

Ron's Veggie Garden Tips

Save the mesh bags that oranges come in and use them next summer to dry herbs and gourds. Save pantyhose to enclose individual veggies like melons, corn, cabbage, cucumbers and small pumpkins to protect from birds and insects. Tie the pantyhose off at both ends of the veggie to keep insects out. The pantyhose will stretch with growth and dry off quickly after rain.

Did you know that many insects are dormant during the winter? When temperatures drop below 45 degrees F many insects stop eating and moving until warmer temperatures occur. This dormancy allows insects to live through very cold winter weather. Insects also have their own built in anti-freeze like compounds to prevent ice from forming inside their bodies.

Save orange juice and tuna fish cans to use as barriers around newly transplanted plants to protect them from the cutworm. Cutworms will chew through the stems at soil level. Cut both ends from the cans and push cans about an inch into the soil around the plants. After two to three weeks, the cans can be removed because the stems will have thickened enough to withstand any cutworm damage.

Don't rush the growing season. The frost-free date for the Chicago is around April 25 near the lake and May 15 away from the lake. The term frost-free means that there is still a 50-50 chance of frost on the frost-free date. Be prepared for late spring frosts. Cover tender plants with row covers, cardboard, blankets, hot caps, or newspaper. Do not use metal or plastic for protection; they can conduct cold to plants. We have had frost as late as Memorial Day.

Water vegetable transplants with a starter fertilizer. This should be water soluble, high phosphorus (N-P-K) mixed fertilizer. Phosphorus helps to promote root growth.

Get ready for rabbits in the garden. Purchase chicken wire fencing with one inch or smaller mesh. Wire should be at least three feet tall. Install around garden and bend back six inches of fencing and bury below the soil. This will keep rabbits from crawling underneath the fence.

When your lettuce begins to bolt, consider leaving the plants in the garden. Last summer, the Calgary Botanic Garden had a striking display of bolted red-leaf lettuces with their flowering stalks. Pull the lettuce in late summer for a second planting for the fall.

Eggplants are not only delicious, they are also highly ornamental. Plant smaller varieties such as 'Fairy Tale' (a 2005 AAS winner) in containers or flower beds where their colorful blossoms and fruits make an attractive presence alongside your annual flowers.

Protect cucurbit crops (cucumbers, melons, squash, pumpkins) from cucumber beetles and their payload of cucumber wilt with floating row covers after planting. Make sure to remove the row cover after the plants have begun flowering, so that they can be pollinated.

Mulch the base of tomato plants with plastic sheeting. This keeps the soil warmer, conserves moisture, and helps protect the tomatoes from diseases spread by water splashing onto the soil. Some studies have shown that using red plastic mulch can actually increase the yield of tomato plants.

When melons develop fruit, it is important to keep them up off the ground, to reduce the chance of soil-borne diseases. Smaller varieties may be grown on trellises. Larger-fruited melons may be protected by placing a waterproof barrier under each fruit, such as asphalt roofing tiles available at home construction outlets.

Harvest pumpkins before frost. Clip stems close to the vine, but not too close; leave at least two inches of stem on each. Be careful to avoid gouging or bruising the pumpkins.

Fall is a great time to have your soil tested. Soil testing labs are not as busy in the fall as they are in the spring. Call the lab ahead of time for information about cost and what types of tests they do. Be sure to take a representative soil sample of the area to be tested. Use a trowel and take small samples at 6-8 inches deep from 8-12 different spots and place in a clean container. Mix the soil and spread on paper to dry. Remove about a pint of soil to send to the lab. For a listing of soil testing labs, go to <http://www.urbanext.uiuc.edu/soiltest/> or call 773-233-0476.

Remove dead plants from the vegetable garden after frost. If plants were not diseased, they can be turned into the soil or placed in a compost pile. Leaving dead plants in the garden will provide a home for over wintering insects. Spread a 2 to 3 inch layer of organic matter over the garden and dig in. The garden will be ready for planting in the spring.

