For many of us, gardening is literally in our roots; it is part of our heritage. My family is Italian, so growing fresh produce, especially vegetables, was very much a part of our culture. I remember helping my grandparents and parents with their gardens. Each summer I would help plant, weed, water and pick the crops. It was there that I first learned the value of hard work. Gardening taught me the importance of growing your own food and instilled in me a deep appreciation for the dedication it takes to garden. It allowed me to spend precious time with my family – something for which I am very grateful.

We are seeing more and more young people interested in gardening and who want to enjoy the same satisfaction of growing your own food. That’s why we’ve chosen the theme, “Back to Garden Basics,” for the calendar. You’ll find great information on getting your garden started – from choosing the right site and building the soil, to planning long term for your future harvests through seed saving. You’ll learn how to build gardens to lure in our pollinators, as well as some great recipes you can cook using your harvested crops. We also have provided a list of WVU resources available to you as you begin your garden journey.

We hope you enjoy this calendar and share your love of gardening with family and friends. Visit extension.wvu.edu to help you get back to the gardening basics, as well as find tips, information and bonus articles to make your garden flourish.

With warm regards,

Steven Bonanno, Dean and Director
WVU Extension Service
## JANUARY

### Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday
---|---|---|---|---|---|---
 | | 1 | 2 | 3 | 4 | New Moon | 5
 | | | | | | Harvest overwintered kale |
 | 6 | 7 | 8 | 9 | 10 | 11 | 12
 | | | | | | | Test germination of stored seeds |
 | 13 | 14 | 15 | 16 | 17 | 18 | 19
 | | First Quarter | | | | | | Organize a community garden |
 | 20 | 21 | 22 | 23 | 24 | 25 | 26
 | | Full Moon | | | | | | |
 | | Martin Luther King Jr. Day | | | | | | |
 | 27 | 28 | 29 | 30 | 31 | | |

**New Year's Day**
Increase humidity for houseplants

**Plan garden layout**
Browse seed catalogs

**Cut poinsettias to 6 inches and place in sunny windows**

**Order herb seeds**
Harvest overwintered Brussels sprouts

**Order seed varieties**
Consult WVU Extension’s recommendations

**Seed tomatoes for early high tunnel planting**

**Service power equipment**

**Clean garden tools**

**Use grow lights for vegetable seedlings**

**Gently remove snow or ice from evergreens and shrubs**

**Order grow lights for transplant production**

**Order fertilizer and lime according to soil test results**

**Plan spring landscape design**

**Order harvest supplies**

**Create a garden map**

**Test germination of stored seeds**

**Create a garden map**

**Order grow lights for transplant production**

**Order fertilizer and lime according to soil test results**

**Plan spring landscape design**

**Order harvest supplies**

**Test germination of stored seeds**

**Create a garden map**

**Order grow lights for transplant production**

**Order fertilizer and lime according to soil test results**

**Plan spring landscape design**

**Order harvest supplies**
Choosing a Garden Site

By Karen Cox, WVU Extension Agent – Ohio County

Selecting the right garden site can mean the difference between a rewarding experience with healthy, productive plants or one that brings trouble with stressed, diseased plants and insect problems.

Start by sketching the property. Note locations of buildings, hose bibs, septic fields, sidewalks, trees and any other significant items. Consider how each of these things could impact your garden site. For example, tree roots live in the top 6 to 10 inches of soil and tilling through them to install a garden may kill your tree.

On your sketch, mark shaded areas throughout the day. Most plants grown for fruit or flower require six or more hours of sunlight; any unshaded areas will provide the minimum sunlight needed. Once you have a general location in mind, it’s time to call 811 – a free service that will come to your home and tell you where any buried utilities may be hiding.

Next, check out the soil. Visit the WVU Soil Testing Laboratory webpage to learn how to take a good soil sample. Using a soil map, your local WVU Extension Service agent can help you determine the soil type and its characteristics. If the site is in an urban area or the land’s history is unknown, do an additional test for heavy metals for safety.

Drainage is the most important aspect of any garden. Other issues can be remedied, but waterlogged soils will suffocate roots and produce sickly plants. Soil that is greyish or has a rotting smell indicates a drainage problem. If the issue cannot be fixed, use raised beds to allow the roots to breathe.

By taking the time to select the right site, your garden will be healthier and more enjoyable.
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### Sunday
- **New Moon**
- Start a kitchen herb garden

### Monday
- Apply lime and fertilizer
- Order fruit trees

### Tuesday
- Order a high tunnel
- Seed head lettuce (indoors)

### Wednesday
- Seed celery (indoors)
- Seed leafy salad greens in high tunnel

### Thursday
- Valentine’s Day
- Order herb seeds
- Prune grapes

### Friday
- Build a low tunnel or cold frame
- Seed leeks (indoors)
- Seed cauliflower (indoors)

### Saturday
- Seed collards (indoors)
- Order seed potatoes

### Sunday
- Presidents Day
- Seed peas (outdoors) south of U.S. Rt. 60

### Monday
- Prune blueberries, raspberries, blackberries and fruit trees

### Tuesday
- Seed cabbage (indoors)
- Plant Irish potatoes in high tunnel

### Wednesday
- Seed onions and greens in cold frame or low tunnel

### Thursday
- Apply lime sulfur to blueberries
- Prune blueberries

### Friday
- Apply dormant oil spray to fruit trees
- Prune deciduous trees and shrubs

### Saturday
- Mow asparagus ferns
- Presprout seed potatoes
- Build a raised bed garden
Building Soil

By Emily Wells Morrow, WVU Extension Agent – Jefferson County

When planning your garden, the best place to start is underfoot. A healthy soil is alive with the right kinds of organisms and rich in nutrients, making it key to a successful garden.

If you’re lucky, your property already has a fertile soil. However, you’ll more than likely need to put forth a little work to get a strong, healthy soil.

Raised beds are a popular choice among gardeners for this very reason. While there is more preparation up front, raised beds offer gardeners the option to immediately start with a nutrient-dense soil.

No matter how you garden, a good compost is essential to building and maintaining a healthy soil. Start by selecting a good location for the pile – one that’s convenient, yet not in your way. Keep in mind, a compost pile should stay wet but not saturated, so try to stay close to a water source.

Compost piles should be a minimum of 3 feet in height, width and length, but can be built as a stand-alone mound or within a homemade bin. Grass clippings, leaves, small twigs, livestock manure, straw, newspaper, coffee grounds and fruit and vegetable scraps are all safe to compost. Diseased plants, pet waste, meat, bones, grease and dairy products should not be composted.

Compost piles work by keeping the soil microorganisms supplied with oxygen, water and plenty of material to feed on. As the pile heats up, decomposition takes place. Regularly turn your compost for a fresh soil amendment in no time.

