. HUGE leaves. Easy to harvest."*

# Warm-Season Vegetables

## Cucumbers



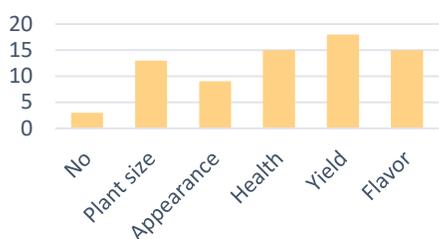
**Bristol**



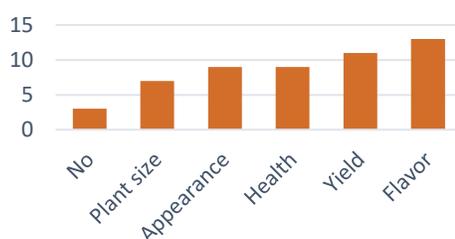
**Dasher II**

22 Reviews

### Recommend Bristol



### Recommend Dasher II



### Analysis

Both varieties were similar in most categories with Bristol edging Dasher II in yield and overall performance. Most gardeners recommend growing both varieties.

### Germination



### Health



### Attractiveness



### First Harvest



### Higher Yields



### Taste



### Gardener Comments:

*"Both tasted the same and I got incredible yields from both".*

*"Overall, this was our best year of cucumbers in several years even with the critter problem. The plants stayed healthy longer in the season."*

*"Two excellent varieties. Still producing cukes every day as of Aug 19. Both produced cukes better than anything in grocery store! Both very healthy and produced abundance of crisp 8" x 2" cucumbers. Bristol was slightly sweeter. Dasher II had a very slight bitter taste. Might not have even noticed if I wasn't doing a head-to-head taste comparison."*

*"Both varieties had rather tough skin, especially Bristol. Neither one was as flavorful as we think cucumbers usually are. Bristol had a bigger yield per plant."*

*"The Bristol outperformed the Dasher II in every category."*

*"Bristol's flavor was not great, but exceptional yield."*

*"Bristol more hardy, thicker skinned, developed better. Dasher tastes good but pretty fragile around insects we had this year."*

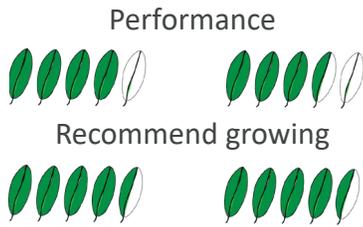
*"Both varieties did better than the usual varieties I have grown."*

*"Both had high yields. I had to leave town June 20 through July 15 and came home to loads of cucumbers. At this point it was hard to tell which variety was which."*

*"I've never had cucumbers produce as well as the Bristol variety. Dasher II did not produce for me at all, but it could have been due to squash being much larger than expected and choking out the Dasher II variety"*

# Warm-Season Vegetables

## Green Beans



Blue Lake 274

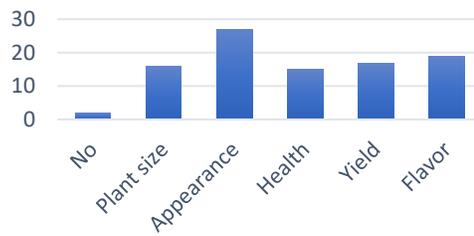
Amethyst

36 Reviews

### Recommend Blue Lake



### Recommend Amethyst



## Analysis

Blue Lake 274 had a better overall performance with faster germination, plant size, and yield. Gardeners did enjoy the attractiveness and ease of picking for Amethyst and both varieties were highly recommended.

### Germination



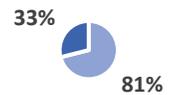
### Health



### Attractiveness



### First Harvest



### Higher Yields



### Taste



## Gardener Comments:

"We preferred the flavor of Amethyst. Blue Lake 274 was tougher and waxier in mouthfeel. Real green bean lovers may like it."

"Blue Lake produced some vines among the bush form. Also, some flat beans."

"Amazing and clear results! Amethyst won every time. Blue Lake had inconsistent pods, some flat and empty some bulging, Mexican Bean Beetle attacked Blue Lake and not Amethyst. Amethyst production was more than three times higher."

"Blue lake did produce more but the flavor and texture was so much better for amethyst"

"Amethyst germ about 60% vs blue lake germ about 90%"

"Amethyst had a slight sweeter taste especially if eaten raw."

"Amethyst is pretty but slower to yield. Blue Lake was faster. Amethyst eventually had a higher yield."

