Plan Your Spring Garden Now
by Anthony R Tackett

Each year new people get into vegetable gardening. Success or failure of home vegetable production can depend on many things, but some major reasons for failure are negligence, not following the proper instructions and not keeping up with current vegetable developments.

When planning a garden, it is important to ask a few basic questions:

- Who will be doing the work? Will the garden be a group project with family and friends, or will you be going at it alone. Remember that a small weed-free garden will produce more than a large, weedy mess.

- What do you and your family like to eat? Although the pictures in the garden catalog look delicious, there is no value in taking up gardening space with vegetables that no one eats. Make a list of your family’s favorite vegetables, ranked in order of preference. This will be a useful guide in deciding how much of each vegetable to plant. Successive plantings of certain crops, such as beans, can be harvested over a longer period of time and increase your yield. As you plan, list recommended varieties and planting dates.

- How do you plan to use the produce from your garden? If you plan to can, freeze, dry or store part of the produce, this will be a factor not only in planning the size of the garden, but also in selecting varieties. Some varieties have much better keeping quality than others. Care should be used in choosing the seeds, making sure the varieties you select are adapted to your area and intended use.

- Finally, how much space is available? How much area can be converted into usable garden space, and how much garden do you need? Do not plant more garden than you need.

Additional Planning Hints

- Plan the garden on paper first. Draw a map showing arrangement and spacing of crops. If you wish to keep the garden growing all season, you may need a spring, summer and fall garden plan.

- Plan the garden and order seeds by January or February. Some plants may be started indoors as early as January.

- In your plan, place tall and trellised crops on the north side of the garden so they will not shade the shorter vegetables.

- Group plants by length of growing period. Plant spring crops together so that later crops can be planted in these areas after the early crops mature. Consider length of harvest as well as time to maturity. Place perennial crops to the side of the garden where they will not be disturbed by annual tillage. Finally, practice crop rotation. Try not to plant the same vegetable or a related vegetable in the same location year after year.

Start onion seeds indoors in mid-to-late January; start Brussels Sprouts in early February; and start broccoli, cabbage, cauliflower, kohlrabi, lettuce and Chinese cabbage indoors in mid-to-late February.
Winter Equipment Maintenance
By Andrew Rideout

Just because it is cold outside, doesn’t mean your lawn and landscape work is complete. There are many chores that can, and should be done during the winter months. Cold weather is the time to service your tools and power equipment, build a new compost bin, calibrate your sprayer, or even identify some winter annuals for proper control methods later.

Starting your mower, tiller, weed eater, or blower next spring can be easy with a few winter preparations. Gasoline breaks down over time, leaving a gummy residue inside your equipment’s carburetor and fuel tank. When you start up your equipment in the spring, this residue gets sucked into tiny holes inside the carburetor called “jets” and stops them up. When this happens, it takes a skilled mechanic to clean the tank and carburetor. To prevent this, always drain fuel and add a fuel stabilizer to the tank. Pull the cord or turn the engine a couple of revolutions to work the stabilizer through the fuel system for best protection.

Many times our equipment gets neglected during the year while it is used regularly. Winter is the best time to make sure you have a fresh oil change. Drain the oil using the drain plug typically on the side or underside of the engine. Add new oil per manufactures recommendations and change filter if applicable. Make sure you dispose of oil properly and do not leave the equipment without oil (you might forget to add it in the spring causing serious damage to the engine).

Air filters are often overlooked and arguably, the most important maintenance item on many pieces of equipment. A precise mixture of air and fuel is needed for combustion engines to run smoothly. The air filter will ensure only clean, dust free air enters the combustion chamber. Many filters are disposable and will need to be replaced but some are the washable sponge type. Wash them with warm water and a small amount of soap; rinse and allow to dry thoroughly; and then add a little engine oil to the sponge. This will allow the filter to collect dirt and debris even better! If you use your equipment in a dusty environment, you probably should clean it much more often.