An unturned, unattended pile will still turn into compost but not as quickly. A finished compost, dubbed “black gold” by gardeners and farmers, improves soil’s nutrients, structure and water-holding ability, making it a sustainable addition to any garden.
## MARCH

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<td>Order specialty seed potatoes</td>
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<tr>
<td>Seed microgreens</td>
<td>Plant broadleaf evergreens</td>
<td>New Moon</td>
<td>Ash Wednesday Plant onion sets</td>
<td>Take cuttings from herbs</td>
<td>Seed chives Build a high tunnel</td>
<td>Seed leaf lettuce and spinach (indoors)</td>
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<tr>
<td>Daylight Saving Time Begins</td>
<td>Seed tomatoes (indoors)</td>
<td>Seed peppers (indoors)</td>
<td>Seed Swiss chard (indoors)</td>
<td>First Quarter Seed peas (outdoors) Plant nonflowering trees and shrubs</td>
<td>Seed radishes, spinach and leeks (outdoors)</td>
<td>Seed parsnips Plant roses</td>
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<td>St. Patrick's Day</td>
<td>Seed salsify Set head lettuce</td>
<td>Fertilize spring-flowering bulbs</td>
<td>Full Moon</td>
<td>Spring Begins Seed eggplant (indoors)</td>
<td>Plant asparagus (outdoors)</td>
<td>Transplant strawberry plants</td>
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<td>Seed radishes (outdoors) Plant rhubarb</td>
<td>Plant potatoes Fertilize asparagus and rhubarb beds</td>
<td>Begin dogwood anthracnose control Use row covers for freeze protection</td>
<td>Last Quarter Seed lavender (indoors)</td>
<td>Seed cutting celery (indoors)</td>
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</table>

### BACK TO GARDEN BASICS

- Seed globe artichokes (indoors)
- Order rhubarb crowns
- Order specialty seed potatoes

- Ash Wednesday
- Plant onion sets
- Take cuttings from herbs
- Seed chives
- Build a high tunnel

- Seed leaf lettuce and spinach (indoors)
- Seed tomatoes (indoors)
- Seed Swiss chard (indoors)
- Seed peas (outdoors)
- Plant nonflowering trees and shrubs
- Seed radishes, spinach and leeks (outdoors)
- Seed salsify
- Set head lettuce
- Fertilize spring-flowering bulbs
- Spring Begins
- Seed eggplant (indoors)
- Plant asparagus (outdoors)
- Transplant strawberry plants
- Divide overcrowded rhubarb
- Seed radishes (outdoors)
- Plant rhubarb
- Plant potatoes
- Fertilize asparagus and rhubarb beds
- Begin dogwood anthracnose control
- Use row covers for freeze protection
- Seed lavender (indoors)
- Seed cutting celery (indoors)
Companion Planting

By Natasha Harris, WVU Extension Agent – Upshur County

Companion planting is the practice of growing several different types of crops within close proximity of each other to enhance crop production. Interplanting, the practice of planting different crops between one another, is especially ideal for small gardens to maximize space and improve productivity.

Planting fruits and vegetables with flowers, herbs or other vegetables can provide many valuable natural resources to your garden. However, when planning out your garden, consideration needs to be taken to ensure you’re growing supporting plants next to one another rather than competing plants. For instance, onions and beans should not be interplanted; onions repel pests for many other crops but will stunt the growth of beans.

Companion planting can help your garden thrive and be beneficial to plant mates. It can help deter harmful pests, provide support for crops, improve soil quality, offer shade to smaller plants, provide weed suppression and attract beneficial insects to your garden.

One of the most popular companion plantings is the “three sisters garden” of corn, beans and squash. Marigolds can be planted throughout or around the garden to repel insects and nematodes.

Interplant smaller cool-season plants, such as spinach, beets or lettuce, between larger, slow-growing vegetables, such as tomatoes or peppers. Tomato plants can benefit from having herbs, such as parsley and basil, planted nearby. Companion planting is not an exact science, and successful companion plantings can differ by area. Companion planting charts offer a starting point, but you can also contact your local WVU Extension Service office for additional suggestions.
### April

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<tr>
<td>1</td>
<td>April Fool's Day</td>
<td>Seed Ethiopian kale</td>
<td>Seed basil for transplant (indoors)</td>
<td>Plant potatoes and raspberries</td>
<td>Seed or plant broccoli, cabbage and cauliflower (indoors)</td>
<td>Plant blackberries</td>
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<td>Seed Swiss chard, carrots and parsnips (outdoors)</td>
<td>Seed onions, beets and radishes (outdoors)</td>
<td>Plant cabbage</td>
<td>Seed beets and kale (outdoors)</td>
<td>Seed parsnips (indoors)</td>
<td>Seed or plant collards</td>
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<td>7</td>
<td>Seed dill (indoors)</td>
<td>Plant peas and seed radishes (outdoors)</td>
<td>Seed leaf lettuce (outdoors)</td>
<td>Order sweet potato slips or bed sweet potatoes for transplanting</td>
<td>First Quarter West Virginia Arbor Day Fertilize lawn Seed or plant collards</td>
<td>Seed watermelons (indoors) Start compost pile Plant perennials</td>
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<td>8</td>
<td>Plant fruit and hazelnut trees</td>
<td>Apply crabgrass control</td>
<td>Seed leaf lettuce (indoors)</td>
<td>Seed leaf lettuce (indoors)</td>
<td>Seed or plant collards</td>
<td>Seed watermelons (indoors) Start compost pile Plant perennials</td>
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<td>Seed shallots</td>
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<td>Seed endive</td>
<td>Loosen mulch on strawberries Remove row cover from strawberries</td>
<td>Refresh mulch in landscape beds Plant peas (outdoors)</td>
<td>Transplant leeks Seed new lawn Seed chives (outdoors)</td>
<td>Full Moon Seed annual herbs Seed carrots Seed Swiss chard</td>
<td>Passover Seed Asian greens Seed sweet corn</td>
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<td>Seed late tomatoes (indoors)</td>
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<td>16</td>
<td>Loosen mulch on strawberries Remove row cover from strawberries</td>
<td>Refresh mulch in landscape beds Plant peas (outdoors)</td>
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<td>Earth Day</td>
<td>Apply pre-emergent landscape weed control</td>
<td>Begin spraying fruit trees after petals fall</td>
<td>Buy herb cuttings/plugs</td>
<td>Last Quarter National Arbor Day Seed flat-leaf parsley</td>
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<td>Plant summer-flowering bulbs</td>
<td>Apply pre-emergent landscape weed control</td>
<td>Begin spraying fruit trees after petals fall</td>
<td>Buy herb cuttings/plugs</td>
<td>Last Quarter National Arbor Day Seed flat-leaf parsley</td>
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**BACK TO GARDEN BASICS**
Square Foot Gardening

By Mary Beth Bennett, WVU Extension Agent – Berkeley County

Would you like to grow produce but don’t have the time or space for a large garden? You might want to consider square foot gardening.

