

## 2023 Tennessee Home Fruit and Vegetable Calendar

#### **Tennessee Extension Home Fruit and Vegetable Workgroup**

Natalie Bumgarner, Residential and Consumer Horticulture Extension Specialist

John Gunter, Extension Agent, Fentress County

David Lockwood, Fruit Production Extension Specialist

Darby Payne-Allday, Extension Agent, Giles County

Melody Rose, Extension Agent, Greene County

Lee Sammons, Extension Agent, Hardeman County

Virginia Sykes, Variety Trials and Agroecology Extension Specialist

Gregg Upchurch, Extension Agent, Cumberland County

Seth Whitehouse, Extension Agent, Anderson County

Bob Ary, Extension Agent Emeritus, Sumner County

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.



## Getting the Most from the 2023 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 <u>weather.gov/media/ohx/PDF/frostfreezeprobs.pdf</u>.

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

<sup>\*</sup>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

<u>Vegetable Gardens Archive - A series of publications on garden vegetables</u>



### **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. <u>tiny.utk.edu/FruitSupplierList</u>
- 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.
- Gather materials for producing transplants. These should include new or sanitized and pathogen free substrate. See <u>UT Extension Publication W 346-B Tennessee</u> <u>Vegetable Garden: Garden Planning, Plant Preparation and Planting.</u>
- Order seeds for your 2023 garden, especially those for transplants. Check out UT trial results to support your selection. See <u>UT Extension publication W 657 Home</u> <u>Garden Variety Trials</u>
- 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! <a href="https://mastergardener.tennessee.edu/how-do-i-become-a-master-gardener">https://mastergardener.tennessee.edu/how-do-i-become-a-master-gardener</a>

## **Get Started with Home Vegetable Gardens**

Vegetables are a great place to start with home food production. Tennessee has a moderate climate and a relatively long growing season, so many vegetables grow well here. Focus on sun, soil, season and selection.

Sunlight — Vegetables need full sun locations for good growth and yield. Fruiting crops require 6 to 8 hours per day and some leafy crops, like lettuce, may be able to grow with 4-6 hours per day.

Soil — Vegetables require good drainage, and plant roots will require at least 6-8 inches of soil. Taking soil samples and sending them in for soil testing will enable you to assess depth and get recommendations for nutrient additions.

Season — Cool-season crops are those that can withstand frost. In Tennessee, we can grow both spring and fall crops of lettuce, radishes, kale and collards. In fall, crops like broccoli, cabbage, kale, collards, lettuce, spinach and turnips are great options. Warm-season crops prefer warmer growing conditions and are killed by frost. Beans, sweet corn, okra, tomatoes, peppers, eggplant and squash are all examples of warm-season crops.

Selection: For several years, UT Extension researchers have collaborated with Tennessee home gardeners to complete trials to support cultivar selection for yield, quality and health. Some top performers are discussed in <a href="UT Extension">UT Extension</a> publication W 657 Home Garden Variety Trials.

Crop	Why We Love It
Contender bush bean	A productive bean with traditional look and flavor.
Turkey Craw pole bean	Local heirloom with good taste in a mottled brown bean.
Marketmore 76 cuc.	Open pollinated, slender green productive slicer cucumber
Patio Choice yellow tomato	Compact determinate tomato for containers or in-ground with large dark yellow, cherry-sized fruit.
Carmine Splendor okra	Productive hybrid plant with medium red tender fruit.
Green Tiger zucchini	Dark/light green striped fruit on a productive plant.
Chiffon zucchini	Butter yellow blocky zucchini (picture on left).
Walthum and Waldo	These open pollinated and hybrid larger sized butternuts both
butternut squash	performed well in yield and taste.
Sandy lettuce	Green oakleaf lettuce with good bolt tolerance.

#### Get all the information to join the 2023 trials at

mastergardener.tennessee.edu/home-garden-vegetable-trial

# JANUARY 2023

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



### **TASKS FOR FEBRUARY**

- Now is the time for dormant pruning on many fruit crops (see October); make sure to remove any diseased wood while pruning for production.
- Dormant sprays are also an important early season fruit practice. See <u>UT</u>
   <u>Extension Publication PB 1622 Disease and Insect Control in Home Fruit Plantings.</u>
- 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. <u>UT Extension publication W 657 Home Garden Variety</u> Trials.
- Gather scion wood for grafting fruit trees if still dormant (this varies by year and region).
- Order remainder of garden seeds for the 2023 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 <u>UT Extension</u> publication W 346-G Stewardship in Soil Management.