Check old veggie seeds for germination. Wet a paper towel and place the seeds in a row about an inch from the edge. Roll the paper towel up from the opposite side and put the towel in a warm area like the top of the refrigerator. Mist the towel to keep it moist. After 10 to 14 days, unroll the towel and check the number of seeds that have germinated. If less than half have germinated, either discard or seed more heavily this spring

Grow a garden in a bag. Fill a pint or quart size heavy-duty Ziploc freezer bag with potting soil making sure to push the soil into the corners of the bag so it will set upright on a windowsill. Fill the bag to within a couple of inches from the top. Sprinkle some easy to grow seeds like basil, chives or lettuce on top of the soil and lightly cover. Water lightly so the top three or four inches of the soil is moist and zip the bag shut. Place the bag in a sunny window. Check the bag in a week or so for green growth. When you see green shoots, open the bag and water when needed.

Blossom-end rot causes the blossom-end of the tomato to turn brown and black. This is not a disease. It is a calcium deficiency caused by high temperatures and fluctuating soil moisture levels such as we experienced during last summer's drought. It usually occurs on the first ripening fruits. Water tomatoes consistently with the equivalent of one inch of water per week to avoid fluctuating levels of soil moisture. Mulches will also help to conserve moisture.

Tomato cracking is caused by changes in growth rate. Last summer the most likely cause of cracking was the fluctuations in temperature and rain we experienced. Giving tomatoes the one-inch of water they need each week will reduce the problem. There are also several crack resistant varieties such as 'Jetstar' and 'Pink Girl'.

Tomato blossom drop is very common with high summer temperatures. Tomatoes will drop blossoms when daytime temperatures in the summer are above 90 degrees F. Blossoms will also drop earlier in the growing season when night temperatures drop below 55 degrees F. There is really nothing you can do except to wait for cooler temperatures.

Tomato plants fall into one of two types: determinate and indeterminate. Tomatoes are determinate if they eventually form a flower cluster at the terminal growing point, causing the plant to stop growing in height. These tend to be good canning tomatoes since the fruit ripens all at one time. Because of their smaller size, determinate vines are easier to control and support during the growing season and are good in containers.

Tomato plants that form flower clusters from the sides of the stem and continue indefinitely to grow taller are called indeterminate. These plants are the "pinups" in magazines with the picture of the tomato plant eating the garage. Indeterminate tomatoes tend to be late maturing, but continue producing until frost. These can be staked or caged with heavy fencing or concrete reinforcing wire.

For early ripening tomatoes, try some of the fast maturing vines such as Sub Arctic Plenty, Early Cascade, Early Girl, or Quick Pick.

Yellow and orange fruited varieties are not significantly lower in acid content than red tomatoes, and they are equally safe to can or process. They "taste" sweeter than red varieties, because they have higher sugar content. These include Mountain Gold, Lemon Boy, Jubilee, and Golden Boy.

Try some unusual tomatoes such as White Wonder with its creamy white flesh and skin or Yellow Stuffer with its easy to stuff lemon-yellow pepper-looking fruit.

Tomatoes are subject to a few diseases. Verticillium and fusarium wilts are soil borne diseases that cause yellowing of the leaves, wilting and premature death of plants. Resistant varieties are the best preventative. Resistant tomatoes will have "VF" on the label.

Mid-May to June 1st is a good time to plant sweet corn, squash, tomatoes, eggplant, sweet potato, and other warm loving crops.

Clean your garden tools. Remove soil and use sandpaper, steel wool or a wire brush to remove rust. Prepare a mixture of a bottle of motor oil and builders sand in a five-gallon bucket. Dip the tools into the sand several times to clean and prevent rusting. This mixture can be used over and over again. Treat the handles with boiled linseed oil and paint the handles with a bright color to make them easier to find in the garden.

Slice foam pipe insulation and place on the handles of hoes and rakes for a more comfortable grip

Use carpet pieces to cover paths in the vegetable garden

Carrots are already one of the pretty vegetables, but there are some new and rediscovered varieties beyond carrot orange.

'Dragon' is an heirloom carrot that is red purple with a yellow-orange center. It is reported to have a sweet, almost spicy flavor.

'Rainbow' is a hybrid carrot containing different colored carrots of yellow, white and orange in the same planting.

'Atomic Red' is a coral red carrot variety with an orange center that gets to about 9 inches long. The flavor is better if it's cooked.

'Purple Haze' carrot was a 2006 All-America Selections winner. When they are cut for salads a purple halo appears around the bright orange center. Similar to many of our purple vegetables, sadly the purple color fades during cooking. In stir-fried foods, however, the color will stay purple.

Carrots can be planted as early as the end of March/first of April. To get long straight carrots the soil should be loose, worked deeply, well drained and have no clods or rocks in the soil.