Using this system, you can grow enough vegetables for one person in a garden that is 4 feet by 4 feet. This technique uses a frame made from materials such as two-by-six untreated boards or bricks. Expand the garden to 8 feet by 4 feet for two people, 12 feet by 4 feet for three people, etc. The narrow width allows you to easily reach halfway across the bed from either side.

Place layers of newspaper, corrugated cardboard or weed-block fabric underneath the frame to prevent weeds. Fill the box with planting soil, consisting of one-third peat moss, one-third compost and one-third vermiculite. This creates a well-drained soil that still holds plenty of moisture for growth.

Adding a grid is key because without it, it would not be square foot gardening. Make a grid from items such as string, wood or plastic strips, or old venetian blinds, dividing the box into 1-foot by 1-foot squares.

Before planting, read the seed packet to determine each plant’s spacing needs. If a plant requires 12 inches of space, put one seed in each square. If the plant needs 6-inch spacing, plant four seeds in each square. For 4-inch space requirements, plant nine seeds. Small crops need 3-inch spacing, so you can plant 16 seeds. In two squares, put one very large vegetable plant.

Plant each seed by making a shallow hole with your finger. Cover the seeds lightly without packing the soil. Place trellises on the north side of the frame to grow vining plants. Once a square foot crop is finished, plant a new crop.
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<td></td>
<td>Transplant onions</td>
<td>Seeded fennel, Chinese cabbage, snap beans (outdoors)</td>
<td>Transplant onions</td>
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<td>Seed head lettuce (outdoors)</td>
<td>Seed leaf lettuce and winter squash (outdoors)</td>
<td>Seed summer squash and cucumbers (outdoors)</td>
<td>Seed late celery (outdoors)</td>
<td>Seeded cilantro (outdoors)</td>
<td>Seeded thyme, plant bok choy</td>
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<td>Control broadleaf weeds in lawn</td>
<td>Grow mint in containers</td>
<td>Seed annual flowers</td>
<td>Plant tomatillos</td>
<td>Plant sweet potatoes</td>
<td>Plant peppers and cabbage</td>
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<td>Mother's Day</td>
<td>Transplant or seed melons</td>
<td>Fertilize houseplants</td>
<td>Plant large pumpkins</td>
<td>Plant okra</td>
<td>Harvest established asparagus</td>
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<td>Avoid planting tomatoes or peppers with blooms</td>
<td>Seed sweet corn</td>
<td>Remove strawberry blossoms on newly transplanted plants</td>
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<td>Seed or transplant basil</td>
<td>Install row covers to exclude insects on cabbage and broccoli</td>
<td>Prune azaleas, viburnum, lilac and forsythia after blooming</td>
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<td>Seed Malabar spinach</td>
<td>Prune tomatoes, stake and mulch</td>
<td>Prune tomatoes and eggplant</td>
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<td>Trellis cucumbers</td>
<td>Seeded asparagus, beans</td>
<td>Seeded borage</td>
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<td>Memorial Day</td>
<td>Turn compost</td>
<td>Prune tomatoes at first flowering</td>
<td>Stake and mulch tomatoes</td>
<td>Plant asparagus beans</td>
<td>Plant sweet corn</td>
<td>Seeded borage</td>
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<td>Seeded or transplant fennel</td>
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**BACK TO GARDEN BASICS**

extension.wvu.edu
Container Gardening

By Stacey Huffman, WVU Extension Agent – Mineral County

Have you ever tried traditional gardening, only to have your garden fail year after year? Or maybe you don’t have the best space or enough time for a full-size garden? Container gardening could be just the solution you’re looking for, boasting benefits such as movability, less labor and easier weed and insect control.

If you think container or patio gardening is for you, there are a few key things to consider as you plan.

Use good potting soil, and make sure every container has good drainage. Containers need to be watered more often, as they dry out, so use pots with the water reservoirs on the bottom. Adding peat moss or vermiculite can help with watering needs, but you will still need to plan on watering once a day.

Selecting the right size container is key for a successful patio garden. Plants, like tomatoes and peppers, need bigger pots, as well as a cage or stake to encourage growth. If you only want to work with small containers, then lettuce, spinach or herbs are your go-to. If you choose to grow something like cucumbers, place the container near something that can be used as a trellis. If sunlight is an issue, requiring you to move the container for optimal sunlight, remember not to make the pots too heavy – or at least use a wheelbarrow!

You can use traditional pots or upcycle existing items into beautiful container gardens. Old wash tubs, tires and kiddie swimming pools are creative ways to use existing items to grow fresh produce.
### JUNE

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<td>New Moon</td>
<td>Seed snap beans and carrots</td>
<td>Seed parsley</td>
<td>Seed pumpkins and winter squash</td>
<td>Plant celery</td>
<td>Mulch garden to control weeds and conserve moisture</td>
<td>Plant tomatoes</td>
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<td>Seed summer squash and corn for late crop</td>
<td>Seed cabbage, cauliflower and broccoli for fall crop</td>
<td>Seed leaf and Bibb lettuce</td>
<td>Monitor for garden pests</td>
<td>Build a high tunnel</td>
<td>Seed bush limas</td>
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<td>Harvest beet greens</td>
<td>Begin control measures for squash vine borer</td>
<td>Begin bagworm control</td>
<td>Side-dress sweet corn that is knee-high with additional nitrogen</td>
<td>Flag Day</td>
<td>Summer prune apples and peaches</td>
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<td>First Quarter</td>
<td>Begin control measures for squash vine borer</td>
<td>Seed sweet corn and beets</td>
<td>Begin bagworm control</td>
<td>Side-dress sweet corn that is knee-high with additional nitrogen</td>
<td>Flag Day</td>
<td>Transplant thyme</td>
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<td>Seed pumpkins and winter squash</td>
<td>Renovate (e.g., leaf removal, fertilize, etc.) strawberries after last harvest</td>
<td>Pinch back garden mums</td>
<td>Transplant rosemary</td>
<td>Deadhead annuals to encourage more flowers</td>
<td>Pinch blackberry canes</td>
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<td>Harvest summer squash</td>
<td>Add non-seed-bearing weeds to compost</td>
<td>Seed dill</td>
<td>Prune pine trees</td>
<td>Treat lawn for white grubs using systemic insecticide</td>
<td>Plant peppers</td>
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<td>Full Moon</td>
<td>Prune spring-flowering shrubs</td>
<td>Renovate (e.g., leaf removal, fertilize, etc.) strawberries after last harvest</td>
<td>Pinch back garden mums</td>
<td>West Virginia Day</td>
<td>Summer Begins</td>
<td>End asparagus harvest</td>
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<td>Father’s Day</td>
<td>Control cabbage worms with DiPel® or row cover</td>
<td>Harvest summer squash</td>
<td>Seed pole limas and snap beans</td>
<td>Treat lawn for white grubs using systemic insecticide</td>
<td>Seed pole limas</td>
<td>Seed or transplant savory</td>
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<td>Last Quarter</td>
<td>Harvest beet greens</td>
<td>Seed peppers</td>
<td>Stake peppers</td>
<td>Harvest summer squash</td>
<td>Fertilize asparagus shorter than 6 inches in length</td>
<td>Harvest summer squash</td>
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<td>Turn compost</td>
<td>Plant basil</td>
<td>Transplant rosemary</td>
<td>Seed basil</td>
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<td>Plant late tomatoes and peppers</td>
<td>Plant basil</td>
<td>Plant cilantro</td>
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**BACK TO GARDEN BASICS**

extension.wvu.edu
Simple Trellising

By Lewis Jett, WVU Extension Specialist – Commercial Horticulture

An ideal way to conserve space in the garden is to train vegetables, flowers and fruits to grow upright using a simple, low-cost trellis. Trellising allows for higher quality crops, less disease and insect damage, easier harvesting and more yield.