## **Getting Started Well with Home Fruit**

Selecting Crops That Fit Your Needs and Site: What Are Your Goals?

Home fruit can be very rewarding but also very challenging. Think of home fruit in terms of your goals and how much time, effort, and money you are willing to invest. Fruit can be grown for fresh eating, preservation or simply for interesting crops that support wildlife. The more you are interested in production, the more time and care the crop will need. Site selection, cultivar selection, site preparation and ongoing management will be essential for rewarding production from fruit trees and small fruit plantings. If this all sounds like a bit too much effort, then start much smaller with a few strawberry, blueberry or caneberry plants in raised beds.

#### Selecting Cultivars That Fit Your Needs and Site

- Select cultivars that are well suited to Tennessee climates. Consider chilling hours to make sure bloom time will not be too early or too late.
- Select cultivars that have resistance to common diseases in Tennessee. Our warm, humid climate means that resistance will be very important for many tree fruit diseases like cedar apple rust and fireblight.
- Select cultivars that produce fruit that you like and in a season of the year that
  fits your lifestyle. See <u>UT Extension Publication W 895-A Selecting Blueberries</u>
  for Residential Production in Tennessee and <u>UT Extension Publication W</u>
  895-B Selecting Caneberries for Residential Production in Tenenssee.

#### Finding the Cultivars That Fit Your Needs and Site

- There are many options for home fruit, and it is best to select cultivars that will
  fit in your location and then find a supplier that has those cultivars. Purchasing
  the first cultivar you see not a good place to begin.
- The UT Extension Home Fruit and Vegetable Workgroup has put together a list of possible suppliers according to cultivars suggested in our Extension publications.

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

Reality and Expectations for Home Fruit tiny.utk.edu/FruitSupplierList

# FEBRUARY 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			Investigate trials of vegetables before making purchases.	Prepare seed order for warm season direct seeded crops.	3	4
5 OFULL MOON	6 Use dormant oil sprays complete on your fruit trees to combat scale and other pests.	Prepare garden soil in West TN if not too wet. Early seeding can be easier in raised beds.	Six weeks until early date to plant kale in East TN and cabbage/broccoli in West TN. So, seed transplants now.	<b>9</b> Eight weeks from frost-free date in much of West TN. Seed warm-season transplants now.	Six weeks until early date to plant cabbage, broccoli, and cauliflower in East TN. Seed transplants now.	Could direct seed peas, mustard, kale and collards in West TN if soil can be prepared.
12	Monitor transplants closely to ensure that they are not over or underwatered.	Dormant sprays like likme sulfur can reduce disease on many fruit crops before bud break!	Eight weeks from frost-free date in much of Middle TN. Seed warm-season transplants now.	Pruning fruit trees can reduce disease pressure and increase potential production.	Make sure that young transplants are not stretching. This could indiciate low light or high N.	18
19	<b>20</b> • NEW MOON Could direct seed, peas, mustard, kale and collards in much of Middle TN.	Prepare garden soil in Middle and East TN if dry enough.	Make sure to store bareroot plants carefully if they arrive early.	Eight weeks from frost-free date in much of East TN. Seed warm-season transplants now.	Dormant prune blueberries and cut 10%-20% of canes each year to renew fruiting wood.	25
26	27	Por caneberries, remove canes that fruited the previous season, then thin the rest.				
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 <u>UT Extension publication W</u> 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 <u>UT</u> <u>Extension publication W 346-G Stewardship in Soil Management.</u>
- 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. 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 <u>UT Extension publication W</u> 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.

## **Get Started Growing Your Own Garden 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.
- Maintain 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.

#### **Tomatoes for Tennessee Garden**

Tomatoes varieties combine tastes and aromas to deliver diverse flavors. Combine that with size, shape and color, and the options are nearly endless!

- Determinate tomatoes will "top themselves" by forming a flower at the growing point. So, they are typically shorter and can be easier to manage than indeterminate cultivars in the garden. Fruit are set over a shorter period of time. Some determinate cultivars that have performed well are Celebrity, Iron Lady, Stellar and Defiant, with the latter three having some early blight resistance.
- Indeterminate varieties continue to grow and produce both new leaves and new flowers from their primary growing point. Unless damaged by insects, disease, or stress, indeterminate tomatoes will produce until killed by low temperatures in the fall. They will require taller stakes and more intensive management. There are many indeterminate favorites from recent Tennessee trials. Big Beef and Damsel are red and pink medium-sized round options with larger slicers including Beefmaster, Mountain Rouge, Chef's Choice Yellow, Garden Treasure and the paste tomatoes Tiren and Granadero. Heirloom favorites include Cherokee Purple and Brandywine. Find more tomato info in <u>UT Extension publication W 346-H Growing Tomatoes</u>.