Try a beet called 'Bull's Blood'. It has beautiful deep purple leaves and looks good in a vegetable garden.

Try a multi-colored red, white, purple, yellow and pink Swiss chard called 'Five Color Silverbeet'

Colorful and unusual veggies are available at Johnny's Selected Seeds
www.johnnyseeds.com PH: 877-564-6697 and Seed Savers Exchange PH: 563-382-5990- <http://www.seedsavers.org/>. The SSE also specializes in heirloom seeds.

Avoid damping off with seedlings. Damping off is a major threat to young seedlings being grown indoors. Damping off is a variety of fungal diseases that can attack seedlings before or after they emerge. Damping off thrives in cold, humid, wet, conditions with poor air circulation. Symptoms of damping off include curling, wilting and collapse of emerged seedlings. Some preventative measures that will reduce the likelihood of damping off include: Use high-quality, treated seed; use sanitized soil and containers; keep soil on the dry side; and provide plenty of light and air circulation to the seedlings.

In the spring, never work your soil when it is wet. Tilling or digging when the soil is wet will cause it to dry into concrete-like clods. Pick up a handful of soil before digging and squeeze. If it crumbles easily, it is ready to be tilled. If it doesn't crumble, it is too wet. Allow the soil to dry for a couple of more days and test again before digging.

Improve clay soils by adding organic matter. Plants growing in clay soils will have shallow roots systems making them susceptible to drought. Work a 2-4 inch layer of organic matter like peat moss, composted manure or compost into the soil to a six to ten inch depth. Do this in the spring and fall.

Plant onion sets in April. Buy sets early before they start sprouting in garden centers. Divide the sets up into those that are larger than a dime in diameter and those smaller. The bigger sets are best grown for green onions. The smaller sets make the best large onions for storage. Torpedo-shaped onions will produce round onions while the round sets will produce flat onions. For green onions, plant the bigger sets one inch deep and touching each other. For large, dry onions plant the small sets one inch deep and two to four inches apart.

Buy healthy vegetable transplants. Leaves and stems should be green and healthy without any signs of yellowing or browning. Yellowing or browning leaves may indicate an insect or disease problem. Gently remove transplants from their tray and check the root system. Roots should be white with visible soil. Transplants with brown dead roots should not be purchased. Check for insects such as whiteflies or aphids. Be sure to gradually introduce your transplants to the outdoor environment over a period of days, especially plants grown and purchased in a greenhouse. When you do plant, water your transplants in with a starter fertilizer that is high in phosphorus which helps to promote root development.

A watermelon is ripe when the light green curly tendrils on the stem usually turn brown and dry; the surface color of the fruit turns dull; the skin becomes resistant to penetration by a thumbnail and is rough to the touch; and the bottom of the melon where it touches the soil turns from light green to yellow.

Zucchini should be harvested while still young and tender about 6 to 8 inches in length and one and one half to two inches in diameter. Zucchini grow rapidly and are usually ready to pick 4 to 8 days after flowering.

The highest quality tomatoes develop when temperatures average 75°F. Tomatoes may get mushy and not color well when temperatures are above 90°F. During hot weather pick tomatoes when they have a healthy pink color and let them ripen indoors.

Fresh ripe tomatoes should not be stored in the refrigerator. Refrigeration makes them tasteless and mushy. Flavor and texture deteriorate at temperatures below 54°F. Temperatures above 80°F cause tomatoes to spoil quickly. Store tomatoes at room temperature for 2 to 3 days, away from direct sunlight until ready to use.

The main source of the pungency in peppers is capsaicin, which is basically odorless and tasteless. It resides in the inside wall of the pod and the white lining, and is concentrated at the stem end. The pungency is measured in Scoville units, named after the pharmacist, Wilbur Scoville, who developed the measuring system. The range is from 0 for the bell pepper to 350,000 Scoville units for the Mexican "even your eyeballs will sweat" habanero.

Think about using organic mulches in the vegetable garden. Mulches help to hold moisture in the soil and reduce weeds. Organic mulches include compost, shredded bark, leaves, pine needles, cocoa bean hulls and dried grass. Avoid using grass clippings that have been treated with pesticides. As the organic mulch decays it adds nutrients to the soil and helps to improve soil structure and drainage. Apply a two to three inch layer of mulch around plants. Another application of mulch may need to be added later in the season. Dig the mulch into the soil at the end of the growing season.