Trellis tomatoes with woven wire cages or fence, livestock panels or stakes. When trellising tomatoes, the trellis should be at least 48 inches high. Since tomatoes do not produce tendrils to attach the plant to the trellis, use twist ties, cable ties or string to secure the plant. Plants should be staked two weeks after transplanting.

Peppers and eggplants are brittle, so trellising with wire cages or twine and stakes prevents the plant from breaking. Place one stake for every three plants and loop string around the posts to support the plants, adding multiple layers of string as the plant grows.

Pole and half-runner beans can be trellised by novel techniques, such as using other tall vegetable plants as a scaffold. A “teepee trellis” can be made from wooden posts and then planting the beans in a circle around the post. Most bean trellises are 6 to 9 feet high.

Cucumbers and vine crops benefit immensely from trellising. Cucumbers are trellised by using wire fencing and netting. Gourds can be trellised into an arbor, adding to your landscape design for the garden.

Small fruits are trellised to keep the canes upright and prevent tip layering from brambles. A simple trellis made from metal T-posts and baling twine with the stakes every 15 feet will be effective for brambles.

Trellises can be used to shade companion crops that may not thrive in full sun, but be careful not to block adjacent crops that need that light.
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- **Independence Day**
- **Watch for early and late tomato blight**
- **Seed late cabbage, cauliflower and Brussels sprouts for fall harvest**
- **Seed or plant endive**
- **Watch for Japanese beetles**
- **Seed late corn, snap beans, kale and broccoli**
- **Order garlic seed**
- **Mulch to conserve soil moisture**
- **Watch for Japanese beetles**
- **Turn compost**
- **Pinch the top of black raspberry canes**
- **Seed dill**
- **Seed or plant endive**
- **Remove raspberry canes after fruiting**
- **Plant Chinese cabbage**
- **Seed late sweet corn and beets**
- **Plant Brussels sprouts**
- **Don’t let weeds go to seed**
- **Add non-seed-bearing weeds to compost**
- **Pinch basil to retain four pairs of leaves per plant**
- **Plant peppers for fall crop**
- **Plant fall broccoli and Swiss chard**
- **Watch for early and late tomato blight**
- **Seed fall cucumbers**
- **Water young trees and shrubs during dry periods**
- **Plant or plant Chinese cabbage**
- **Seed late sweet corn and beets**
- **Take cuttings from herbs**
- **Seed late sweet corn and beets**
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**BACK TO GARDEN BASICS**
Creating Your Own Pollinator Haven

By Brandy Brabham, WVU Extension Agent – Roane County

Pollinators are vital to the reproductive success of more than 75 percent of the world’s flowering plants. Hummingbirds, moths, bees, beetles, flies and butterflies are some of the common pollinators found in West Virginia. Without pollination, most fruits and vegetables will not set fruit, will have incomplete or misshapen fruit, or will have a low yield.

The color, shape, odor and amount of nectar and pollen produced by flowers dictate the type of pollinators the flower attracts. Pollinators depend on plants’ nectar (sugar and water) and pollen (protein) as their primary food source.

To create a pollinator-friendly habitat for your yard and garden areas:

- Choose plants with flower blooms that vary in color, shape and height to attract a variety of pollinators.
- Choose plants that bloom throughout the growing season, providing stable nectar and pollen sources.
- Plant flowers in clumps rather than single plants to better attract pollinators and allow for better foraging efficiency.
- Diversify your flowering species with abundant pollen and nectar, planting specific flowers to feed butterfly and moth caterpillars.
- Choose flowers that are close to nature in appearance rather than highly modified hybrids and horticultural forms.

Some flower species you might consider planting to attract pollinators include honeysuckle, sunflowers, willows, black-eyed Susans, asters, violets, lupine, columbine, evening primrose and golden currant.
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<td>Water plants deeply each time</td>
<td>Seed spinach Seed fall carrots Plant cabbage for fall crop</td>
<td>Refrigerate or chill spinach seed for 1 to 2 days before sowing</td>
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<td>Plant Chinese cabbage</td>
<td>Seed lettuce for fall crop</td>
<td>Watch for downy mildew</td>
<td>Seed mustard greens Seed radishes</td>
<td>Seed fall cucumbers</td>
<td>Control broadleaf lawn weeds</td>
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<td>Take note of new varieties Seed beets</td>
<td>Harvest okra pods every other day Install sod</td>
<td>Seed rutabagas</td>
<td>Seed Asian greens</td>
<td>Watch for powdery mildew on pumpkins and winter squash</td>
<td>Seed radishes</td>
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<td>Plant strawberries</td>
<td>Seed fall herbs</td>
<td>Seed bok choy</td>
<td>Turn compost</td>
<td>Seed turnips</td>
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<td>Plant collards</td>
<td>Seed lawn</td>
<td>Apply nitrogen to strawberries</td>
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<td>Seed arugula</td>
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*BACK TO GARDEN BASICS*
Methods That Prevent Garden Pests

By Daniel Frank, WVU Extension Specialist – Entomology

When insect pest control is necessary, try the safest alternatives first. Removing insects by hand or pruning infested plant parts are often the simplest and safest ways to prevent the buildup of pest populations and their damage.

Other alternatives to chemical control, such as sanitation measures and exclusion techniques, can be effective depending on the insect pest you are targeting. Removing materials that provide shelter or moisture for an insect pest can be an effective way to reduce its presence.

Another option to reduce pest numbers is the use of biological controls. Biological controls rely on other organisms, such as any living thing that attacks the pest, to minimize pest problems. Designing and managing gardens to attract and conserve these natural pest enemies is generally a simple and cost-effective way for the home gardener to stay in control.

If native enemies need assistance, many types of biological controls can be purchased commercially. However, the success of this approach depends on the targeted pest and the type of biological control used.

For some insect pests, non-chemical and biological control strategies do not exist or are ineffective. In such cases, the use of an insecticide may be necessary.