# **MARCH 2023**

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



### **TASKS FOR APRIL**

- Finish site preparation if not completed. Use proper pre-plant fertilizer. See <u>UT</u> 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 <u>UT Extension</u> <u>publication W 346-B Garden Planning, Plant Preparation and Planting.</u>

### **Peppers for Tennessee Garden**

Tomatoes get most of the publicity, but in terms of space and time needs, it is hard to find a fruiting crop that has the diversity of the garden pepper. Peppers are transplanted after the threat of frost has passed and begin bearing 55-75 days later.

Peppers tend to have low insect pressure but should be planted in soil with good drainage and under crop rotation to lower disease risk. Also make sure soil temperatures have warmed enough when transplanting.

- For a traditional sweet bell pepper with bacterial leaf spot resistance, try Alliance, Red Knight, King Arthur or Revolution, an option with Phytophthora resistance as well. They are all red at full maturity. Try Orange Blaze or Mecate for vibrant orange or yellow fruit color at maturity.
- Sweet peppers are not just bells these days. Italian frying peppers, or Corno di Toros, are excellent sweet options. Carmen matures to red, while Escamillo and Cornito Giallo mature to vellow (see photo).
- Hot pepper diversity is truly impressive. For jalapeno, try Emerald Fire or Felicity (low heat) or the Fresno Flaming Flare or Serrano options Hot Rod. uthort.com/peppers-for-the-tennessee-vegetable-garden

## **Getting Started With Raised Beds**

If your site has compacted soil or other issues, 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 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 6-12 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 4-6 inches in depth. Taller and deeper-rooted crops, such as tomatoes, peppers, okra, and corn often 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 with more substrate can decrease watering frequency.

You can purchase raised bed mixes instead of using the native soil. These mixes should have a range of particle sizes to support drainage and be free from weed seeds and pathogens. Remember that raised beds will need watered and fertilized more frequently than in-ground gardens! See <u>UT Extension Publication</u> W346 E The Tennessee Vegetable Garden: Building And Using Raised Beds.



# APRIL 2023

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



#### **TASKS FOR MAY**

- Keep on the regular control sprays for fruit crops.
- Harvest cool-season crops and watch for pests/disease (see July).
- Seed succession plantings of beans and sweet corn. See <u>UT Extension</u> 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 <u>UT Extension Publication</u>
   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, but don't be afraid to send in samples to your local Extension office or the UT Soil, Plant and Pest Center. See <u>Soil, Plant and Pest Center</u> website.

### **Getting Started with Strawberries**

Strawberries can be a great first home fruit crop because they can be harvested in a year or less and can be grown in small spaces, raised beds and containers. Pick a site that is well-drained and hasn't been in vegetables. Purchase high quality bare root or plug plants.

- Strawberries can be grown in two main types of systems. Matted row is a system where runners are allowed to grow and produce daughter plants for future production in the same bed to enable longer term production. Older plants are periodically removed through renovation to support health and productivity. In warm, humid climates, plant health can be a limiting factor for matted row production over several years. Annual production is most common in commercial strawberry operations where they plant on raised beds in the fall and then harvest fruit and remove plants the next year.
- There are two main types of strawberries. Short-day/June-bearing strawberries produce a single large crop during a few weeks in the late spring often May or June in Tennessee. These flowers were set the previous year under late summer/fall short-day conditions. Some common cultivars are Earliglow, Allstar, Cardinal and Flavorfest. Everbearing/day-neutral strawberries produce fruit at multiple times throughout the growing season because flowers are initiated through the growing season. However, they often don't have the total yield of short-day types. These types of strawberries are grown in greenhouses (picture above is in a greenhouse hydroponic system) or tunnels to extend the harvest season. Examples include Tristar, Tribute, Albion and Seascape.

