Which variety should I grow?

This is an important question. Growing a well-adapted variety can result in higher yields, more flavorful produce, and reduced chemical applications to control pests and diseases. Unfortunately, it is also a tough question to answer. Because of the high cost of trialing vegetable varieties, there is very little information on variety performance specific to the various regions within Tennessee. By taking a community based approach to vegetable trialing, we can answer this important question.

How do I get involved?

All gardeners are welcome to participate, whether a gardening novice or an Extension Master Gardener. There are three easy steps to getting involved.

Step 1: Select your trial

Applications are available at your local extension office and online. Take a minute to flip through this seed catalogue and check out the available trials for this year. Each trial contains two varieties that you will grow side by side to compare throughout the season. You can select multiple trials (max of 5).

A small fee of $1 per trial will be assessed to help cover the cost of seed.

An additional fee of $3 to cover shipping also applies to all orders.

We think it is especially important for children to be involved with gardening and to learn about the science behind evaluating our food sources. Because of this, each participant under 18 yrs old will receive one free trial per year. Extra kid-focused material will also be included with each child’s trial.

Step 2: Grow your garden

After we receive your application, we will send you a kit containing information on the trials you selected.

Each kit will contain the following:
- seed for two varieties
- a map to prepare your rows
- information specific to the crop species you selected, including planting date, plant spacing, nutrient requirements, et.
- an evaluation sheet

Step 3: Tell us what you think

Fill out your evaluation sheet throughout the growing season (see page 2 for an example). Be sure to note things like germination, disease susceptibility, yield, and flavor. You can also let people know how your trials are performing throughout the season by posting pictures on social media using #TNgardenVarTrial.

At the end of the season, we will compile all of the results from across the state into an annual report.

We hope that you will join us in answering the question, which variety will grow best in my home garden.

Tennessee

Dr. Virginia Sykes
Assistant Professor
Variety Testing and Agroecology
vsykes@utk.edu, 865-974-7285

Dr. Natalie Bumgarner
Assistant Professor
Residential and Consumer Horticulture
nbumgarn@utk.edu, 865-974-7324
Home garden vegetable trial and taste tests

You are invited to participate in a research study. You will be asked to complete this form that should take about 10 minutes of your time. There are no foreseeable risks associated with this study other than those encountered in everyday life. All data will be kept confidential. No identifying information about your garden evaluations will be shared and submission of this evaluation is completely voluntary. Information will be used to assist home gardeners in TN select the best vegetables for their home gardens. The information in the study records will be kept confidential. No reference will be made in reports which could link participants to the study. If you have questions at any time about the study please contact Dr. Natalie Bumgarner at nbumgarn@utk.edu. If you have questions about your rights as a participant, you may contact the University of Tennessee IRB Compliance Officer at utkirk@utk.edu or (655) 974-7697.

CONSENT:

I have read the above information. I have received or had the opportunity to print a copy of this form. (Files of forms can be found at: https://extension.tennessee.edu/MasterGardener/Pages/Vegetable Garden Trials.aspx). I agree to participate in this study.

Thanks for your participation!

1. Tennessee county: 

2. Gardener Name: 

3. Please select cultivar 1:
   Blue Lake Bush 274

4. Please select cultivar 2:
   Jade II

5. How was this trial grown?
   - In soil in garden
   - In soil in raised bed
   - In soilless mix in raised bed
   - In container

6. How was this trial fertilized?
   - No fertilizer materials were used
   - Compost alone was used
   - Compost was used with some other type of organic fertilizer (bonemeal, bloodmeal, etc.)
   - Conventional fertilizers (granular or soluble) were used
7. Was there a failure of this trial that will prevent you from evaluating further?
- No
- Yes, due to human error (timing, watering, site, etc.)
- Yes, due to poor germination (seems to be seed issue rather than watering, etc.)
- Yes, due to insects or disease that prevented the crop from reaching maturity and harvest
- Yes, due to wildlife issue
- Yes, due to an unlisted or unknown issue

