W 436

Tennessee Home Fruit and Vegetable Garden

2024 CALENDAR

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INSTITUTE OF AGRICULTURE
THE UNIVERSITY OF TENNESSEE

2024 Tennessee Home Fruit and Vegetable Calendar

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This calendar has been developed to assist you in formulating an overall plan for your residential vegetable garden and fruit production. Utilize the calendar to schedule various planting, harvesting, and management practices. However, there are many other excellent resources available from UT Extension that will be an asset to you in planning and managing your garden, so they are linked within this calendar. And this calendar is also available online as a fillable PDF at tiny.utk.edu/W436.
We hope this calendar is one step in your successful home fruit and vegetable journey.

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Getting the Most from the 2024 Home Vegetable and Fruit Calendar

Step 1. Be aware of climate and temperature trends in your specific location.
The dates listed in the calendar are averages for different regions of the state. However, there is a large range in growing season length across Tennessee, so it is always good to be familiar with the local climate data to most usefully adapt dates from this calendar.

A brief table is below. Additionally, more detailed information can be found by consulting with frost/freeze tables for Tennessee.
This National Oceanic and Atmospheric Administration (NOAA) publication will allow you to look at frost/freeze probability data for all stations in Tennessee.

	Bristol	Chattanooga	Clarksville	Crossville	Dyersburg	Jackson	Knoxville	Lawrenceburg	McMinnville	Memphis	Mtn. City	Nashville
Last Spring Frost*	May 3	April 17	April 27	May 10	April 15	April 18	April 22	April 30	April 28	April 9	May 26	April 21
First Fall Frost*	Oct. 6	Oct. 21	Oct. 4	Oct. 4	Oct. 16	Oct. 13	Oct. 17	Oct. 5	Oct. 6	Oct. 30	Sept. 18	Oct. 10

**The values reported here are the most conservative because they are dates where there is only a 10 percent chance of a frost occurring after (spring) or before (fall) these dates.*

Step 2. Utilize the full selection of UT Extension publications and resources for home gardeners.

Check out UThort.com or the UT Extension publications catalog to find all of these publications and more.

W 346-A Site Selection and Soil Testing

W 346-B Garden Planning, Plant Preparation and Planting

W 346-C Managing Plant Nutrition

W 346-D Plant Management Practices

W 346-E Building and Using Raised Beds

W 346-F Season Extension Methods

W 346-G Stewardship in Soil Management

W 346-H Growing Tomatoes

W 346-I Harvest and Storage

W 661 Conventional and Organic Garden Products

W 316 Home Vegetable Garden Disease Control

PB 595 You Can Control Garden Insects

PB 1622 Disease and Insect Control in Home Fruit Plantings

Vegetable Gardens Archive – A series of publications on garden vegetables

TASKS FOR JANUARY

- Check out this calendar as a fillable PDF to keep records through the year. Tennessee Home Fruit and Vegetable Garden Calendar
- Place orders for bareroot fruit crops after making selections for your location and needs. tiny.utk.edu/FruitSupplierList
- If you plan to graft trees/vines, collect and store scion wood.
- Work on your garden layout and planting plans for this year. These plans should be based on a rotation among vegetable plant families as well as any pest and disease issues that were seen the prior year. Test germination on remaining garden seed to ensure viability. See UT Extension Publication W 316 Home Vegetable Garden Disease Control.
- Gather materials for producing transplants. These should include new or sanitized and pathogen free substrate. See UT Extension Publication W 346-B Tennessee Vegetable Garden: Garden Planning, Plant Preparation and Planting.
- Order seeds for your 2024 garden, especially those for transplants. Check out UT trial results to support your selection. See UT Extension publication W 1162 Tennessee Home Garden Variety Trial Report.
- In some parts of Tennessee, seeds for cool-season spring transplants will need to be started in January.
- Consider becoming a Tennessee Extension Master Gardener Volunteer; check here for local program options! https://mastergardener.tennessee.edu/how-do-i-become-a-master-gardener

Vegetable Gardening Through the Seasons

In Tennessee, your vegetable gardening can take place throughout the year. There are great options for spring, summer, fall, and even early and late winter crops that fall in two broad categories. Cool-season crops are those that can withstand some frost and grow best in spring and fall but not in the hottest part of summer. We can grow both spring and fall cool season crops in Tennessee. And some of the most hardy of those fall crops can even produce into the early winter or overwinter and be harvestable in the early spring. Warm-season crops are killed by frost but perform well in the heat of the summer. Below are some of the best crops to start with for spring, summer and fall gardens.

Great crops for spring planting and late spring/early summer harvest:
Leaf or small head (bibb, oakleaf, mini romaine) lettuce
Radish
Kale
Collards
Beets
Cabbage
Kohlrabi
Swiss chard
Snap peas

Great crops for late spring planting and summer/early fall harvest:
Peppers
Tomatoes
Okra
Beans- consider sequential planting
Cucumbers- consider sequential planting
Summer squash

Great crops for late summer planting and fall/early winter harvest:
Broccoli
Cabbage
Collards
Carrots
Beet greens
Leaf or head (bibb, oakleaf, romaine) lettuce
Turnips- for greens or roots

Great crops for fall planting that can produce in early winter or overwinter for spring harvest:
Kale
Spinach

JANUARY 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 Six weeks until early date to plant kale in West TN. Seed soon if using transplants.	**2** Prepare your garden plan—by hand or digitally.	**3** Make sure to follow a rotation of crop families.	**4** Research any new cultivars to try this year and check out the UT Garden trial report at uthort.com.	**5** Review cultivars and crops that performed well last year in your garden.	**6**
7	**8**	**9** When considering fruit plant purchases, those from tissue culture are lower in disease risk.	**10**	**11** ● NEW MOON Test germination of leftover seed from last year.	**12** Prepare seed order for remaining cool-season and warm-season seeds for transplants.	**13** Remember that many diseases can be prevented by ordering disease free seed.
14	**15**	**16** Purchase or gather materials to prepare transplants.	**17** Be sure to purchase pathogen free media and clean containers for transplants.	**18**	**19**	**20**
21	**22** These green colored squares remind you to keep track of your garden.	**23** There are several record sheets at the end of this calednar. There are also boxes on each month.	**24**	**25** ○ FULL MOON	**26**	**27**
28	**29**	**30**	**31** Remove or bury any mummy berries from blueberry plots to reduce disease.			

Notes on crops:	Notes on weather:	Notes on new cultivars to try:

TASKS FOR FEBRUARY

- Now is the time for dormant pruning on many fruit crops; make sure to remove any diseased wood while pruning for production.
- •Dormant sprays are also an important early season fruit practice. See UT Extension publication PB 1622 Disease and Insect Control in Home Fruit Plantings.
- Seed cool-season crops for transplanting if needed. Broccoli, cabbage, cauliflower and similar crops will need approximately 8 weeks from seeding to transplanting. A late March or early April planting will require an early February seeding. See UT Extension publication D 59 Cole Crops for Tennessee Gardens.
- Gather scion wood for grafting fruit trees if still dormant (this varies by year and region).
- Order remainder of garden seeds for the 2024 garden. Direct seeded crops can be ordered later, but ordering early provides best selection.
- Seed the earliest of warm-season transplants. An early May transplant date will require a February or early March seeding.
- If conditions allow, you may prepare soil for early seeded, cool-season crops. Allow plenty of time for cover crops to decompose. See UT Extension publication W 346-G Stewardship in Soil Management.

Join in on the Tennessee Home Garden Variety Trial

There is no better way to create the research foundation for garden crop and cultivar selection for Tennessee gardeners than to do the research together with Tennessee gardeners! Our Home Garden Variety Trial Program does just that by enabling home gardeners to select crops of interest, get seeds mailed to them and then grow the crops in their gardens. At the end of the season, Extension and research faculty at UT collect the data and prepare a report to share the results with gardeners across the state. Here are some of the top performers and our 2022 trial report: Tennessee Home Garden Variety Trial Report. We invite you to join us!

Get all the information to join with us in the 2024 trial at the Home Garden Vegetable Trial website.