Insecticides may be less effective during certain stages of the insect life cycle, or resistance to certain insecticide ingredients can develop in the pest population with repeated use over time. Avoiding unnecessary insecticide applications and choosing insecticides that are considered low impact can reduce any possible harm to beneficial organisms and the environment.
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<td>Labor Day</td>
<td>Order spring-flowering bulbs Seed fall carrots Seed spinach</td>
<td>Plant crocus Dig late potatoes Turn compost</td>
<td>First Quarter Renovate lawn or reseed bare spots Seed cover crop Prepare root cellar</td>
<td>Aerate lawn Save seeds Seed lettuce for fall crop</td>
<td>Plant fall turnips and radishes Divide peonies Build a high tunnel</td>
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<td>Build a cold frame Seed carrots in high tunnel or cold frame</td>
<td>Harvest early pumpkins</td>
<td>Patriot Day Don’t let weeds go to seed</td>
<td>Plant hardy evergreens</td>
<td>Control broadleaf weeds in lawn</td>
<td>Repot houseplants</td>
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<td>Plant garden mums Harvest colored peppers</td>
<td>Begin pumpkin harvest Seed fall spinach</td>
<td>Begin 14 hours of darkness to turn color of poinsettias</td>
<td>Seed rye and hairy vetch for winter cover crop</td>
<td>Seed lettuce in high tunnel</td>
<td>Repot houseplants</td>
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<tr>
<td>Autumn Begins Take a fall soil test from lawn and garden</td>
<td>Plant shallots</td>
<td>Harvest early-planted sweet potatoes</td>
<td>Water young trees and shrubs during dry periods</td>
<td>Seed salad greens in high tunnel</td>
<td>Plant hyacinths Harvest storage onions</td>
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<td>Bring rosemary plants indoors before frost</td>
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**BACK TO GARDEN BASICS**
Many homeowners can probably remember seeing their grandparents save seeds from the garden to plant the following year. This practice skipped a couple of generations, but now that people are more interested in growing their own food, seed saving is popular once again.

For the best results, use seeds from your healthiest plants with well-formed leaves and fruit. Collect only fully mature seeds so the embryo will be able to survive the drying process. Fine mesh bags work universally well for collecting seeds and seed structures.

Annual plant seeds are the easiest with which to start. Rarely do they require special treatment to germinate.

Whenever harvesting your own seeds, remove as much of the chaff and other vegetable material as possible before storing. This material, if sown along with the seed, tends to rot and may encourage fungal diseases.

For moist fruit, such as tomatoes or cucumbers, the seed is surrounded by mucilage. When the fruit is ripe, scoop out the seeds and wash in a fine sieve under running water to remove the mucilage. Allow to dry in the shade.

For seed pods, extract the ripe seeds by hanging them upside down over a paper bag in a shaded, dry, airy place and wait for the seeds to fall. Cut clustered seed heads whole, such as those of marigolds, and lay on a newspaper to dry.

The two deadliest enemies of stored seeds are warmth and moisture. Inspect the seed one last time before storing in a cool, dry environment, such as a refrigerator. Label all envelopes with the plant name and collection date, and store in a plastic zip-close bag. Consider joining a seed exchange group to increase the availability of saved seeds.
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<td>Cure onions for storage</td>
<td>Build a high tunnel</td>
<td>Dig canna, dahlia, gladiolas and tubular begonias</td>
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<td>Harvest sweet potatoes</td>
<td>Cure sweet potatoes Divide perennials</td>
<td>Harvest late pumpkins before frost</td>
<td>Remove old crop residue and seed winter cover crop</td>
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<td>Harvest sweet potatoes Divide perennials</td>
<td>Plant or transplant lilies that flower July 15 to Sept. 15</td>
<td>Seed spinach for overwintering</td>
<td>Turn compost</td>
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<td>Columbus Day Plant multiplier or potato onions Plant spring bulbs</td>
<td>Plant or transplant lilies that flower July 15 to Sept. 15</td>
<td>Save wildflower seeds for spring planting</td>
<td>Mow lawn for last time</td>
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<td>Fertilize lawn according to soil test</td>
<td>Mulch greens (chard, collards, etc.)</td>
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<td>Halloween</td>
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**Back to Garden Basics**

- First Quarter
- Harvest green tomatoes and gourds before frost
- Store winter squash in cool, dry location
- Prepare landscape bed for spring planting
- Have garden soil tested

**Full Moon**

- 13 Columbus Day
- 14 First Quarter
- 27 New Moon

**Extension Service**

extension.wvu.edu
Gardening with Limited Water

By Michael Shamblin, WVU Extension Agent – Clay County

Depending on where you garden, water may be a limited resource or you may simply wish to reduce waste. Regardless, there are strategies for you to use that can significantly lower your water needs.

Soils high in organic matter tend to have higher water-holding capacity. Think of your soil as the largest water container you'll ever own. Maintaining healthy soil high in organic matter allows the container to better hold water.

Mulching is an easy, multipurpose tool to help keep your garden hydrated. Beyond nearly eliminating the need for weeding and adding valuable organic matter, covering bare soil with mulch reduces evaporation and conserves water.

Instead of planting in long rows, consider planting in blocks. Using a block format, giving plants only the space they need to grow, creates microenvironments and allows moisture to be recycled.

When cultivating, try to only loosen the soil a couple inches deep. The less the soil is disturbed, the less soil moisture that's exposed for evaporation.

Water deep, allowing water to soak well beyond the surface. Deeply watered plants grow more substantial root systems and are less affected by drought. Consider using a drip irrigation watering system to ensure your plants are well-watered. Placing plants below the irrigation drips will only water the plant’s root zone, decreasing surface moisture that is lost to evaporation and keeping plants dry, reducing disease.

Use these techniques to reduce water consumption and keep plants healthier.
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<td>Daylight Saving Time Ends</td>
<td>Mulch carrots for winter use</td>
<td>Fertilize under deciduous trees and shrubs Turn compost</td>
<td>Water trees and shrubs thoroughly if fall has been dry</td>
<td>Remove diseased plant debris from garden</td>
<td>Apply lime and fertilizer according to soil test</td>
<td>Winterize garden tools</td>
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<td>Veterans Day</td>
<td>Harvest parsnips</td>
<td>Harvest Brussels sprouts</td>
<td>Mulch strawberries</td>
<td>Mulch thyme plants before winter</td>
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<td>Turn compost</td>
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<td>Mulch perennial beds</td>
<td>Harvest salad greens from high tunnel</td>
<td>Cut hardy chrysanthemums to 2 or 3 inches and mulch</td>
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<td>Mulch perennial herbs</td>
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<td>Fertilize houseplants</td>
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<td>Mulch garlic</td>
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<td>Thanksgiving Day</td>
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</table>
Garden Fertilization

By Brian Sparks, WVU Extension Agent – Fayette and Nicholas Counties

As the season continues and gardens grow, they undergo processes that use nutrients from the soil. Choosing the right type of fertilizer for your garden allows you to replenish lost nutrients and ensure optimum growth.