Look over all of your equipment for signs of wear. Often, cables get worn or rusty. A little lubricating oil will help tremendously on rusty cables before they get too stiff and break. Check for debris built up in the tines on your tiller or around your blade(s) of your mower. A clean piece of equipment is a happy piece of equipment. Engines produces a lot of heat which wears on the metal and decreases the life of the engine. A dirty engine retains more heat than a clean one. Take some time to clean debris and built up grime from all surfaces.

Winter is a great time to take a look at the underside of you mower. Grab the blade and push it up and down opposite the direction it turns. If you feel movement, you could have bearings bad in the spindle. Repairing them now will prevent even costlier repairs later.

Many of these maintenance items are fairly simple and will add to the useful life to your equipment. Some maintenance will prevent the need for a skilled mechanic often correlating to costly repairs. If you find problems that you are familiar with, make sure to get some expert advice from a local repair shop. Whether you do it yourself or have a repair shop do it, take a few hours this winter and take care of the equipment that takes care of your lawn and gardens!

Quick Tip
Don’t pile salt-laden snow on lawns, especially on red fescue or Kentucky bluegrass lawns, which are easily damaged by salt. Tall fescue and perennial ryegrass lawns are more salt tolerant. Water heavily in the spring to leach salts out of the grass root zone before permanent damage occurs.
Winter is a good time to prepare fruiting crops for the season ahead. Many fruit diseases can be partially controlled by being vigilant with cleanup and fungicidal sprays at proper times. Remember that pruning should take place in late February on fruiting trees. Below is a list of fruit crops along with diseases of concern and some things to do to help you have a successful harvest.

**Apple** diseases of concern: scab, cedar rust, and fire blight.
- If you are ordering nursery stock, plan on growing disease-resistant apples. Nursery catalogs will indicate varieties that are scab-resistant.
- Prune out old fire blight cankers now, while it is still cold, so new infections won't occur. Prune also to thin the tree canopy to allow good air movement and sunlight penetration.
- Remove and destroy fruit mummies left on the tree from last season. Remove nearby cedar trees, source of rust diseases, if possible.
- Obtain fixed copper or Bordeaux mixture to apply to the apple twigs and branches just as the buds begin to swell next month.
- Obtain a scab fungicide with ingredients such as mancozeb, captan, myclobutanil, or thiophanate-methyl so that sprays can be applied as green foliage (green tips) is just emerging and repeated periodically throughout the spring months. Carefully read fungicide labels before making spray applications.

**Stone fruit** diseases of concern: peach leaf curl, plum black knot, and eventually brown rot and scab.
- Apply fixed copper or Chlorothalonil sprays now to prevent peach leaf curl. In some parts of the state, it may be already too late because of warm weather, buds may have begun to swell and leaf curl infections may have just begun.
- Prune to thin the tree canopy to allow good air movement and sunlight penetration. Prune out any diseased or cankered twigs and branches from the trees. Prune out black knot disease swellings from plum trees.
- Remove and destroy last year's mummified fruit still hanging in the tree or on the ground.
- Obtain brown rot and scab fungicides with ingredients such as sulfur, captan, or myclobutanil. Read and understand the chemical labels.

**Grape** diseases of concern: black rot, anthracnose, cane and leaf spot, and downy mildew.
- Prune the grape canopy to allow good sunlight penetration and air movement, as well as to maximize fruit production. Prune out any diseased, dead, or cankered vines.
- Remove and destroy all of last year's fruit mummies hanging on the vine and lying on the ground.
- Apply lime-sulfur sprays to the dormant vines just as buds begin to swell to prevent anthracnose.
- Obtain fungicides with ingredients such as captan, mancozeb, myclobutanil, or thiophanate-methyl to be used for black rot and cane and leaf spot management. Be prepared to apply fungicides as the first green leaves are beginning to appear on the vines and to repeat the applications throughout the spring as called for on the pesticide label.

**Bramble** diseases of concern: anthracnose and orange rust.
- Prune out dead and winter-injured canes.
- Apply lime-sulfur fungicide to the canes in early spring just as the buds begin to swell, but before green tissue emerges.
- Be prepared to remove and destroy orange-rust infected blackberries and black raspberries. These plants will appear abnormally whitish and spindly in early spring as they emerge from the ground. If orange rust is present in the neighborhood, remove and destroy wild blackberries growing in nearby fields and fencerows, if feasible.
- If, because of rainy weather last year, plants died from root rot disease, improve drainage in the garden or grow brambles on raised beds.