Top Three Fruit Crops to Get You Started

Fruit crops can be rewarding and tasty, but they also can be a challenge if you don't start with crops that fit your time, space, and climate. While many folks dream of starting growing fruit for apples and peaches, our UT Extension horticulture team encourages beginning your fruit journey with small fruits that can fit a variety of spaces and sites to help you be successful right out of the gate!

Blueberries- One of the best options for low spray or organic growing, blueberries, especially rabbiteye types, can be productive for many years if soil and site are well managed. See August and check out these great blueberry options in UT Extension publication W 895-A Selecting Blueberries for Residential Production in Tennessee.

Blackberries- These native fruits to our region can come into bearing in only a year or two and can produce tasty fruit from early summer to late fall. There are many options than can be upright, thornless and relatively low maintenance for pests and diseases. See May and UT Extension publication W 895-B Selecting Caneberries for Residential Production in Tennessee.

Strawberries- In just around a year, you can have tasty strawberries from your own garden, container or raised bed. Don't overlook one of the quickest to bear and space efficient fruit crops for gardeners. See UT Extension publication W 895-C Selecting Strawberries for Residential Production in Tennessee.

Check out our fruit crop decision guide and our home fruit supplier list :

Reality and Expectations for Home Fruit

tiny.utk.edu/FruitSupplierList

FEBRUARY 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 Investigate trials of vegetables before making purchases to select the best crops and cultivars for Tennessee.	**2** Prepare seed order for warm season direct seeded crops.	**3**
4 ○ FULL MOON	**5** Consider using dormant oil sprays on your fruit trees to combat scale and other pests.	**6** Prepare garden soil in West TN if not too wet. Early seeding can be easier in raised beds.	**7** Six weeks until early date to plant kale in East TN and cabbage/broccoli in West TN. So, seed transplants now.	**8** Eight weeks from frost-free date in the warmest parts of West TN. Seed warm-season transplants now.	**9** ● NEW MOON Six weeks until early date to plant cabbage, broccoli, and cauliflower in East TN. Seed transplants now.	**10** Could direct seed peas, mustard, kale and collards in West TN if soil can be prepared.
11	**12** Monitor transplants closely to ensure that they are not over or underwatered.	**13**	**14**	**15** Pruning fruit trees can reduce disease pressure and increase production.	**16** Make sure that young transplants are not stretching. This could indiciate low light or high N.	**17**
18	**19**	**20** Prepare garden soil in Middle and East TN if dry enough.	**21** Make sure to store bareroot plants carefully if they arrive early.	**22** Eight weeks from frost-free date in much of Middle TN. Seed warm-season transplants now.	**23** Dormant prune blueberries and cut 10%-20% of mature plants each year to renew fruiting wood.	**24** ○ FULL MOON
25	**26**	**27** For caneberries, remove canes that fruited the previous season, then thin the rest.	**28** Could direct seed, peas, mustard, kale and collards in much of Middle TN.	**29** Eight weeks from frost-free date in much of East TN. Seed warm-season transplants now.		
Notes on crops:				**Notes on weather:**		

TASKS FOR MARCH

- Plant fruit trees or plants. Make sure to prevent bareroot stock from drying out prior to installation. They can be heeled in outdoors.
- Remove straw protection from strawberry plants before bloom.
- Assemble your spray materials to prepare for fruit season.
- Seed the remainder of warm-season transplants. Tomato transplants need 6-8 weeks, so March seeding means May transplants. See UT Extension publication W 346-B Garden Planning, Plant Preparation and Planting.
- Prepare garden soil if conditions allow. Remember that if you are tilling in a cover crop, the cover crop material may need a few weeks to decompose. See UT Extension publication W 346-G Stewardship in Soil Management.
- Seed or transplant cool-season crops. Hardy cool-season crops are usually seeded or transplanted 4-6 weeks before the frost-free date while less cold hardy cool-season crops are usually started 2 weeks prior. See Frost and Freeze charts weather.gov/media/ohx/PDF/frostfreezeprobs.pdf.
- Install row covers or low tunnels over early season transplants to increase day and night temperatures and support season growth. See UT Extension publication W 346-F The Tennessee Vegetable Garden: Season Extension Methods.
- Don't forget to harden off any transplants to reduce stress and loss once placed in the ground.

Tips and Tricks for Transplants

- **Start with a pathogen free soilless media.** Germination mixes are designed to start your seedlings off disease free. They are also designed to drain well while holding enough water to support germination and growth. Most are made from peat or coconut coir along with perlite.
- **Follow suggested temperatures for germination.** One of the most common issues that causes poor germination is lower than ideal temperatures. Warm-season crops — such as tomatoes, peppers and eggplants — will germinate slowly when too cool and are more likely to have disease issues.
- **Light is critical.** Most indoor locations don't have enough light to grow stocky seedlings. Watch your seedlings for color and stem thickness (are they stretching?). Supplemental fluorescent or LED lighting can be key.
- **Don't overwater.** Growing media should be allowed to dry out slightly (but not completely) between waterings. Air movement and light are important in managing the environment and drying out the media.

Top Ten Tomatoes for Tennessee Gardens

Tomatoes offer colors, sizes, shapes, flavors, and plant habits to meet the needs of many gardeners. Below are some great options that have performed well in Tennessee trials through the years.

- Determinate tomatoes 'top themselves' by forming a flower at the growing point at a certain time. They are typically shorter and easier to manage in the garden while also yielding over a shorter period of time.

- Indeterminate varieties keep producing new leaves and new flowers until killed by disease or frost. They will require more management but will produce over a longer time frame.

10. Tasti-Lee- high lycopene and good tasting red slicer on det. plant
9. Garden Treasure- an ind. red slicer with large fruit and good taste
8. Defiant- a small red slicer on a det. plant with good disease resistance
7. Chef's Choice Orange- a beautiful mid-sized orange fruit on ind. plant
6. Cherokee Carbon- a hybrid of two great ind. parents with purple fruit
5. Damsel- a medium sized pink tomato on a disease resistant ind. plant
4. Chef's Choice Yellow- large yellow fruit on productive ind. plant (on left)
3. Big Beef- productive and consistent disease resistant ind. red slicer
2. Celebrity- good plant size for det. with productive and consistent red fruit
1. Beefmaster- a large beefsteak tomato from a productive ind. plant

Find more tomato info in UT Extension publication W 346-H Growing Tomatoes.

MARCH 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 Use your soil test results to add pre-plant fertilizer applications to the garden.	**2** Keep track of crops on the record sheet at the back of the calendar.
3 Plant blueberry and caneberries when dormant in winter/early spring.	**4** Plant or seed lettuce outdoors in West TN. Plant Irish potatoes in West TN. Also direct seed beets.	**5** Site selection is essential and good drainage is a must!	**6**	**7** Could direct seed peas, mustard, kale and collards in East TN if soil can be prepared.	**8** Time to transplant cabbage, cauliflower, broccoli in West TN.	**9** Row covers or low tunnels can be a great way to push early season crops.
10 ● NEW MOON	**11** Watch for signs of maturity in cool crops such as radish to prevent harvesting too late.	**12** Early to mid-March is the best time to plant asparagus. They prefer a 50 degrees F soil temperature.	**13** Maintain succession seeding of cool-season leafy crops.	**14** For a 5/10 transplant date, this would be the seeding date for warm-season transplants.	**15** Carrots can be planted in most of the state in March.	**16**
17	**18** Early date to plant seed potatoes in East TN.	**19**	**20** Direct seeded cool-season leafy crops should still be mature in late April or early May.	**21** Remember that a cover crop needs a few weeks to break down before planting.	**22** Fertilize blueberry bushes at bloom, repeat in 6 weeks. Write down dates fertilized below.	**23** Tree fruits are fertilized about a month after bud break.
24	**25** ○ FULL MOON Early date to transplant cabbage, broccoli in East TN.	**26** Peas and potatoes should be all seeded by late March in West TN.	**27** Remove mulch on strawberries and place between rows. Monitor the weather in case a need to frost protect arises.	**28** Be prepared for succession seeding of cool season crops.	**29**	**30**
31	**Notes on crops:**			**Notes on weather:**		

TASKS FOR APRIL

- Finish site preparation if not completed. Use proper pre-plant fertilizer. See UT Extension publication W 346-C Managing Plant Nutrition.
- Finish direct seeding and transplanting cool-season crops to prevent them from maturing under hot summer conditions.
- Harvest may begin on the earliest seeded leafy crops or root crops.
- Begin purchasing transplants of warm-season crops.
- Be ready for spring spraying on fruit trees for disease protection.
- It is common to seed some direct seeded warm-season crops a bit before the frost-free date (beans, corn). Be cautious of soil temperatures, though, especially if you are seeding untreated seeds or supersweet corn.
- Transplants of warm-season crops can be planted in Tennessee in April after frost free dates. However, soil temperatures support root growth, and sometimes transplanting crops early is not all that helpful due to cool soils.
- Harden off your transplants before placing them in the garden. See UT Extension publication W 346-B Garden Planning, Plant Preparation and Planting.