"Blue lake 274 seemed to get stringy as the plants got older. Amethyst did not get stringy as the plant got older."

"I thought the Amethyst was not going to perform well because it germinated a little later and not as completely as the Blue Lake. However, the Amethyst came on strong later. The beans were easy to harvest because of visibility. I found the flavor and tenderness superior to Blue Lake. Overall, The yield was higher than the Amethyst but the flavor and tenderness was not as good. Some of this result may have been related to finding the Blue lakes more mature due to the less visibility of the bean. However, the Blue lake was still a very good tasting bean."

"Amethyst was preferred in our family as it was easier to pick, cook, and eat. Plants & fruit lasted longer than the Blue Lake 274"

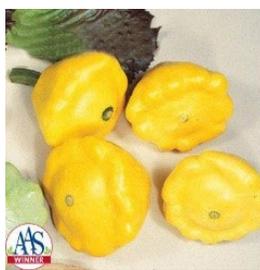
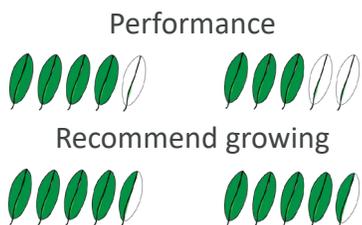
"Both varieties germinated and thrived in our raised garden bed. However, we liked the flavor of the traditional Blue Lake green beans the best. The Amethyst beans were interesting to grow due to their unique color, but that's not enough to convince me starting growing this particular variety"

# Warm-Season Vegetables

## Summer Squash



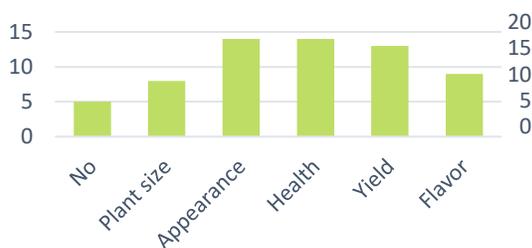
**Gold Rush**



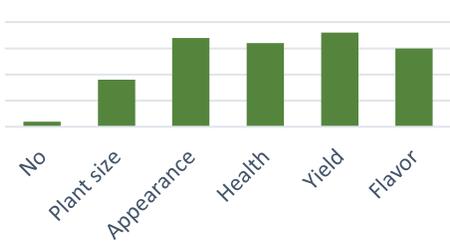
**Sunburst**

25 Reviews

### Recommend Gold Rush



### Recommend Sunburst



## Analysis

Goldrush had a better overall performance among gardeners with sunburst standing out in appearance, yield, and flavor. Both were equally recommended for Ohio gardeners.

### Germination



### Health



### Attractiveness



### First Harvest



### Higher Yields



### Taste



## Gardener Comments:

"Gold Rush plants died after harvesting 2 squash. Very disappointed."

"Noticed a difference in leaf color. Goldrush was darker green. The taste test showed that the Sunburst was very tender and of good consistency where the Goldrush was softer, but of good squash flavor."

"Sunburst had a tougher mouthfeel. And although the plants produced later, there was a larger quantity of them."

"The gold rush looks lovely but has yet to yield any fruit. the sunburst, however, has been generous every week!"

"Sunburst was doing really well until the squash bugs got to it. I actually did not even get any squash from the gold rush because of the bugs. The sunburst was wonderful"

"Really nice pair to grow together, along with a green zuke variety, for a good mix of summer squash"

"These plants were large and healthy."

"Both of these squash plants were the healthiest we've ever planted. There was no problem with insect pests which we've had in prior years. There was good yield for both. I preferred the taste and texture of the Gold Rush but that is more a personal preference than anything else."

"Very healthy plants- very few pests- high yield"

"I was excited to try a patty pan variety, but was extremely disappointed in the taste. I have bought patty pans at farmers' markets previously and I thought their taste was rather good. Not these. Even if picked small, there were lots of seeds and the skin was tough. My Sunburst variety tasted much better, but to date, it has only produced three fruits."