**Strawberry** diseases of concern: fruit rot diseases.
- Apply straw mulch to the beds between the rows and under the canopy so that fruits will not have to touch the ground.
- Provide adequate spacing of the strawberry plants to provide good sunlight penetration and air movement to help reduce gray mold fruit rot.
- Hand remove dead leaves and stems from the strawberry bed to reduce the presence of the gray mold fungus.
- If sprays, such as captan, are to be used to prevent fruit rot, the sprays need to be applied to the strawberry flowers in early spring.

**Blueberry** diseases of concern: twig blights and cankers.
- Prevent twig canker diseases by avoiding stressful growing conditions. Mulch blueberries with organic matter, such as wood chips, and adjust the soil pH if necessary to provide favorable growing conditions.
- Prune out dead and dying twigs and branches from the blueberry plants.
- If, because of wet weather, blueberries are declining and dying due to root rot disease, improve garden soil drainage or grow blueberries on raised beds.

Get fruit trees, brambles and vines ordered by mid-February so they will arrive in time for planting in early March while they are still dormant.
The Season for Snow & Ice
by Dr. Bill Fountain

Like it or not, winter brings the damaging effects of snow and ice to trees and shrubs. Wet snows are bad, but freezing rain is often worse. Ice storms typically start as warm rain falls through rapidly cooling air at ground-level. This results in rain quickly turning to ice on all exposed surfaces. Freezing rain is especially serious on evergreens and deciduous species that have not shed all their foliage.

Ice is heavy. A half inch on a power line can weigh 500 pounds. For trees this can amount to a weight increase of 30 times. Corrective pruning and replacement are the only solutions once breakage has occurred. But, are there options to prevent breakage?

The natural tendency is to protect plants by shaking the ice and snow from the branches. Unfortunately this can cause long-term damage. As ice bends the branches, fluids in conductive tissues are still liquid. Only later do they freeze. Shaking damages the conductive tubes and results in air pockets called embolisms or cavitation that will never again be able to conduct water and mineral elements. The result is that plants become stressed, grow poorly, suffer desiccation making them more likely to be attacked by diseases and insects.

The best recommendation for plants covered in wet snow or ice is to do nothing. If branches are in eminent danger of breaking, ice can be melted with cold water from a sprinkler. (Warm or hot water damages plants.) Using cold water to melt ice is with the understanding that both will refreeze on the ground. This should never be used where ice is likely to accumulate on walks or roads.

Trees and concrete are both easily damaged by deicing salts. Use sand instead of salt, especially near sensitive plants such as arborvitae, beech, holly, dogwood, hemlock, Scotch pine and white pine.
Orchids are becoming increasingly popular as houseplants. One orchid you are likely to encounter is the Phalaenopsis, or moth orchid. It gets its name from the shape of the flower that resembles a moth in flight.

Moth orchids thrive in medium light. A window with southern exposure is ideal. You will notice that the pot is filled with a bark-type potting mix. In nature, these plants grow on trees, so they need a potting medium that is light and well drained—regular potting soil is not appropriate. The roots are fleshy and covered with a white spongy material. They may grow into the potting mix, around the pot or simply out into the air. This is natural and healthy for the plant.

Water plants thoroughly once the soil has become light and dry. Allow some water to flow through the pot at each watering—be sure to remove the inner pot to the sink when you are watering and allow the pot to thoroughly drain before you place it back into the outer (often decorative) pot. You may also water by placing a few ice cubes on the surface of the potting medium a couple of times each week, just be sure that the plant does not sit in water for more than a few hours. Liquid fertilizer can be applied with the water every two or three applications—follow label directions for how to dilute the fertilizer.