Getting Great Germination in the Garden

1. Don't plant seeds too early when temperatures are below optimum as germination will be slower and chances of seed loss will be higher. See the table below that shows length of time to germination based on temperature.
2. Plant when soils are moist, but not saturated. Don't let seeds dry out.
3. Make sure there is good seed to soil contact to enable the seed to take up water to enable the germination process.
4. Don't plant the seed too deeply. See UT Extension publication W 346-B Garden Planning, Plant Preparation and Planting.

Note- Garden seeds can be treated with fungicides to reduce decay before or during germination, and there are also many biological options.

	Days to germination at 59 degrees farenheit	Days to germinate at 77 degrees farenheit
Snap bean	16	8
Sweet corn	12	4
Cucumber	13	4
Lettuce	4	2
Pepper	25	8
Tomato	14	6

Data from University of California Agriculture and Natural Resources (UCANR) publication 164220 Garden Notes.

Tips and Tricks for Raised Bed Gardens

If your site has poor or degraded soil, raised beds and containers can be a great way to grow home vegetables and small fruits. Raised beds can be built from kits or with do-it-yourself instructions. Wood, metal, composite materials, concrete blocks and even rocks can all be used.

A common bed width is 4 feet if accessed from both sides, and 2 to 3 feet if accessed from one side. Beds are generally constructed 6 to 12 inches in height but can be deeper. Shallow rooted crops, such as lettuce, spinach, kale, and other leafy crops may be produced in beds that are only 4 to 6 inches in depth. Taller and deeper-rooted crops, such as tomatoes and peppers require deeper beds. A smaller volume will retain lower amounts of water and nutrients. Since raised beds drain more rapidly than nearby level soil, deeper beds can decrease watering frequency. You can purchase raised bed mixes if your soil is not ideal. These mixes should have a range of particle sizes to support drainage and be free from weed seeds and pathogens. Remember they will need to be watered and fertilized more frequently than in-ground gardens!

Great crops for raised beds and small spaces:
Spring crops: Lettuce, radishes, beets, Swiss chard
Summer crops: Bush beans, peppers, determinate tomatoes, summer squash, trellised cucumbers
Fall crops: Cabbage, kale, spinach, carrots, lettuce
Fruit crops: Strawberries, compact blueberry and raspberry

See UT Extension publication W346-E The Tennessee Vegetable Garden: Building And Using Raised Beds.

APRIL 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 Make sure to follow soil test recommendations for pre-plant fertilization.	**2** Prepare mulched beds ahead of time if using plastic mulch.	**3** Don't forget to also prepare irrigation if using plastic mulch.	**4** Nearing the end of dates to direct seed lettuce and spinach.	**5** It could be a good time to plant beets and peas in East TN.	**6** Direct seeding of early beans and sweet corn could begin in West TN.
7	**8** ● NEW MOON	**9** Determine how much pest control materials remain from previous year.	**10** If buying transplants, look for stocky, dark green seedlings with no sign of pest or disease.	**11** Remove nearby wild brambles to lower the risk of pest and disease pressures.	**12** Direct seeding of early beans and sweet corn could begin in Middle TN.	**13** Keep track of the spring rains using the weather blocks at the bottom of the page.
14 Nearing the end of dates to direct seed kale in West TN.	**15** Many warm-season transplants can be placed in soil in Middle TN, but warm soil is essential for early growth.	**16** Make sure to transplant at a time when the soil temp is warm enough for good root growth.	**17** April and into May is the time to plant turnips in East TN.	**18**	**19** Blackberries are fertilized once when primocanes emerge and once following harvest.	**20**
21	**22** Late spring planting of fruit is possible, but the stress will be higher as temps warm. Water well!	**23** ○ FULL MOON Okra can be seeded in West TN if soil temps reach mid-60s. Warm soils are essential for okra!	**24** Stone fruit fertilizer can be applied in two portions, early and later, to adjust for fruit lost to late frosts.	**25** Control early weeds to combat insect, disease pressures.	**26** Remember: Don't apply insecticides during bloom to protect pollinators on fruit crops!	**27** When was that last frost this year? Make sure to note it!
28	**29**	**30**				

Notes on crops:

Notes on weather:

TASKS FOR MAY

- Keep on the regular control sprays for fruit crops following recommended guidelines in UT Extension publication PB 1622 Disease and Insect Control.
- Harvest cool-season crops and watch for pests/disease (see July).
- Seed succession plantings of beans and sweet corn. See UT Extension publication D 61 Sweet Corn for the Tennessee Vegetable Garden.
- Prepare for early season fertilization on small fruits; blueberries and blackberries are often fertilized about a month after bud break.
- Prepare beds for transplants. Black plastic can warm the soil and speed early growth. Provide irrigation if using plastic mulch. Sometimes natural mulches, such as straw, are applied a few weeks after planting as they can reflect light and actually slow soil warming.
- Continue transplanting warm-season crops. Peppers and eggplants prefer even warmer soil conditions than tomatoes and are often planted later. Make sure that young transplants are watered in and given a starter fertilizer solution to support early growth.
- Set up your irrigation system as transplants are placed in the garden. Drip irrigation is best to maintain dry leaves and reduce disease risks.
- Set up stakes, trellises, cages and support systems for your plants. It is best to have these set up at or soon after planting.
- Don't let weeds get started in the garden.
  See UT Extension publication W 346-D Plant Management Practices.

Getting Started with Scouting

Properly controlling pests and diseases in the garden and orchard relies upon preventative cultural and spraying practices. It also depends on close observation to be able to quickly address any issues that crop up.

- Do it frequently — at least once or twice a week.
- Inspect in a Z pattern if large or every plant if you have a small garden.
- Make sure to check the interior of the plants and the underside of leaves; don't just glance over the plants.
- Look for signs of insects and patterns of disease.
- Know your friends from your enemies; be able to ID beneficial insects.
- Take a hand lens, markers and bags for samples, and a camera.
- Do your own research on pests and diseases (see UT Extension publication PB 595 You Can Control Insects and UT Extension publication W 316 Home Vegetable Garden Disease Control), but don't be afraid to send in samples to your local Extension office (see UT Extension Office Locations website) or the UT Soil, Plant and Pest Center. See Soil, Plant and Pest Center website.

Tennessee Top 5 Tasting Blackberries

Research on fruit crops can be time consuming and sweaty, but it also can be pretty tasty! In recent years, a new blackberry cultivar trial has been installed at the Middle Tennessee Research and Education Center in Spring Hill, TN. Eleven different blackberry cultivars (see UT Extension publication W 895-B Selecting Caneberries for Residential Production in Tennessee) are being trialed to determine yield, health, and taste quality for Tennesseans. Our tasters were most interested in sweet, fruity and sour flavors along with size and perceived fresh taste and flavor intensity.