# MAY 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	<b>1</b> Direct seed cucumbers in west and Middle TN.	Some gardeners wait until soil warms to install natural mulches, such as straw.	Record your favorite cool season crops this year at the end of the calendar.	In many parts of TN, heat-loving plants such as peppers, eggplant could wait to be transplanted.	<b>5</b> FULL MOON Remember, it is about soil temps not just air temps.	Seedless watermelons and supersweet corn will germinate poorly if soil is too cool.
<b>7</b> Do your cool-season leafy crops need any fertilizer sidedressing?	<b>8</b> Be ready to harvest cool-season crops at the peak of their quality.	<b>9</b> This is the early date for seeding okra in East TN.	Succession planting could also be done for zucchini or cucumbers.	Have some common insecticides and fungicides on hand.	Be scouting on a regular basis to prevent getting caught off guard by pests/diseases.	Plan for fertilizing your blueberries. They prefer ammonium nitrogen sources.
<b>14</b> Direct seed cucurbits in East TN.	Remove weeds from strawberry canopy to improve airflow throughout season.	Install bird netting over blueberries and caneberries to prevent birds from stealing your berries!	Sweet potatoes are often one of the last crops to be planted.	Continue succession seeding of corn and beans.	19 • NEW MOON  Plan for weed control continuously through the season.	When you do see diseases or insects, make sure to record them at the end of the calendar.
21	Good irrigation in the first year is critical for establishment of new fruit crops.	Be prepared to spray insecticides on blueberries if spotted wing drosophilia damage occurs.	24	Be prepared to spray insecticides on blueberries if spotted wing drosophilia damage occurs.	26	27
28	29	Preventative sprays for vegetable diseases may need to begin in May.	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 publications W 316 Home Vegetable Garden
  Disease Control and 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 <u>UT Extension publication D 58</u>
   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 <u>UT Extension publication W 346-D Plant</u> <u>Management Practices</u>.

#### **Blackberries for Tennessee Gardens**

Blackberries are dependable plants with the potential to produce for many years. They can also bear fruit earlier than tree fruits and blueberries. Though they tend to be tolerant to different soil types and pH levels, they do need good drainage. Blackberries are found in thorned and thornless cultivars with erect or semi-erect growth habits. Thornless blackberries are easier to prune and maintain, but all grow best with trellising. Floricane types bear fruit on second-year canes. Try Natchez, Osage, Ponca, Caddo and Von for floricane bearing. Primocane types can bear fruit on first year canes as well as on the second year. However, the summer heat can reduce yield. Try Prime Ark 45, Prime Ark Horizon or Prime Ark Freedom for primocane bearing types and check out: <a href="UT Extension publication W 895-B Choosing Caneberries for Residential Production in Tennessee">UT Extension publication W 895-B Choosing Caneberries for Residential Production in Tennessee</a>.

### **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.

<b>Bacillus subtilis —</b> 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.
<b>Chlorothalonil</b> — 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.
<b>Neem oil</b> — 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.
<b>Sulfur</b> — 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 <u>UT Extension publication W 661 Conventional and Organic Product Overview for Home Vegetable Gardeners in Tennessee.</u>

For fruits see <u>UT Extension publication PB 1622 Disease and Insect Control in Fruit Planting</u>

# **JUNE 2023**

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				Remove covers over crops if temps get too hot or crops need pollination.	Support your growing tomato plants with stake and twine or cages.	<b>3</b> FULL MOON  Are the tomatoes crops flowering yet? Mark it down on the page at the end of the calendar.
4	5	6	7	8	9	10
Succession planting of beans should be nearly done in West TN.	Keep scouting for pests and disease. Check leaf undersides and interior leaves.	Fertilize and irrigate blueberries as needed to promote plant vigor.	Early beans may be close to harvest in many areas. Some can mature in only 50-55 days.	Still time to get some okra seeded.	Keep an eye out for cool season crops to harvest.	Strawberry harvest may be nearing the end of the season.
11	12	13	14	15	16	17
Keep track of when you apply fertilizer and how much you apply.	Keep an eye on plant health and be ready with fungicide.	Do the strawberries need renovation for future productivity? Also plan to fertilize.	Harvest summer squash when the skin is still glossy.	Watch for ripe blueberries! And, watch for insect pests. Spray only if observed.	Be ready for sidedressing many crops that are setting fruit.	Many warm-season crops, such as corn, many cucurbits can still be succession planted.
18 ● NEW MOON	19	20	21	22	23	24
Enjoy the longest gardening evenings of the year!	Keep your eye on the blackberries. Early cultivars may be close to ripe.	Soft tip blackberry primocanes when 8-12 inches over the trop trellis wire to encourage laterals.	Succession planting of beans should be nearly done in East TN. SUMMER SOLSTICE		Watch out for early blight on your tomatoes.	Make sure to keep track of anything you spray. A record sheet is found on the back.
25	26	27	28	29	30	
Keep an eye out for mature sweet corn. A 70-day cultivar seeded on 4/20 could be ready!	A summer cover crop of buckwheat can work well behind a spring cool-season crop.	Peppers can be transplanted through June, but watch watering closely.	Time your pumpkin planting to mature in early to mid-fall. August pumpkins are less exciting.	A 100 day pumpkin seeded on June 30 would be estimated to mature around October 10.	If there have been frequent rains or lots of moisture, more protective fungicides might be needed.	
Notes on crops:		ı		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.
- 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 <u>UT Extension publication W804-A Getting The Most Out Of Your</u> Home Vegetable Garden Soil Test.
- Manage weeds. See <u>UT Extension publication W 346-D Plant Management</u> 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.