Plants may flower for many months, and individual flowers may last for several weeks. Do not cut the flower stalk back after flowers fade because in a few months it may branch to form additional flowers. Small plantlets may arise on the flower stalk. These plantlets can be potted up, but they will need to grow for a couple of years before they will flower.
Winter Fruit Tree Care
by John Strang

During the winter months, home orchard owners need to protect their fruit trees from rabbits and voles. But hold off on any pruning until after the worst of the cold, winter weather has passed.

Rabbits and voles injure fruit trees by chewing the bark from the lower trunk and portions of the roots. This damage may kill or severely weaken the trees.

If grass has grown up around the base of the trees, it should be removed so as not to provide cover for rabbits and voles. If your trees are mulched, pull the mulch back for five to six inches at the base of the trunk to keep the rodents away.

Pick up and discard any fruit that remains beneath the trees to avoid attracting the rodents. Cleaning up fruit from the ground should be a part of annual fall and winter orchard cleanup.

Finally install rodent guards around the lower trunk.

These may be plastic wrap guards that are commercially available. Home orchard owners can also construct their own guards using quarter inch hardware cloth.

The guards should cover the trunk to a height of 18 inches and encircle the trunk. During the winter months inspect the ground around the trees for tunnels in the grass or holes indicating vole activity. Use snap traps when vole activity is noted.

Prior to spring growth, prune out dead and diseased wood. Pruning increases air movement within the tree canopy, potentially reduces pest problems, improves spray coverage and promotes high-quality fruit production. Late February, March or early April usually is the best time to prune.

February is a good time to fertilize fruit trees. All tree fruits and small fruits (except strawberries) need fertilizer in February, based on soil test results. Go lightly, however, on fertilizer applications around pear and apple trees which had fireblight last year.
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<td>Living on a Few Acres (6-sessions)</td>
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**February 22, 2016**  
**Tomato School: Tomato Physiology and Grafting**  
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Lyon County Extension Office (Eddyville)

**February 23, 2016**  
**Planning a Butterfly and Pollinator Garden**  
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Hardin County Extension Office (Elizabethtown)

**February 23, 2016**  
**Grow, Cook, Eat Series – Potatoes, Peas, and Onions**  
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Woodford County Extension Office (Versailles)

**February 24, 2016**  
**Milkweeds for Monarchs**  
859-356-3155  
Kenton County Extension Office (Covington)

**February 29, 2016**  
**Tomato School: Tomato Insects and Diseases**  
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Lyon County Extension Office (Eddyville)

**March 1, 2016**  
**DIY Hypertufa Pots**  
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Pulaski County Extension Office (Somerset)

**March 1, 2016**  
**National Weather Service**  
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**March 7, 2016**  
**Starting Tomatoes from Seed**  
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**March 8, 2016**  
**Terrific Tomatoes**  
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Washington County Extension Office (Springfield)

**March 12, 2016**  
**Small Farm Conference**  
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Henderson County Extension Office (Henderson)

**March 15, 2016**  
**Apple Grafting Workshop**  
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**March 16, 2016**  
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**March 18, 2016**  
**Pepper Power**  
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Kenton County Extension Office (Covington)

**March 19, 2016**  
**Shiitake Mushroom Workshop**  
270-388-2341  
Lyon County Extension Office (Eddyville)

**March 19, 2016**  
**Gardening Workshop: Soils and Soil Amendments; Spring Vegetable Crops; Transplant Production**  
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Oldham County Cooperative Extension Office (La Grange)

**March 21/22, 2016**  
**Making a Mosaic Pot**  
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Hardin County Extension Office (Elizabethtown)

**March 22, 2016**  
**Transplanting Trees**  
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**March 22, 2016**  
**Grow, Cook, Eat Series – Asparagus**  
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**March 30, 2016**  
**Pruning Raspberries and Blackberries**  
859-356-3155  
Kenton County Extension Office (Covington)

**March 31, 2016**  
**New Plant Introductions**  
606-679-6361  
Pulaski County Extension Office (Somerset)

**April 5, 2016**  
**Native Trees and Shrubs**  
270-554-9520  
McCracken County Extension Office (Paducah)

**April 20, 2016**  
**Conifers for Kentucky Gardens**  
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