8. Please compare the performance of the two cultivars in the trial for each one of the traits listed in the 6 columns.

<table>
<thead>
<tr>
<th>Trait</th>
<th>Blue Lake Bush 274</th>
<th>Jade II</th>
<th>Same</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germinated best</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Had healthier plants</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Produced first</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Produced higher yields</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Had more attractive fruit</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Tasted better</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

9. Please rate the overall performance of Blue Lake Bush 274:

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10

10. Please note the days from seeding until harvest for Blue Lake Bush 274 and other comments about performance.


11. Why would you recommend Blue Lake Bush 274 for other Tennessee gardeners?
- I would NOT recommend it
- Yield
- Plant health
- Fruit appearance
- Plant size
- Flavor

12. Please rate the overall performance of Jade II:

[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] 9 [ ] 10

13. Please note the days from seeding until harvest for Jade II and other comments about performance.


14. Why would you recommend Jade II for other Tennessee gardeners?
- I would NOT recommend it
- Yield
- Plant health
- Fruit appearance
- Plant size
- Flavor
2019 Vegetable Trials

Bean

1. Green Snap

**Blue Lake 274**
60 days. Standard bush bean with good yields of rounded pod beans (OP, untreated)

**Jade II**
60 days. Vigorous, upright plants. 6-7” pods. Resistance to BMV, CTBMV, and R. (OP, untreated)

2. Compact Snap

**Mascotte**
50 days. Small, upright plant yields slender, stringless beans. Resistance to BMV, HB, and A. AAS winner. (OP, untreated)

**Calima**
55 days. Slim, straight dark green pod with excellent flavor. Pods held conveniently at the top of stocky bushes. (OP, untreated)

3. Green Pole

**Malibu**
75 days. Round bodies, light green bean on strong vigorous plant. Resistance to BMV, CTBMV, and HB. (OP, untreated)

**Kentucky Blue**
73 days, 7-9 ft tall plants with a long harvest season. Resistance to BMV. (OP, untreated)

4. Heritage Pole

**Turkey Craw**
67 days. Heirloom variety common to the Cumberland Gap. 3.5 - 4” beans, brown on one side and buff on the other (OP, untreated)

**Hill Family Greasy**
Heirloom bean out of Haywood County, NC. Eight distinctive shapes and colors. (OP, untreated)
2019 Vegetable Trials

Okra

5. Okra

**Jambalaya**
50 days. Early, dark green okra for productivity and taste on a compact plant. (F1, untreated)

**Hill Country Red**
70 days. Bicolor red and green pod, best picked small (3-4”) on a 4 ft plant. (OP, untreated)

Corn

6. Sweet

**Sweetness**
68 days. Early bicolor with good germination in cool soils, strong plant with good ear tip fill. (F1, treated, syn - isolate from sh2 and su hybrids)

**Temptress**
70 days. Good eating quality and performance in the garden due to seedling vigor. (F1, treated, syn - isolate from sh2 and su hybrids)

Corn Genetics

Sweet corn is the result of a few recessive genes that affect the conversion of sugar to starch. Several different genes are utilized in modern sweet corn breeding. In addition to the isolation criteria listed for each gene type, all sweet corn hybrids should be isolated a minimum of 250’ from field corn and popcorn in order to maintain quality.

- **Sugary (su)** - average sugar content, shelf life of 1-3 days
- **Sugary Enhanced (se, se+)** - slightly higher sugar content, shelf life of 3-5 days, very tender
- **Supersweet (sh2)** - high sugar content, shelf life of 5-10 days, require warm soil to germinate, ISOLATE from non-sh2 hybrids
- **Synergistic (syn)** - moderate sugar content, shelf life of 3-5 days, tender, ISOLATE from sh2 and su hybrids for best performance
- **SuperSeedWare (SSW)** - similar to sh2 but germinate well in cool soils, ISOLATE from non-sh2 hybrids
2019 Vegetable Trials

Cucumber

7. Garden Slicer

Marketmore 76
58 days. Dark green, 8-9”, slender fruit. Resistance to CMV, DM, S, and PM. (OP, untreated)