### **Cucumbers for Tennessee Gardens**

From slicing to pickling to snacking, there is a cucumber for every garden and need. These warm-season members of the cucurbit family can be transplanted but are often direct seeded after danger of frost. Under good conditions, some can bear fruit around 40 days after seeding, while others require 50-60 days. Many newer cucumber varieties also have resistance to common leaf and soilborne diseases and viruses. Here are a few cultivars to consider:

Compact plants — Patio Snacker (photo on left), Saladmore, Fanfare Pickling — Cool Customer, Bush Pickle, County Fair Thin skinned and seedless\* — Green Light, Diva, Iznik Garden slicer — Marketmore 76, DMR 401, General Lee, Dasher II, Straight Eight, Olympian

**Long garden cucumbers** — Shintokiwa, Southern Delight, Tasty Green

\*Keep in mind that seedless cucumbers don't require pollination and often don't have male flowers. They can be pollinated and might not be seedless if grown with other varieties that have male flowers. See <u>UT Extension publication</u> <u>D 62 Vine Crops for the Tennessee Vegetable Garden.</u>

## **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 $\%$ 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 2023

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

Summer just wouldn't seem real to a gardener in Tennessee if there weren't fresh squash! From green to yellow and crookneck to zucchini, there are many excellent options for the Tennessee gardener. All summer squash are warm-season crops that can be transplanted or direct seeded after danger of frost.

Many bear in 40-50 days, and can be harvested for several weeks if they remain healthy. Many newer squash have good resistance or tolerance to viruses that are common in southern gardens. Here are a few cultivars to consider:

**Green zucchini** — Raven (dark green), Tigress (lighter green), Green Tiger (light and dark green striped)

**Yellow zucchini** — Chiffon, Goldmine, Easy Pick Gold, Golden Star

Yellow squash — Grandprize, Slikpik, Tempest (slightly striped), Zephyr (has green tip)

**Patty Pan** — Sunburst, Bennings Green Tint

**Novelty** — Eight Ball (round dark green)

See UT Extension publication D 62 Vine Crops for the Tennessee Vegetable Garden.

## **Understanding Training Systems for Home Fruit**

The terms pruning and training are often used together when talking about fruit, but they are actually distinct but linked practices. Pruning is making specific cuts on canes or branches to produce a desired plant form and crop load (see October for pruning basics). Training is the practice of positioning limbs or canes for optimum health and productivity. Some of the benefits of proper training include:

- Sunlight interception by leaves
- Good air movement to dry leaves and reduce disease risk
- Spray penetration for best benefit of fungicides or insecticides
- Easier picking due to better access to fruit

Training is a practice on all fruit crops, but some crops require support systems in conjunction with training. Grapes (top image) and caneberries (bottom image) are some of the most common fruits that require support systems called trellises. In grapes, there are several types of trellis systems that vary across different types of grapes and growing regions. In caneberries, specifically blackberries, trellis systems are needed even when growing erect type berries for best growth, health and picking efficiency. There are several



types that can work in the home growing area including T and V trellis types. There is even a new type called a rotating cross arm trellis that is being trialed at Middle Tennessee UT sites. Find more info for caneberries see UT Extension publication SP 284-G Pruning and Training Caneberries. For more info on grapes see UT Extension publication PB 1475 Grape Growing in Tennessee.