Tied for 5th:
Osage- a smaller berry that had good sweetness and low bitterness
Natchez- a large berry that was juicy with a bit of sourness

Tied for 4th:
Prime Ark Traveler- a small berry with good firmness and low bitterness
Kiowa- a very large and juicy berry with good sweetness and flavor intensity

3rd:
Prime Ark 45- a medium sized berry that tasters thought was fresh and juicy

2nd:
Ponca- a very sweet berry that was medium sized with low bitterness

1st:
Caddo- a sweet berry with high flavor intensity and low bitterness

MAY 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Record your favorite cool season crops this year at the end of the calendar.			**1**	**2** In many parts of TN, heat-loving plants such as peppers, eggplant could wait to be transplanted.	**3** Remember, it is about soil temps not just air temps.	**4** Seedless watermelons and supersweet corn will germinate poorly if soil is too cool.
5 Do your cool-season leafy crops need any fertilizer sidedressing?	**6** Direct seed cucumbers in west and Middle TN.	**7** ● NEW MOON Some gardeners wait until soil warms to install natural mulches, such as straw.	**8** Be ready to harvest cool-season crops at the peak of their quality.	**9** This is the early date for seeding okra in East TN.	**10** Succession planting could also be done for zucchini or cucumbers.	**11** Plan for fertilizing your blueberries. They prefer ammonium nitrogen sources.
12 Direct seed cucurbits in East TN.	**13** Remove weeds from strawberry canopy to improve airflow throughout season.	**14** Install bird netting over blueberries and caneberries to prevent birds from stealing your berries!	**15** Sweet potatoes are often one of the last crops to be planted.	**16** Continue succession seeding of corn and beans.	**17** Plan for weed control continuously through the season.	**18** When you do see diseases or insects, make sure to record them at the end of the calendar.
19	**20** Good irrigation in the first year is critical for establishment of new fruit crops.	**21**	**22** Harvest strawberries often. Remove and dispose of damaged berries to lower disease risk.	**23** ○ FULL MOON Be prepared to spray insecticides on blueberries if spotted wing drosophilia damage occurs.	**24** Be scouting on a regular basis to prevent getting caught off guard by pests/diseases.	**25** Have some common insecticides and fungicides on hand.
26	**27** Mulching tomatoes may help reduce the impact of early blight while moderating moisture in soil.	**28** Preventative sprays for vegetable diseases may need to begin in May.	**29**	**30**	**31**	
Notes on crops:			**Notes on pests:**		**Notes on weather:**	

TASKS FOR JUNE

- Scout for any issues with pests or diseases at least weekly. Continue cover sprays for fruit trees and if conditions support disease infection or if you see signs of disease, a protective spray program may be needed for vegetables. See UT Extension publication W661 Conventional and Organic Product Overview for Home Vegetable Gardeners in Tennessee and UT Extension publication PB 1622 Disease and Insect Control in Home Fruit Plantings.
- Tip pruning of caneberries as well as early picking of small fruits.
- Be on the lookout for maturity in the first corn and bean plantings (see July). See UT Extension publication D 58 Beans for the Tennessee Vegetable Garden.
- Manage soil after cool-season crops are removed. Those areas may be a location for a summer cover crop, such as buckwheat, to prevent weed growth and add organic matter.
- If a warm-season crop is planted immediately after cool-season crops are removed, make sure to follow a crop rotation.
- Apply fertilizer to blueberries and other small fruit.
- Some of the latest warm-season crops to be planted are often watermelons and pumpkins as well as sweet potatoes.
- Make sure your irrigation system is functioning well and manage weeds. See UT Extension publication W 346-D Plant Management Practices.

Edible Landscapes: Connecting Food and Landscapes

Incorporating edibles in your residential landscape is a great way to create produce, interest, and add to the ecosystem in your backyard! Edibles can be habitats for beneficial insects and pollinators and encourage birds and other wildlife. Edible landscapes are functional to provide both beauty and produce through the seasons.

What are some edible plant options to consider including in your landscape?

- Trees/Large Shrubs: Persimmon, pawpaw, red mulberry, Chinese chestnut, Chickasaw plum, and fig
- Shrubs: Blueberry, hazelnut, raspberry, blackberry
- Groundcover/low growing: Strawberry
- Vines: Grapes (bunch or muscadine), hardy kiwi

Getting Started Using Fungicides in the Garden and Orchard

- Protective fungicides are the main tool, so it is important to have sprays applied before infection windows, cover well with the spray, and follow recommended spray intervals.
- Few garden fungicides have strong curative properties; focus on prevention.
- Fungicides can't replace sanitation, rotation and disease resistant cultivars. Use these practices together for the best effect.
- Always follow the label and ensure that pollinators are protected.

Bacillus subtilis — Serenade Garden Disease Control, Cease	Organic. These products contain live bacteria and can generally be used up to day of harvest.
Captan — Captan	Protective fungicide for many fruits.
Chlorothalonil — Daconil, Bonide Fung-onil, Ortho Garden Disease Control	Best used as a protectant. Specific crops, mixing rates, pre-harvest intervals and max number of sprays per year are on label.
Copper (Copper sulfate, fixed copper) — Bonide Liquid Copper Fungicide, Monterey liquid copper, Camelot O	Organic. Some formulations are easier to get in solution and spray. Specific crops, mixing rates, pre-harvest intervals and max. number of sprays per year are on label.
Lime Sulfur — Hi-Yield lime sulfur spray	Organic. Can be applied dormant or in season to control a range of fungal and bacterial diseases in fruit crops. Very corrosive.
Mancozeb — Dithane, Manzate, Bonide Mancozeb Flowable w/ Zinc	Best used as a protectant. Specific crops, mixing rates, pre-harvest intervals and max. # of sprays per year are on label.
Myclobutanil — Immunox, Monterey Fungi-Max	Protectant with some curative activity. Pay close attention to label and listed crops.
Neem oil — Garden Safe Fungicide 3I, Monterey Neem Oil	Organic. Botanical extracts with insecticidal activity. Sprays should always be made to avoid flying bees and other pollinators.
Potassium bicarbonate —GreenCure, Milstop, Agricure	Organic. Specific diseases controlled or suppressed are on the label.
Sulfur — Bonide Sulfur Plant Fungicide, Yellow Jacket Special Dusting Sulfur, Espoma Earth-tone 3n1 Disease Control	Organic. Some sulfur products are mixed with an insecticide (Earth-tone 3n1 also contains organic pyrethrin), so sprays should be made to avoid flying bees and other pollinators.

For vegetables see UT Extension publication W 661 Conventional and Organic Product Overview for Home Vegetable Gardeners in Tennessee.

For fruits see UT Extension publication PB 1622 Disease and Insect Control in Fruit Planting

JUNE 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1 Are the tomatoes blooming yet? Mark it down on the page at the end of the calendar.
2 Succession planting of beans should be nearly done in West TN.	**3** Keep scouting for pests and disease. Check leaf undersides and interior leaves.	**4** Fertilize and irrigate blueberries as needed to promote plant vigor and fruit.	**5** Early beans may be close to harvest in many areas. Some can mature in only 50-55 days.	**6** ● NEW MOON Still time to get some okra seeded.	**7** Keep an eye out for cool season crops to harvest.	**8** Strawberry harvest may be nearing the end of the season.
9 Watch out for early blight on your tomatoes.	**10** Keep an eye on plant health and be ready with fungicide.	**11** Do the strawberries need renovation for future productivity? Also plan to fertilize.	**12** Harvest summer squash when the skin is still glossy.	**13** Watch for ripe blueberries! And, watch for insect pests. Spray only if observed.	**14** Be ready for sidedressing many crops that are setting fruit.	**15** Many warm-season crops, such as corn, many cucurbits can still be succession planted.
16	**17** Keep your eye on the blackberries. Many cultivars may be close to ripe.	**18** Soft tip blackberry primocanes when 8-12 inches over the trop trellis wire to encourage laterals.	**19** Succession planting of beans should be nearly done in East TN.	**20** Keep track of when you apply fertilizer and how much you apply.	**21** ○ FULL MOON Enjoy the longest gardening evenings of the year!	**22** Make sure to keep track of anything you spray. A record sheet is found on the back.
23 Keep an eye out for mature sweet corn. A 70-day cultivar seeded on 4/20 could be ready!	**24**	**25**	**26** A summer cover crop of buckwheat can work well behind a spring cool-season crop.	**27**	**28** Time your pumpkin planting to mature in early to mid-fall. August pumpkins are less exciting.	**29** A 100 day pumpkin seeded on June 30 would be estimated to mature around October 10.
30 If there have been frequent rains or lots of moisture, more protective fungicides might be needed.	**Notes on weather:**			**Notes on weather:**		

TASKS FOR JULY

- Keep blueberries and blackberries picked frequently for best quality and to reduce pest issues.
- Continue cover sprays for fruit trees. See UT Extension publication PB 1622 Disease and Insect Control in Home Fruit Plantings.
- Pick tomatoes, beans, corn and other warm-season crops
- Provide irrigation as needed but try to minimize leaf wetness and overhead watering.
- Manage vegetable nutrition through proper side dressing and in-season fertilizer applications. See UT Extension publication W804-A Getting The Most Out Of Your Home Vegetable Garden Soil Test.
- Manage weeds. See UT Extension publication W 346-D Plant Management Practices.
- Scout frequently for insect or disease issues and spray as needed. See June and see UT Extension publication W316 Home Vegetable Garden Disease Control.
- Select cool-season crops and cultivars for fall and make seed order. Some cool-season crop transplants may need started in July.
- Pumpkins should be seeded according to maturity. A 100-day pumpkin seeded on July 1 would be estimated to mature October 11.

