Creating a vegetable garden is a great way to produce healthy food at a low cost. These tips will help you produce a healthy garden while using less water!

### Site Design
- Determine the needs of your plants and garden. Then, create a site plan before you plant. Allow time to make necessary changes.
- Don’t plant on a hill. Instead, direct the drainage to flow towards the plants to maximize water loss and limit erosion.
- Place plants that have similar water needs together to avoid over and under watering.
- Minimize excessive wind as a warm, dry wind will dry the soil and leaves. Fences, shrubs, or careful planting within the garden can help keep sensitive plants from drying out.

### Soil Amendments
- Test your soil to determine if your garden needs additional nutrients. Free soil test analyses are available from the NC Department of Agriculture, Agronomic Division. Visit their website: www.ncagr.gov/agronomi.
- Loosen soil to a depth of at least six inches. Loose soil helps water soak deeper into the soil and promotes root growth.
- Add two to three inches of decomposed organic matter to the soil every autumn. Soil amendments will help aerate the soil, improve drainage and add nutrients for plant growth. However, matter which is not thoroughly decomposed will deplete nitrogen needed by your plants.

**Recommended soil amendments:**
Humus, compost, pine bark soil conditioner, gravel, PermaTill, or any decomposed organic matter. These materials act like sponges, helping the soil hold onto moisture longer.

**Soil amendments to avoid:**
Sand, unless in large amounts, gypsum and peat moss.

### Planting your garden
- Plant rows close together. Small gardens are more efficient water users than are large gardens. Rows create shaded areas for plants which reduces evaporation. Plant

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### Choosing Plants
- Grow crops in the spring or fall. Radishes, onions, and spinach thrive in the cooler seasons and use less water. Other Water Wise plants include: squash, peppers, melons, and black-eyed peas.
- Choose plants that produce in abundance. Tomatoes, squash, peppers, and egg plant have high yields in small areas with little water; while plants such as broccoli and cauliflower require more water and space for their yields.
- Plant Water Wise perennials: Pecan trees, raspberry bushes, muscadine grape vines and many other woody plants will produce food year after year.

*After planting, cover soil with a good layer of mulch.*
radishes, onions, beets and carrots in rows as close as one foot apart; other plants may be planted in blocks.

Maintenance

- Maintain a thick cover of mulch, making sure to reposition if it becomes disturbed. Mulch helps to shade and cool the soil, prevents weeds, and retains moisture. After planting, cover soil with a three to four inch layer of mulch (grass clippings, straw, shredded leaves, wood chips, bark mulch, pine needles and newspaper). Beware of covering plant stems as this may cause disease.
- Remove weeds as they steal water and nutrients from vegetables.
- Don’t disturb the soil. Once the plants are in the ground, remove weeds by pulling or cutting at ground level, and place fertilizers on the soil’s surface.

Donate Extra Vegetables

Donate to the Inter-Faith Food Shuttle’s ‘Plant A Row’ program. Call (919) 250-0043. The Brown Bag Ministry also accepts food donations. For information, visit their website www.brownbagministry.org or email brownbagministry@yahoo.com.

Wise Watering

- Collect water from the shower. When waiting for shower or bath water to heat up, collect the water in a bucket and use it in the garden later.
- Harvest rain water to water plants. However, be careful with using water harvested from asphalt roofs. Water may need to be filtered or given to plants via subsurface methods. Water collected from metal or wooden roofs is ideal.
- Water the roots, not the leaves. Plants only absorb water through their roots—watering leaves may promote disease. Direct water to the roots with a soaker hose or drip irrigation system. If you must spray plants, water early in the day so leaves have a chance to dry.
- Water in the morning or at night when evaporation rates are low. Watering during the day causes water to evaporate before it reaches the soil.
- Water deeply and infrequently. Thoroughly soak the soil to a depth of six to eight inches which will promote deep root growth and require less water. Depending on the stage of growth and temperatures, plants may only need to be watered once every five to ten days.
- Don’t overwater. Roots need air and too much water will harm them. Plants may normally look wilted on a hot summer afternoon and will usually perk up overnight.

Tip: If plants are wilted in the morning, they probably need water.