Bristol
55 days. Vigorous plants yield 7-8” long slicer cucumbers. Resistance to A, ALS, CMV, S, ZYMV, DM, PM, and PRV. (F1, untreated)

8. Compact

Spacemaster
60 days. Dark green fruit, 7-8”, on short vines without runners. Good for small gardens, raised beds or containers. (OP, untreated)

Bush Crop
62 days. Compact plants produce 6-8” fruit that are good for slicing or pickling. (OP, untreated)

9. Pickling

Cool Customer
55 days. Vigorous plant produces 4-5” fruit over a long harvest window. Uniform, blocky fruit with good taste and texture that can well. (OP, untreated)

H-19 Little Leaf
52 days. Straight, green, 8-9”, slicing cucumber with uniform production and appearance. Resistance to A, ALS, BW, CMV, DM, and PM. (OP, untreated)

10. Speciality

Suyo Long
61 days. Traditional, long-fruited, Asian type cucumber that is not bitter. Ribbed fruit are straight if trellised and up to 15” long. (OP, untreated)

Itachi
55 days. White fruited, Asian type cucumber with 9-11” fruit that are not bitter. (F1, untreated)
**2019 Vegetable Trials**

### Muskmelon

11. **Muskemelon**

- **Ambrosia**
  - 85 days. Round muskmelon, 4-5 lbs, with peach colored flesh and good aroma. Resistance to DM and PM. (F1, untreated)

- **Trifecta**
  - 80 days. Aromatic muskmelon with dark orange interior and light ribbing and netting. Resistance to DM. (OP, untreated)

### Watermelon

12. **Icebox**

- **Sugar Baby Bush**
  - 65 days. Early icebox type melon with short vine, 5-8 lb fruit that is nearly solid dark green when harvested. (OP, untreated)

- **Baby Doll**
  - 70 days. Early maturing icebox type melon with 6-10 lb seeded, yellow fleshed fruit. (F1, untreated)

### Pumpkin

13. **Ornamental**

- **Moonshine**
  - 100 days. Uniform, smooth-skinned fruit that are 8-12 lbs and good for decorating or carving. (F1, untreated)

- **Sunlight**
  - 100 days. Small to medium sized decoration pumpkin that has a true yellow, 4-6 lb fruit. (F1, untreated)

### Butternut Squash

14. **Small Fruit**

- **Butterscotch**
  - 100 days. Small (1-2 lb) butternut fruit on a short vine. Resistance to PM. (F1, untreated)

- **Honeynut**
  - 110 days. Small (0.5 to 1 lb) butternut fruit on a short vine. Resistance to PM. (OP, untreated)
2019 Vegetable Trials

Summer Squash

15. Patty Pan

**Sunburst**
50 days. Bright yellow, scalloped, patty pan squash with distinct green color at blossom ends. AAS winner. (F1, untreated)

16. Small Fruit

**Lemon**
55 days. Bright yellow small fruited squash, unique in shape with the size and color of a lemon. (OP, untreated)

**Janue et Verte**
50 days. Light green patty pan with tulip shape and slight green stripe. (untreated)

**Desi**
40 days. Early producing bush-type plant. Round fruit about the size of baseballs. (OP, untreated)

17. Green

**Pantheon**
50 days. Costata type summer squash with an upright bush habit. Fruit have a light green stripe and the flower is commonly eaten. (F1, untreated)

**Easy Pick Green**
45 days. Dark green fruit produced on an open plant. No spines on stems and fruit can be easily twisted off when picking. (F1, untreated)

2018 trial comparison of Bossa Nova and Flamino summer squash. Image Credit: Natalie Bumgarner
2019 Vegetable Trials

Summer Squash

18. Yellow Zucchini

**Golden Star**
55 days. Dark yellow zucchini on a compact plant. Best for picking at 6-10”. (F1, untreated)

19. Yellow

**Tempest**
54 days. Yellow crookneck with slight ribbing and stripes. Pick at 4-7”. (F1, untreated)

**Easy Pick Yellow II**
45 days. Yellow zucchini with compact habit and open plant habit. Stems are nearly spine free and fruit twist off plant easily. Resistance to PRV, WMV, and ZYMV (F1, untreated)

**Zephyr**
54 days. Slender, yellow summer squash with green color on blossom end. (F1, untreated)

Basil

20. Genovese

**Aroma II**
65 days. Classic genovese type basil with resistance to Fusarium. Should be started as transplant, not direct seeded. (F1, untreated)

**Dolce Fresca**
70 days. Combination culinary and container value with a compact shape. Should be started as a transplant, not direct seeded.