Top Ten Cucumbers for Tennessee Gardens

From slicing to pickling to snacking, there is a cucumber for every garden and need. These warm season vine crops can be transplanted or direct seeded and can be grown in ground, beds or containers. We focus on disease resistance as well as taste and productivity in our cultivar trials. Below are some great options that have performed well in our trials through the years.

10. Patio Snacker- compact and productive 6-8" slicer cucumber
9. Martini- a light green 6-8" slicer with good production and novel color
8. Diva- AAS winning thin skinned cucumber
7. Spacemaster- compact plant with 8" dark green slicer fruit
6. Cool Customer- a productive large picking cucumber
5. Marketmore 76- Productive open pollinated 8-10" long slicer
4. Green Light- AAS winning, thin skinned snacker harvested from 4-8"
3. General- an 8" dark green slicer with good disease resistance and yield
2. Bristol- traditional 8" slicer with wide resistance and good production
1. Tasty Green- productive plant with light green, burpless fruit, tender skin

For more cucumber information, see UT Extension publication D 62 Vine Crops for the Tennessee Vegetable Garden.

Getting Started on Proper Harvesting

Warm-season Vegetables	
Beans, snap	While pods snap easily (as opposed to being tough and flexible) and seeds are still green.
Corn, sweet	Kernels should be filled out nearly to the end of the ear and milky if crushed. Silks dried down.
Cucumber	When seeds are small, flesh is still firm, and color is green.
Eggplant	When fruit is still shiny and the color has not dulled. Edible from 1/3 grown until full grown.
Muskmelon	When melons can be lifted and the vine pulls away from the fruit with little resistance (slips).
Okra	When pods are 2 ½ to 3 ½ inches long and tender.
Pepper	When full size and firm. Green is immature, and fruit will color to red, yellow, or orange and contain more sugars when ripe.
Potato, sweet	After reaching desired size, but before moist and cool fall soil conditions reduce quality and storage life.
Squash, summer	When skin is still tender and glossy and the large end (zucchini) is 1 to 2 ½ inches in diameter.
Squash, winter	When rind has hardened and is not easily scratched.
Tomato	When uniformly colored (pink to orange) but still somewhat firm.
Watermelon	When tendrils next to fruit die back and the rind on the underside of the fruit turns from white to a creamy yellow.

JULY 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 Order plugs for fall strawberry plantings.	**2** The earliest of fall cool season crops for transplants may need to be seeded in July. Make sure you have seeds!	**3** A 6-week-old transplant for an August 22 planting would be seeded today.	**4** Do not fertilize blueberries after July to prevent growth that can be at risk of winter injury.	**5** ● NEW MOON Keep an eye out for mature sweet corn- you must hurry to beat the varmits!	**6** Keep scouting: don't get too busy with harvests.
7 Don't forget to get those late pumpkins seeded soon.	**8** Don't let the weeds get ahead of you annual weeds that go to seed only create future issues.	**9** Have you seen any of those pesky tomato/ tobacco hornworms?	**10** Watch the irrigation and make sure that growing plants are receiving correct moisture.	**11** Practice good sanitation. If it is damaged/diseased remove it and place far from other crops.	**12** Keep on picking! It may be nearing peach time in TN! Best peaches are mid-July to mid-August.	**13** Record those harvests on the record sheets at the back of the calendar.
14	**15** Do you have enough seed for a late planting of summer squash or cucumbers?	**16** In many parts of TN, late July will be the time to start fall cool-season transplants.	**17** Remove floricanes of blackberry after fruiting to lower disease risk. Also, time for fertilizer.	**18** Don't let disease get ahead of you. There is still much harvest time left if plants are healthy.	**19** Make sure to follow pre-harvest intervals listed on pesticide labels.	**20** Keep a record of your sprays and track their efficacy for future reference.
21 ○ FULL MOON Look up some new recipes to try with your summer harvest!	**22** Make sure that you have enough seed for fall cool-season crops.	**23**	**24**	**25** Irrigate fruit crops as needed for the rest of the year to prevent stress.	**26**	**27** Fruit fill of berries is a critical time for adequate water.
28	**29**	**30** Are your Brussels sprouts planted? Long season cool crops may actually need to be planted soon.	**31**			

Notes on crops:

Notes on weather:

TASKS FOR AUGUST

- Keep late blueberries picked as well as keep watch for tree fruit.
- Keep picking warm-season crops. Proper picking times are critical to enjoy the highest quality in home vegetable crops (see July). Timely picking supports the highest level of production. See **UT Extension publication W 346-I Harvest, Handling and Storage of Produce.**
- Practice proper canning, freezing or drying to preserve garden produce for later use.
- Don't let the weeds get ahead of you and produce seeds.
- Late plantings of summer squash and other short season, warm-season crops, like cucumbers can be done this month.
- Keep an eye on soil moisture levels, irrigation and any need for side dressing for fruiting crops.
- Prepare soils for fall cool-season crops and maintain crop rotations. Transplant fall cool-season crops that take the most days to mature.

Squash for Tennessee Gardens

What would summer be in Tennessee without squash and zucchini? There are so many beautiful and tasty options. Summer squash are warm season crops that can be transplanted or direct seeded after frost. Many bear in 40-50 days, and many have good resistance or tolerance to viruses and disease.

10. Chiffon- compact and productive 6-8" slicer cucumber
9. Eight Ball- small dark green, round zucchini for small gardens and kids
8. Mexicana- dark green cousa type (on right)
7. Bossa Nova- AAS winning dark and light green zucchini
6. Sunburst- a unique patty pan with a green tip, AAS winner
5. Zephyr- yellow straightneck squash with a green tip and good production
4. Tempest- a light and dark yellow squash with very good flavor
3. Desert- traditional 8" slicer with wide resistance and good production
2. Green Tiger- light and dark green striped zucchini with good production
1. Grandprize- very productive yellow straightneck, wide disease resistance

For more information on squash, see **UT Extension publication D 62 Vine Crops for the Tennessee Vegetable Garden**.

Bountiful Blueberry for Tennessee

Three types of blueberries can be grown in Tennessee. Northern highbush (Vaccinium corymbosum) and rabbiteye (Vaccinium virgatum syn. V. ashei) are the most common, but rabbbiteye provides the best chance of success. Southern highbush are the third that have genetics from the others.

Rabbiteye- This type of blueberry is native to the southern US and has wider adaptability in terms of soil and management. They tend to be longer lived and more vigorous than highbush. Make sure to select cultivars with sufficient chilling requirements because many lower chilling cultivars frost damage on early blooms. Rabbiteyes have a later harvest season than highbush and will be ripe in July and August. Most rabbiteye varieties have resistance to anthracnose fruit rot and Phomopsis twig blight.

- Older cultivars known to perform well in TN- Tifblue, Premier, Brightwell, Powderblue
- Newer Cultivars of interest- Ochlocknee, Vernon, Columbus

Highbush- Native to moist or bog-like and prefer high organic matter sites. In mid-south Tennessee locations, northern highbush often performs best in cooler regions (they have greater chilling requirements) and generally require irrigation. They can be more disease prone and have a shorter lifespan versus rabbiteye. In recent years, genetics from both the northern type highbush and native southern blueberry species are being used to produce earlier fruit cultivars for areas not suitable for northern highbush. Make sure to select higher chilling southern highbush.