# AUGUST 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		<b>1</b> FULL MOON  Record any disease issues and how well disease is controlled by any applied sprays.	Keep on scouting and manage weeds and sanitation. It can help this year and next year!	How can you determine when to plant fall crops? Example: a zucchini that will mature in 50 days.	Knoxville first frost avg. is 10/22. 50 days plus 10 for fall slower growing 14 days to harvest is an 8/9 seeding.	Transplants for many fall crops in east TN are planted in early to mid-Aug.
6	If you are buying fall transplants, look for young, actively growing plants.	Make sure you have the seed for directed seeded cool-season crops.	Side dress matted row strawberries with nitrogen to promote good fruit bud development.	When should you plant fall crops? Ex: a broccoli transplant that will mature in 60 days.	Nashville first avg. frost is a slower fall growth. We can weeks after frost. 70 days 7/22 to grow a 6-week-old	plan to harvest a couple back from 11/11 is 9/2. Or
13	14 Get those best of show crops ready for the county fair!	Direct seeded fall cool-season crops will require attention and water for best germination.	16 • NEW MOON Continue irrigating perennial plants even if fruit production has stopped.	How can you determine when to plant fall crops? Example: a lettuce that will mature in 35 days.	_	
20	Plan your cover crops for fall and make sure you order enough seed.	22	23 Consider cover crops for between rows of your fruit orchard.	<b>24</b> Winter squash is ready to harvest when rind hardens. Does it scratch with your fingernail?	25	26
27	28 Continue irrigating through autumn to prevent drought stress.	29	30 O BLUE MOON (FULL)	31		
Notes on crops	::			Notes on weather:		



### TASKS FOR SEPTEMBER

- Keep picking warm-season crops. Canning, freezing, and drying are all
  options for preservation. See <u>UT Extension publication W 346-I Harvest,
  Handling and Storage of Produce</u>.
- 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 <u>UT Extension publication D 70</u>
  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 <u>UT Extension publication D 68 Leafy Crops for the Tennessee Vegetable Garden</u>.
- Many fall cover crops are best seeded in September to get good stands and winter cover — even spring bloom for some!

## **Getting Started with 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 (on left), 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, rape 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 <u>UT Extension publication W 346-G Stewardship in Soil Management.</u>

### **Lettuce for Tennessee Gardens**

Have you tried planting iceberg head lettuce like you see in the store only to be disappointed by the results? Well, there are many other lettuce types that grow well and taste great from a Tennessee garden. Fall can be a great time to grow lettuce in Tennessee from seed or transplant.

- Many leaf lettuce cultivars are well suited to the home garden. Try Starfighter,
   Tropicana, Green Star or New Red Fire, and don't be afraid to pick these cultivars,
   and many others, immature.
- Bibb or butterhead lettuce provides a softer leaf texture and can be grown in green or red. Try Mirlo, Nancy, or Red Cross or Skyphos for red leaves.
- Oakleaf can provide great texture and color interest. Try Oscarde or Panisse.
- Romaine can be a great fall lettuce (or early spring) crop. Try Salvius, Green Forest, Coastal Star or great fall options like Winter Density.

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

# SEPTEMBER 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					Most cabbage, broccoli, cauliflower should be trans-planted by mid-Sept. in West TN.	Keep track of how much and how often watering is needed. Without rain 1-2 in/week is an estimate.
3	It's Labor Day! Keep on picking those warm-season crops.	Early fall is often the driest time of the year in TN. Be prepared to meet crop water needs.	Begin selecting fruit cultivars to plant in the fall, dormant in the winter, or in early spring.	Keep an eye out for pests/disease on your cool-season crops. Row covers can reduce insects.	Most cabbage broccoli, cauliflower should be transplanted by mid-September in West TN.	9
10	Brassicas, lettuce and many fall crops are fast growing and may need a fertilizer sidedressing.	Make sure that there is sufficient water for fall cool-season crops.	Have you seen any of the pesky armyworms? If so, record it!	14 • NEW MOON  Want a few leafy crops for fall without managing a whole garden? Build a small raised bed.	15	Containers can also be a great way to produce a bit of fresh produce for late fall.
17	Many cover crops may produce best in East TN with a September seeding.	Vetch and other legumes benefit from early fall seeding while rye can be sown later.	September through November are the times to plant garlic across TN.	In fact, here in TN, we can grow broth hardneck and softneck garlic. See November for info.	Remove warm-season crops as they finish producing to lighten the load of fall cleanup.	If the plants are healthy, it could be a great time to being a compost pile.  AUTUMNAL EQUINOX
24	It's getting close to the end of seeding for fall leafy crops in Middle and East TN.	A row cover or low tunnel can add a couple of weeks to the fall season.	<b>27</b> Watch for high temps under cover on very warm September days.	28 To assure good growth and fruit set in spring, maintain healthy foliage on fruits crops to frost.	<b>29</b> FULL MOON Soil tests should be taken 6 months before planting caneberries.	Keep good notes on the cultivars that did well or not as well in your garden this year.
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 <u>UT Extension publication</u> W 346-G Stewardship in Soil Management.
- Take soil tests and make adjustments to pH as recommended.