There are three macronutrients that plants require: nitrogen, phosphorus and potassium. Nitrogen helps produce new tissue, resulting in foliage production. Phosphorus enables the plant to set buds, provides vitality, increases seed size and stimulates root growth. The last macronutrient is potassium, which maintains the overall vigor of the plant.

In addition to macronutrients, the plant also needs several micronutrients like boron, copper, iron, calcium, magnesium and sulfur. These can be obtained by using lime and adding organic matter. Soil tests are a great way to know what available nutrients your soil contains and what nutrients need to be added.

When choosing a fertilizer, there will be three numbers on the label, such as 10-10-10. Those tell you what proportion of each macronutrient the fertilizer contains. The first number represents nitrogen (N), the second represents phosphorus (P) and the third, potassium (K).

The NPK ratio shows the available nutrients by weight that specific fertilizer contains. For example, if a 50-pound bag of fertilizer has an NPK ratio of 10-10-10, it contains 5 pounds of nitrate, 5 pounds of phosphate, 5 pounds of potassium and 35 pounds of filler.

For organic fertilizers, the NPK ratio is lower than synthetic fertilizers, because the ratio must show nutrients that are immediately available; however, most organic fertilizers allow the nutrients to slowly become available over time.
<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 (First Quarter)</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
|        |        |         |           |          |        | Turn compost  
Protect shrubs from harsh weather  
Mulch hybrid roses |
| 8      | 9      | 10      | 11        | 12       | 13     | 14       |
|      | Select cut Christmas tree with flexible needles  
Overwinter spinach and Swiss chard  
Mulch perennial herbs  
Begin harvest of high tunnel carrots and lettuce  
Buy live Christmas tree |
| 15     | 16     | 17      | 18 (Last Quarter) | 19       | 20     | 21       |
|    | Turn compost  
Harvest Brussels sprouts |
| 22    | 23     | 24      | 25 (New Moon) | 26       | 27     | 28       |
| Hanukkah Begins  
Winter Begins  
Christmas Day |
| 29    | 30     | 31      |           |           |        |          |
| Hanukkah Ends  
New Year’s Eve  
Plant live Christmas tree |
# Vegetable Varieties Recommended for West Virginia

*By Lewis Jett, WVU Extension Specialist – Commercial Horticulture*

<table>
<thead>
<tr>
<th>Vegetable</th>
<th>Varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asparagus</strong></td>
<td>Jersey Giant, Jersey Supreme Purple Passion, Millennium</td>
</tr>
<tr>
<td><strong>Beans (green)</strong></td>
<td>Bronco (bush), Caprice (bush), Jade II (bush), Crockett (bush), Prevel (bush), Boone (bush), Maxibel (filet bean), Strike (bush), Boone (dark-green, bush), Roma II (romano), Mountaineer (half-runner), Volunteer (half-runner), Josephine Jackson (half-runner), Fat Man (pole)</td>
</tr>
<tr>
<td><strong>Beets</strong></td>
<td>Red Ace, Pacemaker III, Touchstone Gold (yellow), Kestrel, Chioggia (multi-colored), Bull's Blood (beet tops), Baby Beat (baby-sized)</td>
</tr>
<tr>
<td><strong>Broccoli</strong></td>
<td>Gypsy, Arcadia, Emerald Crown, Lieutenant, Imperial, Major, Captain, Del Rico (side shoots), Everest, Green Magic (side shoots), Sessantina Grossa (broccoli raab)</td>
</tr>
<tr>
<td><strong>Brussels Sprouts</strong></td>
<td>Jade Cross E, Prince Marvel</td>
</tr>
<tr>
<td><strong>Cabbage</strong></td>
<td>Bronco, Bravo, Charmant, Cheers, Savoy Ace, Caraflex (mini-head), Red Dynasty</td>
</tr>
<tr>
<td><strong>Cantaloupe</strong></td>
<td>Sugar Cube (mini), Athna (large) <em>Also see Muskmelon</em></td>
</tr>
<tr>
<td><strong>Celery</strong></td>
<td>Tango, Tendecrisp</td>
</tr>
<tr>
<td><strong>Chinese Cabbage (napa)</strong></td>
<td>Jade Pagoda, Blues, Mirako, Nikko</td>
</tr>
<tr>
<td><strong>Chinese Cabbage (bok choy)</strong></td>
<td>Joi Choi, Win Choi, Mei Qing Choi</td>
</tr>
<tr>
<td><strong>Carrots</strong></td>
<td>Hercules, Mokum, Sugarsnax 54, Nectar, Napoli, Bolero, Laguna, Romance</td>
</tr>
<tr>
<td><strong>Cauliflower</strong></td>
<td>Snow Crown, Cheddar (orange), Graffiti (purple)</td>
</tr>
<tr>
<td><strong>Collards</strong></td>
<td>Top Bunch, Georgia, Vates, Champion</td>
</tr>
<tr>
<td><strong>Cucumbers</strong></td>
<td>Dasher II, Marketmore 76, Diva (burpless), Sweet Slice, Cool Breeze (pickles), Excelsior, Little Leaf (pickles), Lisboa (high tunnel)</td>
</tr>
<tr>
<td><strong>Eggplant</strong></td>
<td>Nadia, Hansel, Orient Charm, Ghostbuster (white), Fairy Tale</td>
</tr>
<tr>
<td><strong>Garlic</strong></td>
<td>Music (porcelain), Inchuellement Red German X-tra Hardy White</td>
</tr>
<tr>
<td><strong>Irish Potato</strong></td>
<td>Superior, Salem, Chieftain (red-skin), Lehigh (yellow), Russian Banana (fingerling), Purple Majesty (purple), Sierra (russet)</td>
</tr>
<tr>
<td>Vegetable</td>
<td>Varieties</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Kale</td>
<td>Red Russian, Winterbor, Redbor, Tuscan, Scotch Siberian</td>
</tr>
<tr>
<td>Kohlrabi</td>
<td>Kolibri (purple), Winner</td>
</tr>
<tr>
<td>Leeks</td>
<td>King Richard, Lancelot, Bandit, Tadorna (winter)</td>
</tr>
<tr>
<td>Lettuce</td>
<td>Buttercrunch (bibb), Cherokee (red batavin), Magenta (batavian), Sierra (bibb), Red Sails (leaf), Monte Carlo (romaine), Green Towers/Green Forest (romaine), Winter Density (green romaine), Jericho (romaine), Cherokee (bibb)</td>
</tr>
<tr>
<td>Muskmelon (Cantaloupe)</td>
<td>Athena, Aphrodite, Ambrosia, Orange Sherbet, Sugar Cube (mini), Lil Loupe (mini)</td>
</tr>
<tr>
<td>Okra</td>
<td>Annie Oakley II</td>
</tr>
<tr>
<td>Onions</td>
<td>Candy (yellow), Candy Apple (red), Red Bull (red), Copra (yellow), Red Wing (red), Beltsville Bunching, Nabechan (bunching)</td>
</tr>
<tr>
<td>Parsley</td>
<td>Giant of Italy</td>
</tr>
<tr>
<td>Peas</td>
<td>Knight (shell), Frosty (shell), Cascadia (sugar snap), Sugar Anne (sugar snap)</td>
</tr>
<tr>
<td>Peppers</td>
<td>Red Knight, Revolution, Achimedes, Paladin, Blushing Beauty, Carmen</td>
</tr>
<tr>
<td>Pumpkins</td>
<td>Magic Lantern, Aladdin, Hulk, Gladiator, Super Herc, Field Trip</td>
</tr>
<tr>
<td>Spinach</td>
<td>Tyee, Regiment, Melody, Space, Bloomsdale</td>
</tr>
<tr>
<td>Squash – Acorn</td>
<td>Table Ace, Taybelle, Autumn Delight</td>
</tr>
<tr>
<td>Squash – Butternut</td>
<td>Waltham, Butternut 242, Metro, Bugle, Avalon</td>
</tr>
<tr>
<td>Squash – Buttercup</td>
<td>Orange Cutie, Sunshine</td>
</tr>
<tr>
<td>Squash – Summer</td>
<td>Multipik, Patriot II (summer yellow), Sultan (zucchini), Independence II, Tigress (zucchini), Cashflow (zucchini), Magda</td>
</tr>
<tr>
<td>Sweet Corn</td>
<td>Incredible, Bodacious, Delectable, Montauk (all sugar enhanced var.)</td>
</tr>
<tr>
<td>Sweet Potatoes</td>
<td>Beauregard, Jewel, Evangeline, Burgundy</td>
</tr>
<tr>
<td>Swiss Chard</td>
<td>Rainbow, Bright Lights, Argentata</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>Skyway 687, Crista, Mt. Fresh Plus. Fl 91, Floralina, Big Beef, Celebrity, Primo Red, Brandy Boy, Scarlet Red, Rocky Top, Sun Gold (grape), Sunshine (early), BHN 589, BHN 876 (yellow)</td>
</tr>
<tr>
<td>Watermelons</td>
<td>Sangria, SS5244 (seedless), Crimson Sweet, Crunchy Red (seedless), Petite Treat (mini)</td>
</tr>
</tbody>
</table>