- Northern highbush cultivars to consider- Blueray, Bluecrop, Spartan, Chandler
- Southern highbush to consider- Legacy, Ozark Blue, Summit, Sweetheart, New Hanover

AUGUST 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 How can you determine when to plant fall crops? Example: a zucchini that will mature in 50 days.	**2** Knoxville first frost avg. is 10/22. 50 days plus 10 for fall slower growing 14 days to harvest is an 8/9 seeding.	**3** Transplants for many fall crops in east TN are planted in early to mid-Aug.
4 ● NEW MOON	**5** If you are buying fall transplants, look for young, actively growing plants.	**6** Make sure you have the seed for directed seeded cool-season crops.	**7** Side dress matted row strawberries with nitrogen to promote good fruit bud development.	**8** When should you plant fall crops? Ex: a broccoli transplant that will mature in 60 days.	**9** **10** Nashville first avg. frost is 10/28. 60 days plus 10 for slower fall growth. We can plan to harvest a couple weeks after frost. 70 days back from 11/11 is 9/2. Or 7/22 to grow a 6-week-old transplant yourself.	
11 Keep on scouting and manage weeds and sanitation. It can help this year and next year!	**12** Get those best of show crops ready for the county fair!	**13** Direct seeded fall cool-season crops will require attention and water for best germination.	**14** Continue irrigating perennial plants even if fruit production has stopped.	**15** How can you determine when to plant fall crops? Example: a lettuce that will mature in 35 days.	**16** **17** Nashville first average frost is 10/28. 35 day plus 10 for slower fall growth. We can plan to harvest for a couple weeks after frost, though. Count back 45 days from 11/11. Aim for about a 9/27 seeding.	
18	**19** ○ FULL MOON Plan your cover crops for fall and make sure you order enough seed.	**20**	**21** Consider cover crops for between rows of your fruit orchard.	**22** Winter squash is ready to harvest when rind hardens. Does it scratch with your fingernail?	**23**	**24**
35	**26** Continue irrigating through autumn to prevent drought stress.	**27**	**28**	**29**	**30**	**31** Record any disease issues and how well disease is controlled by any applied sprays.
Notes on crops:				**Notes on weather:**		

TASKS FOR SEPTEMBER

- Keep picking warm-season crops. Canning, freezing, and drying are all options for preservation. See UT Extension publication W 346-I Harvest, Handling and Storage of Produce.
- Don't let those late season weeds get ahead of you and go to seed.
- Keep an eye on soil moisture levels and manage pests as some of the warm-season fruiting crop harvests come to a close.
- Later planted beans, tomatoes, summer squash and other warm-season crops may require frequent attention in scouting and pest management to ensure good yields.
- Make sure that fall cool-season crops are properly watered and fertilized. Germination and early growth of leafy crops and brassicas requires even moisture and appropriate nitrogen levels. See UT Extension publication D 70 Root Crops for the Tennessee Vegetable Garden.
- Transplant and direct seed fall cool-season crops. Keep in mind that days to harvest estimate often need to be lengthened in the cooler and lower light days of fall. See UT Extension publication D 68 Leafy Crops for the Tennessee Vegetable Garden.
- Many fall cover crops are best seeded in September to get good stands and winter cover — even spring bloom for some!

Plants that Feed the Soil - Summer and Fall Cover Crops

Cover crops are planted when the soil would otherwise be bare between crops or growing seasons and may be beneficial to soil, water and plant relationships as well as pest, pathogen and weed management. September is a great time to establish cover crops for overwintering.

- Legumes (peas, beans, clover, vetch, alfalfa) have root nodules that contain N-fixing bacteria. This nitrogen will be available for later crops after the legume is killed and incorporated into the soil.
- Many cover crops are grasses (cereal rye, barley, wheat and oats) that would be grain crops if grown to maturity. They are grown because they are economical, easily established, and can produce large amounts of plant material in a relatively short period of time. These crops stabilize the soil, prevent erosion and help break some plant disease or pest cycles in addition to increasing organic matter.
- Buckwheat (on right), grape and radishes are examples of cover crops that are neither a grass nor a legume. These crops can increase organic matter, improve soil structure. Some brassicas have biofumigation properties (decomposing tissue releases compounds to suppress pests or disease in the soil) when incorporated.

See UT Extension publication W 346-G Stewardship in Soil Management.

Top Ten Leafy Greens for Fall Gardens in Tennessee

Have you been frustrated by bolting or bitter leafy crops in the spring? Give fall and try and include some great options beyond lettuce and spinach. Watering can be crucial, and keeping an eye on fertilization also is key. There is nothing like some fresh fall greens from your own garden!

10. Space spinach- rapid growing, disease resistant, harvest at any size
9. Bull's Blood beet greens- beautiful red heirloom harvested at any stage
8. Ruby Sky lettuce- a red leaf with good resistance to harvest at any stage
7. Salanova red or green bibb lettuce- compact, open heads
6. Black Magic kale- a dino kale type with long dark green leaves
5. Winter Density romaine- compact, dark green romaine for fall
4. All Star lettuce mix- a quick to harvest range of green to red for any site
3. Prizm kale- compact, medium green AAS winning frilly leaf type
2. Salanova red or green bibb lettuce- compact, open heads
1. Redbor kale- beautiful dark red leaf kale for gardens and containers

For more info see UT Extension publication D 68 Leafy Crops for the Tennessee Vegetable Garden.

SEPTEMBER 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	**2**	**3** Early fall is often the driest time of the year in TN. Be prepared to meet crop water needs.	**4** Begin selecting fruit cultivars to plant in the fall, dormant in the winter, or in early spring.	**5** Keep an eye out for pests/disease on your cool-season crops. Row covers can reduce insects.	**6** Most cabbage, broccoli, cauliflower should be trans-planted by mid-Sept. in West TN.	**7** Keep track of how much and how often watering is needed. Without rain 1-2 in/week is an estimate.
8	**9** ● NEW MOON Brassicas, lettuce and many fall crops are fast growing and may need a fertilizer sidedressing.	**10** Make sure that there is sufficient water for fall cool-season crops.	**11** Have you seen any of the pesky armyworms? If so, record it!	**12** Want a few leafy crops for fall without managing a whole garden? Build a small raised bed.	**13** Vetch and other legumes benefit from early fall seeding while rye can be sown later.	**14** Containers can also be a great way to produce a bit of fresh produce for late fall.
15	**16** Many cover crops may produce best in East TN with a September seeding.	**17** ○ FULL MOON	**18** September through November are the times to plant garlic across TN.	**19** In fact, here in TN, we can grow broth hardneck and softneck garlic. See November for info.	**20** Remove warm-season crops as they finish producing to lighten the load of fall cleanup.	**21** If the plants are healthy, it could be a great time to being a compost pile.
22	**23** It's getting close to the end of seeding for fall leafy crops in Middle and East TN.	**24** A row cover or low tunnel can add a couple of weeks to the fall season.	**25** Watch for high temps under cover on very warm September days.	**26** To assure good growth and fruit set in spring, maintain healthy foliage on fruits crops to frost.	**27** Soil tests should be taken 6 months before planting caneberries.	**28**
29	**30**					

Notes on crops:

Notes on weather:

TASKS FOR OCTOBER

- Continue picking any remaining warm or early cool-season crops. See UT Extension publication W 346-I Harvest, Handling and Storage of Produce.
- Keep an eye on soil moisture levels and manage pests as warm-season fruiting crop harvests finish and cool-season begins.
- If you are participating in the Tennessee Home Garden Variety Trial, be sure to send in your evaluations soon. See Home Garden Vegetable Trial.
- Ensure that fall cool-season crops are properly watered and fertilized. As temperatures cool, less water will be needed.
- Seed/transplant fall cool-season crops with shorter days to harvest.
- October is still a great time to seed cover crops.
  See UT Extension publication W 346-G Stewardship in Soil Management.
- Take soil tests and make adjustments to pH as recommended.