## **Apples for the Tennessee Garden**

Apples are the most familiar and commonly grown tree fruit, but they are also a long-term and time-consuming investment. Even for a casual backyard tree or two, proper pruning, cultural practices, and pest and disease management are crucial to harvest high quality fruit.

**Selecting the Best Site:** Apples require deep, well-drained soils and full sun sites for good production and health. Planting sites should also be carefully tailored to the mature size of the tree. Standard trees can be up to 30 feet tall while the use of dwarfing rootstocks can reduce this spacing considerably but may require more support due to less vigorous root systems.

Selecting the best cultivars: Many diseases can damage and reduce fruit harvests or even kill apple trees. So, selecting cultivars with resistance to the most common diseases is important. Resistance is often used in conjunction with carefully managed spray programs to prevent or reduce the impact of pests and diseases. Disease and pest tolerant cultivars are a key asset, but don't assume that resistance will enable fruit trees to perform well with little to no management. Cultural management, including cultivar selection, site selection, pruning, training, pest and disease control, and sanitation are crucial. William's Pride, Liberty, Freedom, GoldRush, Enterprise and Arkansas Black are all cultivars with some resistance to key diseases such as scab, fireblight, powdery mildew and cedar apple rust.

## **Understanding the Basics of Pruning**

There are two main types of pruning in home fruit trees and small fruit.

- Dormant pruning is the most common and is done when active growth is not occurring. This means that much of the energy reserves in the plant are stored in the more permanent and mature parts of the tree (trunk and roots), so critical reserves are not lost. When active growth starts in the spring, these reserves will support active new growth. Heavy dormant pruning can lead to rapid, vigorous growth, so it should be used in moderation to direct the shape of the tree or plant and remove any damaged or diseased tissue. Dormant pruning can be used to assess plant heath and ensure healthy tissue for spring growth. Often pruning cuts are made back to healthy tissue.
- Summer pruning is carried out when the plant is actively growing. So, energy resources and reserves are removed and less vigorous growth is encouraged. Summer pruning is usually reserved for vigorous, upright, new growth on trees or bushes or training cuts, such as tipping of first year canes (primocanes) on caneberries. Pruning should be avoided in the late summer/fall because new growth can increase the potential for winter injury. The exception in the summer/fall would be pruning to remove dead second year canes (floricanes) from caneberries to lower disease risk.

# OCTOBER 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	<b>2</b> Getting close to the end of the time to direct seed fall crops in West TN.	Remember, plants can survive low temp but may not grow and produce much yield in some areas.	Make sure to clean up warm-season crops to prevent disease spread.	<b>5</b> Be on the lookout for fruit from late seeded warm-season crops.	Also be on the lookout for first frosts in parts of East TN.	7
8	9 Many cover crops can still produce well in East TN if planted in mid-October.	You don't have to seed the whole garden in cover at once. Cool season sections can be last.	October is a great time to t sub-samples about 6 inche	<b>12</b> ake soil samples. Take 10-15 s deep.	Make sure that late season crops have adequate (but not excessive) water and nutrients.	14 • NEW MOON  What were your favorite peppers and tomatoes this year? Make sure to write the varieties down.
15	Sometimes the taste of brassica crops is better after being exposed to a bit of frost.	Have you had a frost yet? Write it down in the record sheet in the back of the calendar.	18	Bring your tools in from the garden. Clean them well.	Extend the life of your tools with proper sharpening and oiling.	21
22	We are getting close to firs tfrosts in many areas of West TN.	<b>24</b> Fall is a great time to address voles or other issues in fruit plantings.	Review soil reports and make additions if needed to adjust pH for next year.	<b>26</b> Remove and dispose of floricanes that already fruited on caneberries.	If apple scab, peach scab, or pear leaf spot occurred, rake and destory leaves to prevent disease overwintereing.	28 O FULL MOON
<b>29</b> Enjoy a home-grown jack-o-lantern for halloween!	30	31	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 <u>UT Extension publication W 346-H Growing Tomatoes</u>.
- 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. <a href="https://www2.ca.uky.edu/agcomm/pubs/ho/ho75/ho75.pdf">www2.ca.uky.edu/agcomm/pubs/ho/ho75/ho75.pdf</a>
- 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 <u>UT Extension publication W 235-G Cover Crops and Green</u> <u>Manures</u>.
- 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.