For a more comprehensive list of suggested varieties, consult the 2018 Vegetable Production Guide.
Here For You

WVU Extension Service combines knowledge and research to bring the people of West Virginia trusted, reliable resources for their everyday lives. While the Garden Calendar provides basic gardening know-how and tips, there is next-level gardening assistance and information available through additional WVU Extension Service programs.

WVU Soil Test Laboratory
Is your garden not producing like you expected? Soil testing is the easiest and most reliable method of assessing a soil's nutrients. It recommends the correct amount of lime and fertilizer to apply for crops and pastures. To learn more about WVU's soil testing services, visit extension.wvu.edu/soil-testing.

WVU Plant Diagnostic Clinic
Is your plant looking sickly? The WVU Plant Diagnostic Clinic identifies all kinds of plant problems for homeowners, gardeners, landscapers, growers and farmers. In consultation with expert faculty, the clinic recommends ways to treat or prevent the problems. For more information on the WVU Plant Diagnostic Clinic, visit extension.wvu.edu/plant-diagnostic-clinic.

WVU Extension Master Gardener Program
Ready to take your gardening skills to the next level? The WVU Extension Service Master Gardener Program lets residents expand their gardening knowledge and skills by taking part in basic and advanced training that digs deeper into various aspects of horticulture. To learn more about becoming a WVU Extension Master Gardener, visit extension.wvu.edu/master-gardener-program.

WVU Extension Family Nutrition Program
Not sure what to do with your freshly grown produce? The Family Nutrition Program helps families, youths and adults improve their health by sharing low-cost, healthy recipes, as well as other healthy lifestyle programs. For more information on how you can benefit from the Family Nutrition Program, visit extension.wvu.edu/family-nutrition-program.

Home Food Preservation
There is nothing like the taste of fresh-from-the-garden vegetables and fruits. Want to enjoy that taste all year long? Let WVU Extension’s food and nutrition experts guide you through various food preservation methods. To learn more about food preservation techniques, visit extension.wvu.edu/home-food-preservation.

For additional assistance with your gardening efforts, contact your local WVU Extension Service office.
Piquant Bell Peppers

Ingredients:
- 3 pounds (about 7) bell peppers, assorted colors
- 3 tablespoons olive oil
- ½ cup red wine vinegar
- 1 to 2 tablespoons sugar (depending on sweetness of peppers)
- ¼ cup shredded cheese
- ¼ cup salsa

Makes 8 servings

Grilled Corn with Herbed Butter

Ingredients:
- ¼ cup (½ stick) butter, room temperature
- 2 tablespoons finely chopped fresh tender herbs (such as cilantro, chives and/or flat-leaf parsley)
- ½ teaspoon kosher salt
- ½ teaspoon freshly ground black pepper
- Pinch cayenne pepper
- 8 ears corn, shucked
- 1 tablespoon vegetable oil

Makes 8 servings

Warm Butternut Squash Salad

Ingredients:
- 1 butternut squash, peeled, diced
- Olive oil
- 1 tablespoon pure maple syrup
- 3 tablespoons dried cranberries
- ⅛ cup apple cider or apple juice
- 2 tablespoons apple cider vinegar
- 2 tablespoons minced onions
- 2 teaspoons Dijon mustard
- 4 ounces leafy greens (arugula, spinach or mixed greens)
- ½ cup freshly grated Parmesan cheese
- Salt and pepper

Makes 8 servings

Oven Roasted Zucchini with Garlic and Parmesan

Ingredients:
- 1½ pounds zucchini (about 4 to 5 small/medium zucchini)
- 2 tablespoons olive oil
- Zest of 1 small lemon (1 teaspoon)
- 2 cloves garlic, crushed or finely minced
- ½ cup finely grated Parmesan cheese
- Salt and freshly ground black pepper
- 1 tablespoon vegetable oil

Makes 8 servings
Directions:
1. Preheat the oven to 400 F.
2. Place the butternut squash on a sheet pan. Add 2 tablespoons olive oil, the maple syrup, 1 teaspoon salt and ½ teaspoon pepper, and toss. Roast the squash for 15 to 20 minutes, turning once, until tender. Add the cranberries to the pan for the last 5 minutes.
3. While the squash is roasting, combine the apple cider, apple cider vinegar and onions in a small saucepan and bring to a boil over medium-high heat. Cook for 6 to 8 minutes. Off the heat, whisk in the mustard, ¼ cup olive oil, 1 teaspoon salt and ½ teaspoon of pepper.
4. Place the leafy greens in a large salad bowl. Add the roasted squash mixture and the grated Parmesan cheese. Spoon just enough vinaigrette over the salad to moisten and toss well. Sprinkle with salt and pepper, and serve immediately.