From the Garden to the Landscape: Consider Stepping up your Stewardship with Tennessee SmartYards

Are you looking for ways to have a biologically diverse landscape and protect natural resources while supporting wildlife? Tennessee Smart Yards is an educational and yard certification program for Tennesseans that teaches the "how to" aspects of stewardship to create healthier, more environmentally sound landscapes and communities. You don't have to be an expert gardener or landscaper to create a Tennessee Smart Yard. All it takes is a willingness to learn and a desire to act. Maintaining a Tennessee Smart Yard mutually benefits the environment and the homeowner by providing natural and functional beauty.

Visit the Tennessee Smart Yard website at: tnyards.utk.edu

Scaling Up: Tips for Tennessee Homesteaders

For the vegetable garden:
1. Be intentional about your planning, planting and harvesting.

- Create a planting plan to support good rotation and efficiency.
- Consider growing your own transplants.
- Plant in successions for extended harvest.
- Also consider season extension techniques.

2. Manage your soil for the present and the future.

- Use tillage only as much as is necessary.
- Soil test and carefully manage nutrition.
- Rotate to support soil health.
- Get converted to cover crops.

3. Get serious about your management methods.

- Utilize mulches—organic and/or plastic—and appropriate weed control.
- Irrigation can be a big asset.
- Be serious about your support systems—cages, stakes and such will lower disease and picking time.
- Know your pest and disease control options.
- See UT Extension publication PB 1622 Disease and Insect Control in Home Fruit Plantings.

For the home orchard:
1. Be realistic about the climate, site and your time and money investments.

- Check out the realities of home fruit with this simple flow chart to understand the range of management needs.

2. Select with the location and diseasze resistance*** in mind to reduce losses.

3. Make a plan for the space AND the time you need to grow high fruit crops.

Crop	Estimated square feet per plant	Planting to First Harvest	Planting to Full Crop	Life Expectancy
Apples – semi-dwarf/dwarf	120-750	2 to 4 years	4 to 6 years	15 to >20 years
Grapes – bunch muscadine	60-160	4 years	5 to 7 years	25 to >30 years
Blackberries	16-32	1 year	2 to 3 years	6 to 8 years
Blueberries	30-40	3 years	6 to 8 years	>25 years
Strawberries	1-2	1 year	1 year	2 to 4 years

OCTOBER 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 Remember, plants can survive low temp but may not grow and produce much yield in some areas.	**2** ● NEW MOON Make sure to clean up warm-season crops to prevent disease spread.	**3** Be on the lookout for fruit from late seeded warm-season crops.	**4** Also be on the lookout for first frosts in parts of East TN.	**5** Keep good notes on the cultivars that did well or not as well in your garden this year.
6	**7** Getting close to the end of the time to direct seed fall crops in West TN.	**8** Many cover crops can still produce well in East TN if planted in mid-October.	**9** You don't have to seed the whole garden in cover at once. Cool season sections can be last.	**10** **11** October is a great time to take soil samples. Take 10-15 sub-samples about 6 inches deep.		**12**
13	**14**	**15**	**16** Bring your tools in from the garden. Clean them well.	**17** ○ FULL MOON Extend the life of your tools with proper sharpening and oiling.	**18** Make sure that late season crops have adequate (but not excessive) water and nutrients.	**19** What were your favorite peppers and tomatoes this year? Make sure to write the varieties down.
20	**21** Sometimes the taste of brassica crops is better after being exposed to a bit of frost.	**22** Have you had a frost yet? Write it down in the record sheet in the back of the calendar.	**23** Review soil reports and make additions if needed to adjust pH for next year.	**24**	**25** Fall is a great time to address voles or other issues in fruit plantings.	**26**
27	**28** We are getting close to first frosts in many areas of West TN.	**29** Remove and dispose of floricanes that already fruited on caneberries.	**30** If apple scab, peach scab, or pear leaf spot occurred, rake and destory leaves to prevent disease overwintereing.	**31** Enjoy a home-grown jack-o-lantern for halloween!		
Notes on crops:				**Notes on weather:**		

TASKS FOR NOVEMBER

- Finish the picking of remaining warm-season crops. If frost is approaching, unripe tomatoes can be harvested to slowly ripen indoors. See UT Extension publication W 346-H Growing Tomatoes.
- Make sure to remove crop and fruit debris from the garden and orchard that was diseased to reduce inoculum. Sanitation in home fruit is also crucial and discussed below with some key examples.
- Fall is a great time to set up a compost pile with the (disease-free) debris from your garden along with leaf and lawn clippings. See Home Composting: A Guide to Managing Yard Waste.
- Ensure that fall cool-season crops are properly watered, fertilized and harvested. As temperatures cool, less water will be needed.
- There are some cover crops that can still be seeded in November, so don't assume that a late fall crop prevents you from seeding. See UT Extension publication W 235-G Cover Crops and Green Manures.
- Fall is a great time to address rodent issues by maintaining bare soil under the trees, removing or crushing dropped fruit, mowing between trees and perimeters, and using rodenticides if problem worsens. See UT Extension Publication PB 1868 Managing Wildlife Around Your Home.

In The Spotlight-Season Extension

Season extension is a great set of tools for gardeners to improve growth, productivity and survival in their fall garden crops!

- Floating row covers

These are nonwoven plastic films or agricultural fabrics applied directly over crops. They increase air and soil temperatures by trapping sunlight. Because of their light weight and permeability, they do not need support. Plants with tender growing points may need protection from abrasion by floating covers.

- Low tunnels

Low tunnels cover crop rows and are supported by 2 to 3 feet tall wire or plastic hoops and stretched tight to create the appearance of a miniature greenhouse. Tunnels can be made of agricultural fabrics or lightweight clear polyethylene plastic. Vents help prevent overheating. See UT Extension publication W 346 F Season Extension Methods.

Soil Testing to Prepare for Next Year

Fall is a great time to prepare for crop next year and success begins with soil testing. Knowing what nutrients are in your soil and the current pH and how they can be adjusted can make a big difference in your garden success.

Sampling: The Where (The results are only as good as the sample!)

- If your area is uniform, one composite sample can be made. Collect 10 to 15 subsamples in a pattern to make sure the sample represents the area.
- If the soil appears different in your garden spot, you will need to take multiple samples to represent each distinct area.

Sampling: The How

- If using a soil probe, take soil cores that are 6 inches deep since that is the common rooting depth of many vegetable plants.
- If using a spade, remove a shovelful of soil 6 inches deep. Then, take another thin slice of the soil with the spade that covers the entire 6 inches of the hole. The center of that slice is a great soil sample.
- Be sure to remove any grass, rocks, and other debris from the sample.
- Mix together all the subsamples in a clean (non-galvanized) bucket/ container and allow them to air dry before packaging.

Sampling: The Who

- The UT Soil, Plant and Pest Center has all the needed testing and mailing information. Soil test boxes can be obtained from a county Extension office. Keep in mind that raised beds with more than 25 percent non-soil should be tested as greenhouse media.
- Make sure to mark the tests you need (consider getting an organic matter percentage) and the crops you are growing on the sample sheet.

Soil Reports: The What

- Soil test reports provide information on current soil conditions and recommendations for amending this soil to reach optimum productivity for the crop. For more info check out UT Extension publication W 804-A Getting the Most Out of Your Home Vegetable Garden Soil Test Report.

Also, see the easy-to-use in-season fertilizer guide at the back!