**Disease Abbreviations**
A (Anthracnose)
ALS (Angular Leaf Spot)
BW (Bacterial Wilt)
BMV (Bean Mosaic Virus)
CMV (Cucumber Mosaic Virus)
CTBMV (Curly Top Beet Mosaic Virus)
DM (Downy Mildew)
HB (Halo Blight)
PM (Powdery Mildew)
PRV (Papaya Ringspot Virus)
R (Rust)
S (Scab)
WMV (Watermelon Mosaic Virus)
ZYMV (Zucchini Yellow Mosaic Virus)

**Additional Abbreviations**
OP (Open Pollinated)
2019 Flower Trials

Flowers

21. Zinnia

Queen Red Lime
Unique burgundy outer petals that are light green at the flower center. Border or cutting plant. Seeds can be started as transplants or direct seeded.

Candy Mix
Colorful combination of 2-3” blooms on a 30” plant. Border or cutting plant. Seeds can be started as transplants or direct seeded.

22. Sunflower

White Nite
60 days. Cream to yellow petals against a dark center. Single stem plant that is 6-7 ft tall.

Sonja
70 days. Dark orange sunflower petals with dark center. Plants have multiple flowering stems. Plants are 3-4 ft tall.

23. Nasturtium

Alaska Mix
55-65 days. Green and white variegated foliage on compact mound-shaped plants. Single, 2” flowers in yellow, crimson, orange, salmon, and cherry.

Trailing Mix
55-65 days. Green foliage with flowers in red, rose, orange, and yellow. Perfect for hanging baskets and containers or as a ground cover.

Image credit: Andy Pulte
Blind Trials

Name recognition is a good thing when it helps us find a variety that we have tasted or grown before and that we know we like. When it comes to trialing varieties, however, name recognition can sometimes result in biased evaluations. To evaluate the extent to which name recognition might be influencing our trial results, we have decided to run three blind trials this year. These trials will be executed in exactly the same way as our regular trials, but each variety will be assigned a code in place of the variety name. In our year end report, we will reveal the true variety names and the winners for each of these trials. If you are interested in participating in a free blind trial, please check the appropriate box on your order form and indicate whether you would like a bean trial, cucumber trial, squash trial, or have no preference.

Pizza Trial

For our 18 and under crowd only! This year, we are offering a free pizza trial for kids. Each participant will receive seed of two tomato varieties and two basil varieties. No need for a 10 ft row on these trials. Participants should plan on growing one plant of each variety and these can be grown in containers. Instructions on how to grow and evaluate your plants will be included along with a recipe for turning your plants into pizza!
Credits

This project is conducted for educational purposes only. No profits are made from this program. Descriptions and photographs of varieties in this catalog were compiled from various seed company catalogues, including Harris Seeds, Johnny’s Selected Seeds, All American Selections, Territorial Seeds, Bonnie Plants, and Holmes Seed.

We would like to give special thanks to our industry collaborators

*PanAmerican Seed*

and

*Johnny’s Selected Seeds*

for their help in making this program affordable to all participants.

We would also like to thank our volunteers who help to

More Information

For more information on the University of Tennessee Home Garden Variety Trial program, please visit our website at

tiny.utk.edu/hgvt

or contact us directly

Dr. Virginia Sykes  
Assistant Professor  
Variety Testing and Agroecology  
vsykes@utk.edu, 865-974-7285

Dr. Natalie Bumgarner  
Assistant Professor  
Residential and Consumer Horticulture  
nbumgarn@utk.edu, 865-974-7324