Nutrition information per serving:
150 calories; 9 g fat; 17 g carbohydrate; 4 g protein; 2 g fiber; 75 mg sodium
(Adapted from 2018 Barefoot Contessa Back to Basics)

EXTENSION SERVICE
WVU is an EEO/Affirmative Action Employer. Underrepresented class members are encouraged to apply. This includes: minorities, females, individuals with disabilities and veterans.
**Homemade Salsa**

Makes 6 servings

**Ingredients:**
- 1 cup fresh tomatoes, diced
- ½ cup corn kernels, fresh or frozen
- ½ cup onion, diced
- 1 tablespoon (or less) jalapeño peppers, chopped
- 2 tablespoons lime juice
- 2 cloves fresh garlic, finely diced

---

**Cucumber-Avocado Dip**

Makes 1 appetizer/2 tablespoons per serving

**Ingredients:**
- 1 tomato
- 2 cucumbers
- 2 cups sour cream
- 1 package dried Italian salad dressing mix
- 1 avocado, peeled and diced

---

**Garlic Roasted Potatoes**

Makes ¼ cup

**Ingredients:**
- Olive oil spray
- 1 medium garlic clove
- 2 teaspoons olive oil
- ¾ pound red potatoes
- Salt and freshly ground black pepper

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**Green Beans with Mushrooms and Shallots**

Makes 6 servings

**Ingredients:**
- 1 pound fresh green beans (trimmed and cut into 1-inch pieces)
- 1 tablespoon water
- 2 tablespoons olive oil
- ½ cup (or about 2 medium) shallots
- ½ to ¾ pound fresh mushrooms, sliced (you can use any combination of mushrooms you like)
- Salt and black pepper, to taste
Directions:
1. Line a baking tray with foil and spray with olive oil spray.
2. Wash potatoes; do not peel. Slice about ½ inch thick.
3. Mix garlic and olive oil together on the baking sheet.
4. Add the potatoes and toss to coat.
5. Spread potatoes over the sheet to form one layer.
6. Place under the broiler for 10 minutes.

Nutrition information per serving: 87 calories; 4.5 g fat; 11 g carbohydrate; 1 g protein; 1 g fiber; 0 mg cholesterol; 158 mg sodium

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Directions:
1. Combine all the ingredients.
2. Serve with low-fat baked tortilla chips or fresh vegetables, cut up.

Nutrition information per serving: 33 calories; 0.4 g fat; 8 g carbohydrate; 0 g saturated fat; 0 mg cholesterol; 26 mg sodium

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Directions:
1. Peel, seed and dice tomato.
2. Peel, split lengthwise, seed and dice cucumbers.
3. Thoroughly drain all liquid from tomato and cucumbers.
4. Mix all the ingredients and chill before serving.
5. Serve with chips or vegetables. Also good as a dressing for chicken salad.

Nutrition information per serving: 31 calories; 1 g fat; 4 g carbohydrate; 1 g protein; 0.5 g fiber; 3 mg cholesterol; 30 mg sodium

(Adapted from Epicurious.com)

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Directions:
1. Put green beans in a microwave-safe bowl with the water. Cover tightly and microwave on high for 4 minutes. Carefully remove the cover, drain in a colander, shaking off any excess water, and set aside.
2. While the beans are cooking, heat the oil over medium-high heat in a large nonstick skillet. Add the shallots and cook, stirring, until softened slightly, about 2 minutes.
3. Add the mushrooms and cook, stirring occasionally, until the water they release has evaporated and they begin to brown, about 5 to 7 minutes.
4. Add the green beans and stir to combine and rewarm.
5. Season with salt and pepper and serve.

Nutrition information per serving: 75 calories; 5 g fat; 11 g carbohydrate; 4 g protein; 3 g fiber; 7 mg sodium

(Adapted from foodnetwork.com)

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**Cool Cucumber Infused Water**

**Ingredients:**
- ½ cup sliced cucumber
- Ice
- 1 to 2 sprigs of mint
- 1 gallon water

**Directions:**
Slice cucumber and slightly mash mint. Add to water. Let sit for about 20 minutes to allow the flavor to infuse.

**Pineapple Orange Infused Water**

**Ingredients:**
- ¼ pineapple
- Ice
- ½ orange
- 1 gallon water

**Directions:**
Slice the pineapple and oranges, leaving the peel on the orange slices. Add pineapple and orange slices to water. You may be able to add water two to three more times before the flavor is gone.

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**Apple Cinnamon Infused Water**

**Ingredients:**
- 2 apples
- Ice
- 2 sticks of cinnamon
- 1 gallon water

**Directions:**
Slice apples. Place apple slices and cinnamon sticks in water. Chill overnight in the refrigerator.

**Watermelon Rosemary Infused Water**

**Ingredients:**
- ¼ seedless watermelon
- Ice
- 2 sprigs rosemary
- 1 gallon water

**Directions:**
Scoop watermelon directly into the water container. Add rosemary and fill the rest of the way with water. Let sit overnight.
**Strawberry Kiwi Infused Water**

**Ingredients:**
- 5 strawberries
- 5 kiwi

**Directions:**
Slice the strawberries and kiwi to release flavors. Add to water.

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**Blackberry Mint Infused Water**

**Ingredients:**
- 40 blackberries
- 40 mint leaves

**Directions:**
Tear mint leaves in half and smash blackberries to release flavors. Add to water.

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**Blueberry Orange Basil Infused Water**

**Ingredients:**
- 30 to 45 blueberries
- 3 oranges
- 9 basil leaves

**Directions:**
Squeeze the blueberries, quarter the oranges and tear the basil leaves in half. Add to water.

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**Raspberry Lime Infused Water**

**Ingredients:**
- 40 raspberries
- 4 small limes

**Directions:**
Smash raspberries and remove rind from limes. Add to water. Let sit overnight for maximum flavor.
Local weather conditions may alter killing-frost and frost-free dates, which are based on statewide averages over the past 20 years.

**Zone B**
- 160-day growing season
- April 30 frost-free date
- October 10 first killing frost

**Zone A**
- 145-day growing season
- May 10 frost-free date
- October 5 first killing frost

**Zone C**
- 180-day growing season
- April 20 frost-free date
- October 20 first killing frost

The 2019 WVU Extension Service Garden Calendar is produced and distributed each year as a service to West Virginia’s many home gardeners and agricultural producers. The annual calendar is just one of many meaningful projects, programs and outreach efforts provided by WVU Extension Service throughout West Virginia’s 55 counties. To learn more about how you can support our efforts, visit [give.wvu.edu](http://give.wvu.edu) (search WVU Extension).

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