NOVEMBER 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 ● NEW MOON Did you get your garlic planted? It isn't too late!	**2** Keep harvesting your various cool-season crops.
3	**4** Even if it is a mid-November seeding, a cover crop like rye can still be an benefit.	**5**	**6** It may even be close to a first frost in Memphis by now!	**7**	**8** Keep notes on the crops and cultivars that performed well for you this year.	**9** Write those notes in the record sheets in the back of this calendar.
10	**11** Clean up any stakes or debris from the garden.	**12** What were some of your pest issues this year?	**13** What were some of the disease issues you faced?	**14** Knowing your gardening challenges is great info to help select crops for next year.	**15** ○ FULL MOON	**16** There are many resistant varieties that can help you address disease issues.
17	**18**	**19**	**20** Adjust soil pH well before planting blueberries. pH lowering sulfur can take months to fully take effect.	**21**	**22** Carrots can be stored in ground for a little while, but be sure to pull before the ground freezes.	**23**
24	**25**	**26**	**27**	**28** Happy Thanksgiving with some great home grown crops on the table!	**29**	**30**
Notes on crops:				**Notes on weather:**		

TASKS FOR DECEMBER

- Harvest any remaining fall cool-season crops. Lettuce, chard and beets can be less cold hardy than kale and spinach in some areas.
- Take stock of the completed gardening season and make sure you have good records of problems encountered and control practices that worked well. Use the information from the completed season and rotation guidelines to plan for next year.
- Sort and count any remaining seeds to determine what may need to be ordered.
- While it may seem early, December can be a great time to order seeds for your 2024 garden, especially those you plan to grow as transplants (see January-March).
- Clean any remaining stakes, plants or debris from the garden (excluding any plants that you intend to overwinter). Try to rotate this overwintering area of the garden to make sure that every section receives a cover crop as often as possible.
- Clean, repair (if needed) and store your garden tools for next year.
- Make sure to do any sanitation that remains for home fruit.

Getting Started with Crop Rotation

Many pathogens infect related plants, so rotation ensures the same families are not planted in an area too often. Rotation is most effective against pathogens that survive in soil or on crop remains for a short period of time. It is recommended to rotate away from a crop family for 3 years, which is called a 4-year rotation. See UT Extension publication W 316 Home Vegetable Garden Disease Control.

Crop family	Common home garden crops
Apiaceae	Carrot, celery, parsnip
Chenopodiaceae	Beet, spinach, chard
Cucurbitaceae	Cucumber, squash, pumpkin, watermelon
Poaceae	Corn
Malvaceae	Okra
Brassicaceae	Broccoli, mustard, Brussels sprouts, kale, collards, kohlrabi, turnip, cabbage, cauliflower, radish
Solanaceae	Tomato, potato, pepper, eggplant
Alliaceae	Chives, garlic, leek, onion
Fabaceae	Beans, peas, edamame
Asteraceae	Lettuce, sunflower, endive

Spicing Up Your Winter with Microgreens

Microgreens are plant shoots that are harvested and typically eaten raw. They differ from sprouts because the roots are not eaten. Microgreens can be eaten at the seed leaf (cotyledon) stage, but often one to two true leaves are allowed to form and provide more plant weight. Microgreens are thickly seeded because they are harvested young and are typically 1-4 inches tall at the time of harvest. Production can vary by species, but often microgreens can be grown from seed to harvest in 10 to 21 days.

Microgreens can have a unique place in a meal as a garnish or added to salads, sandwiches, and smoothies. Microgreens are always plants that have edible stems and leaves. They are eaten raw to maximize flavor and nutrition and because cooking often destroys the small, delicate plants.

- Seeds- purchase microgreens mixes or use untreated garden seeds.
- Containers- shallow germination trays work, and small-scale batches also can be grown in containers such as plastic berry containers.
- Substrate- new germination mixes are a great way to begin, and there are also a range of fiber mats that you can also use.
- Site- many indoor locations with good light or supplemental lights can be used. Air movement is also needed.

Find more details about growing in UT Extension publication W 346 J Small-Scale Microgreen Production.

Cool season vegetables grown as microgreens	Warm season vegetables grown as microgreens	Herbs grown as microgreens
Kale, Broccoli, Cabbage, Beets, Swiss Chard, Pea, Lettuce, Mizuna, Arugula, Bok Choy, Turnip, Radish, Endive, Mustard, Cress, Carrot	Amaranth, Sweet Corn, Sunflower	Basil, Cilantro, Parsley, Fennel, Dill, Marjoram

DECEMBER 2024

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 ● NEW MOON	**2** It is almost seed catalog time. Don't be afraid to get some early orders in.	**3**	**4** It could be a great time to select and order bareroot fruit for next year.	**5**	**6** You could even test germination (take percent of 10-25 seeds) to confirm viability.	**7**
8	**9**	**10** Mulch strawberries when temperatures are expected to drop below 20 degrees F but only if they are dormant!	**11** Clean and store your tools for next year.	**12** It is a great time to service tillers and other equipment. Sharpen blades and change oil.	**13**	**14**
15 ○ FULL MOON	**16** Start to think about the garden plan for next year.	**17**	**18** Sort and count remaining seeds to prevent over-ordering for next year.	**19** Map out crop rotations for next year in light of diseases or pests encountered.	**20** Mulch blueberry bushes to a depth of 5-6 inches when dormant.	**21** The gardening days get longer from here!
22	**23**	**24**	**25**	**26**	**27**	**28**
29	**30**	**31**				

Notes on crops:	Notes on weather:

In-Season Nitrogen Fertilization for Vegetable Crops

Crop	Timing in season/fruit or plant size	Application rate/100-foot row, 36-inch centers			
		33-0-0 or 34-0-0 Ammonium nitrate	15.5-0-0 (calcium nitrate)	Bloodmeal, feathermeal (12-0-0)*	Soybean (7-1-2), cottonseed (6-2-1) meal or fish fertilizer (5-1-1)*
Tomato	1st fruits are 1" diameter	1 lb	2 lb	2.8 lb	5.7 lb
Pepper	1st fruits are 1" diameter	0.5 to 1 lb	1 to 2 lb	1.4 to 2.8 lb	2.8 to 5.7 lb
	Later in season (if needed)	0.5 to 1 lb	1 to 2 lb	1.4 to 2.8 lb	2.8 to 5.7 lb
Vine crops (Cucumbers, melons, pumpkins, squash)	Vines are 1 ft. long	0.75 to 1 lb	1.5 to 2 lb	2 to 2.8 lb	4.2 to 5.7 lb
Sweet corn	Plants are 12-18" tall	1 to 1.5 lb	2 to 3 lb	2.8 to 4 lb	5.7 to 8.5 lb
Okra, eggplant	3 to 4 weeks after seeding/ transplanting	0.5 to 1 lb	1 to 2 lb	1.4 to 2.8 lb	2.8 to 5.7 lb
	6 to 8 weeks after seeding/ transplanting	0.5 to 1 lb	1 to 2 lb	1.4 to 2.8 lb	2.8 to 5.7 lb
Broccoli, cabbage, cauliflower, Brussels sprouts	2 to 3 weeks after transplanting	1 lb	2 lb	2.8 lb	5.7 lb
	5 to 6 weeks after transplanting	0.5 lb	1 lb	1.4 lb	2.8 lb
Kale, collards, lettuce, spinach, mustard	3 to 4 weeks after seeding	0.5 to 0.75 lb	1 to 1.5 lb	1.4 to 2 lb	2.8 to 4.2 lb

Natural or organic fertilizers will be available more slowly than chemical (often 1-4 months).

This calendar is also a fillable PDF to enable digital record keeping:

tiny.utk.edu/W436

Crop	Cultivars grown	Date seeded transplants	Seeded or transplanted in the garden	First flower	First harvest	Insect issues	Disease issues	Last harvest

Garden and Orchard Climate and Management Overview

(Use this page as a summary of notes recorded in the separate month calendars)

Growing Season Events	**Spring - Last Frost Date** Any late frost events?	**Fall - First Frost Date** Length of growing season (days from last to first frost).	**Extreme weather events**	**Other notes**
General climate	**Spring temperature trends**	**Summer temperature trends**	**Fall temperature trends**	**Winter temperature trends**
Rainfall	**Spring rainfall total**	**Summer rainfall totals**	**Fall rainfall totals**	**Other notes**
Irrigation	**Spring irrigation summary**	**Summer irrigation summary**	**Fall irrigation summary**	**Other notes**
Soil management	**Spring tillage**	**Summer cover crops**	**Fall cover crops**	**Other notes**
Fertilization	**Pre-plant fertilization**	**Side-dressing**	**Fertigation (fertilizer dissolved in irrigation)**	**Other notes**

Pest and Disease Management Records

(Use this page to keep records throughout the gardening season)

Crop and issue	Date of action	Material and method used	Rate and volume used	Notes on efficacy

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