### **Melons for Tennessee Gardens**

There is nothing that beats a sweet juicy garden muskmelon on a summer night. These are warm-season vine crops that generally mature in 70 to 90 days and require room to vine or a vertical support system. Muskmelons prefer around 6.5 pH and good drainage. Seeding dates are in late April into early to mid-May and they can be direct seeded or transplanted after the danger of frost has passed. Follow pre-plant nutrient recommendations and sidedress. Plastic mulch and irrigation can be an asset but don't water too much as the fruit ripens. Athena, Ambrosia (upper fruit), and Sugar Cube (lower fruit) are some Tennessee trial favorites. Check out <a href="UT Extension publication D 62 Vine Crops for the Tennessee Vegetable Garden">UT Extension publication D 62 Vine Crops for the Tennessee Vegetable Garden</a>.

## **Getting Started with Soil Testing and Fertilzation**

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 <u>UT Extension publication W 804-A</u> 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 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			Did you get your garlic planted? It isn't too late!	<b>2</b> Keep harvesting your various cool-season crops.	Clean up any stakes or debris from the garden.	4
<b>5</b> Daylight Saving Time Ends	Even if it is a mid-November seeding, a cover crop like rye can still be an benefit.	7	8 It may even be close to a first frost in Memphis by now!	9	Keep notes on the crops and cultivars that performed well for you this year.	Write those notes in the record sheets in the back of this calendar.
12	13 ● NEW MOON	14 What were some of your pest issues this year?	15 What were some of the disease issues you faced?	Knowing your gardening challenges is great info to help select crops for next year.	There are many resistant varieties that can help you address disease issues.	18
19	Prune and destroy all dead or diseased fruit tree limbs when dormant.	21	22	23	Carrots can be stored in ground for a little while, but be sure to pull before the ground freezes.	25
26	27 OFULL MOON	28	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

#### **Blueberries for Tennessee Gardens**

Blueberries are often regarded as a lower maintenance crop for the home, but selection of site, soil and cultivars are crucial for success.

**Soil**: Blueberries grow best in soils with pH levels between 4.5 and 5.5 with good drainage. Coarse to medium textured soils more often provide this desired drainage than fine textured, clayey soils. Blueberries also prefer organic matter that is 3 percent or higher and often benefit from irrigation.

Type: The two types of blueberries commonly grown in Tennessee are highbush and rabbiteye. Rabbiteye blueberries are native to southern regions. They usually are more heat and drought tolerant than northern highbush while having a longer lifespan. They also have more vigorous growth habit and produce taller mature plants. Tifblue, Premier and Powderblue have been grown successfully for many years, with Titan and Ochlocknee being newer cultivars under evaluation. Highbush blueberries are native to moist or bog-like sites with high organic matter in the northeast. In Mid-South Tennessee locations, they often perform best at higher elevations 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 were used to breed southern highbush for growing in climates not suitable for northern highbush. Legacy is a southern highbush grown successfully in Tennessee with Ozarkblue, New Hanover under trial now. See UT Extension publication W 895-A Selecting Blueberries for Residential Production in Tennessee.

# DECEMBER 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
3	It is almost seed catalog time. Don't be afraid to get some early orders in.	Mulch strawberries when temperatures are expected to drop below 20 degrees F but only if they are dormant!	6 Clean and store your tools for next year.	7 It could be a great time to select and order barefoot fruit for next year.	8	9
10	Start to think about the garden plan for next year.	12 ● NEW MOON	It is a great time to service tillers and other equipment. Sharpen blades and change oil.	Map out crop rotations for next year in light of diseases or pests encountered.	Mulch blueberry bushes to a depth of 5-6 inches when dormant.	16
17	18	19 Gardening hours start increasing from here.	20	21	22	23
24	25	26 O FULL MOON	27	WINTER SOLSTICE  28  Sort and count remaining seeds to prevent over-ordering for next year.	You could even test germination (take percent of 10-25 seeds) to confirm viability.	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	2 to 3 weeks after transplanting	1 lb	2 lb	2.8 lb	5.7 lb			
sprouts	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			

<sup>\*</sup>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



UTIA.TENNESSEE.EDU

Real. Life. Solutions.™