"Sunburst gets a slightly better yield and a slight edge on flavor"

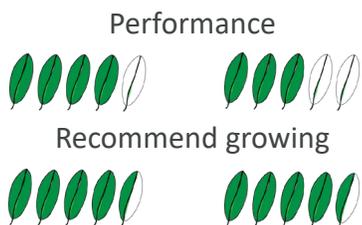
"Both varieties were amazing! Large and healthy plants, lots of produce, and good flavor"

# Warm-Season Vegetables

## Sweet Peppers



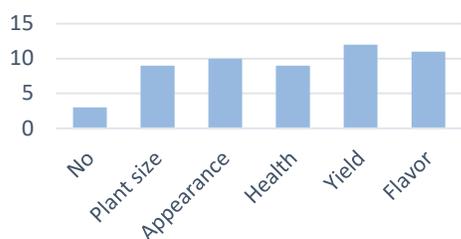
Carmen



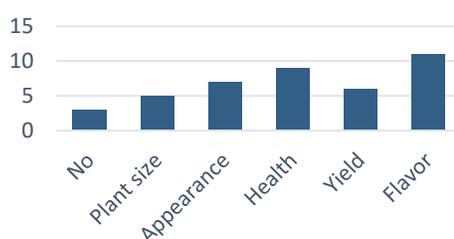
Glow

22 Reviews

### Recommend Carmen



### Recommend Glow



## Analysis

Both varieties were highly recommended for Ohio gardeners.

Carmen performed well with better plant size, appearance, and yield. Glow held its own with similar plant health and flavor to the Carmen.

### Germination



### Health



### Attractiveness



### First Harvest



### Higher Yields



### Taste



### Gardener Comments:

*"Carmen production was higher; Glow was nicely shaped"*

*"Glow needed support for the heavy fruit load of the plant. I would grow either or both of these again."*

*"Both SO delicious. Did very well"*

*"Both plants were small and produced only a few peppers"*

*"Loved both plants/ Tasty and fun to watch grow."*

*"Both have excellent yield"*

*"Overall, Carmen was the better pepper plant in all areas except in taste, Glow had a slightly better sweetness. I would plant Carmen again."*

*"Glow had larger plant size and larger produce"*

*"Seedlings in ground 6/10/21. I left some peppers on the plant till they turned colors. Carmen's yield, size of individual peppers, and red color was very appealing. Glow's smaller yield and pepper size made it less preferred. Sweet pepper flavor same in both."*

*"Had very low yield with the Glow. Glow plants were very slow to grow once transplanted to the outdoors vs. the Carmen plants."*

*"Glow was the sweetest golden pepper I have ever eaten."*

*"Carmen is the only one that grew after being transplanted to the garden. It also had a LONG growing season - We were still harvesting in November"*

*"I have never had peppers perform so badly. Don't know if it was from being in a container."*

# Warm-Season Vegetables



Striped German

## Tomatoes

### Performance



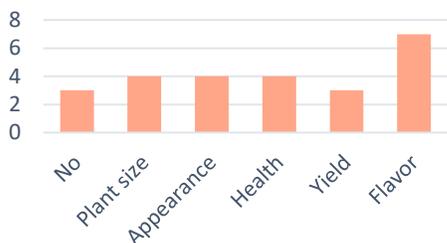
Recommend growing



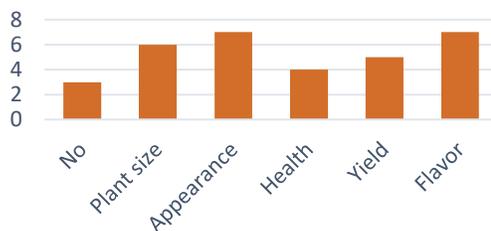
Better Boy

12 Reviews

### Recommend Striped German



### Recommend Better Boy



## Analysis

Better Boy outperformed Striped German in plant size, speed of germination, and time to maturity. Gardeners found the Striped German more attractive. Both varieties were recommended for Ohio Gardeners.

### Germination



### Health



### Attractiveness



### First Harvest



### Higher Yields



### Taste



## Gardener Comments:

*"Plants got huge! and a lot of yield for both. both great flavor"*

*"Produced well"*

*"My tomato results were so bad. i battled diseases all season long. The diseases effected fruit production. It was a very disappointing year for me."*

*"Better boy does not seem to have any disease resistance. I have grown this variety in prior years and it always seems to get early blight long before any other variety and despite efforts to fend it off, I always seem to lose those plants specifically"*

*"I started both varieties indoors in seed starter containers. I did not allow enough transition time in hardening the plants off, and they did not survive."*

*"Both types germinated well but died once transferred outside"*

*"Striped German tasted better, but Better Boy grew healthier and better."*

*"Problem with stink bugs eating Better Boy tomatoes. Not a problem with Striped German"*

*"The Striped German was so beautiful!"*

[Table of Contents](#)