Use a rain barrel to collect rainwater for your garden. Rain barrels collect water from downspouts on homes instead of it flowing into sewer systems. A 1/2-inch rainfall will fill a 50- to 55- gallon barrel. Water your trees, shrubs, flowers, vegetables and houseplants with collected water. One inch of rain over 1,000 square feet of area yields 623 gallons. Rainfall at the rate of 1 inch per hour will yield about 10 gallons per minute per 1,000 square feet.

Do not work in the garden when plants are wet. Many diseases can be spread in water.

Rotate crops among plant families when possible

The tomato family tomato, pepper, potato, eggplant;

The cucumber family cucumber, squash, melons; cole crops (broccoli, cauliflower, Brussels sprouts, kale); and

The onion family onions, shallots, chives, leeks.

Plant flowers in your vegetable garden. Many flowers will attract the beneficial insects, parasites and predators that help control pests. Good choices are sweet alyssum, dill, fennel, tansy, cosmos, yarrow, coneflower and sunflower.

Choose a sunny location. Most vegetables need at least eight hours of sunlight to be productive. Leafy vegetables such as lettuce and spinach will tolerate more shade than vegetables that must flower to produce a crop.

Choose disease resistant varieties. Provide good air circulation to help control disease. Stake or cage plants and allow proper spacing.

Time plantings to avoid insect problems. For instance, to avoid the worst time for squash vine borer and corn earworm, plant squash and corn so it can be harvested by July.

Some vegetables are more prone to insect damage. For instance broccoli, cauliflower, cabbage, cantaloupe, squash, potato and cucumber are pest magnets. However carrots, green onions, lettuce, pea and radish seldom have insect problems. Asparagus, bean, pepper, spinach, and tomato sometimes have insect problems.

Use floating row covers to protect plants such as broccoli and cauliflower from insects. Keep in mind some crops such as squash require bees for pollination. Uncover once flowers form or hand pollinate.

Use crushed aluminum cans or Styrofoam peanuts to fill the bottom of very large containers. This will reduce the weight and the amount of potting soil needed.

Use hydrogels in small containers and hanging baskets that dry out quickly. These particles will absorb between 60 and 400 times their dry weight in water. This absorbed water is slowly made available to the plant roots.

Attract ladybugs to the garden by planting dill, catnip, thyme, daisies, coneflower, yarrow, tansy, alyssum, marigolds and salvias.

Water the vegetable garden with the equivalent of one inch of water per week. Watering deeply, 8 - 10 inches, will promote deep root development. This will help the vegetables tolerate drought periods.

Fertilize containers with a timed-release fertilizer. This fertilizer looks like small beads that releases nutrients to plants at each watering. One application of the fertilizer will last the entire growing season.

Water the garden before 10 a.m. Avoid watering during the hottest part of the day (10 a.m. to 2 p.m). Watering at this time will cause the loss of 50 percent of the water applied.

Control cracks in tomatoes by providing uniform supplies of water to the plants and applying mulches. Cracking is caused by heavy watering or rainfall after a long, dry period. This causes rapid growth and cracking. Tomatoes exposed to high temperatures above 90 degrees F will also crack. Large fruited varieties such as 'Beefsteak' are more susceptible to cracking than crack resistant varieties like 'Jet Star.'

A method of composting in limited space is to put all of the compost materials (leaves, soil, weeds, kitchen garbage and manure) in a large, polyethylene bag, moisten it thoroughly, tie the top tightly and leave it out in the sun. Shake the bag around

occasionally and let in fresh air. Before long, you will have a convenient bag of well-rotted compost.

Water in fertilizer applied to vegetables. Applying fertilizer to dry soil can cause fertilizer burn. Water the fertilizer in with the equivalent of one inch of water. Vegetables need on average an inch of moisture per week. One inch of water is about 65 gallons of water per 100 square feet. Place a few straight-sided containers in the garden when watering with an overhead sprinkler. An inch of water in the containers is an indication your garden has received the inch of water it needs.

Check your tomato plants for signs of leaf spot diseases such as septoria leaf spot or early blight. The yellow or brown spots occur on the lower leaves first. Remove the infected leaves to prevent further spread. For control of tomato diseases, plant your tomatoes once every three years in the same area, remove old tomato plant debris from the garden before planting, avoid wetting the foliage when watering and fungicides can be used, but should be applied before the leaves show spots or when the first fruit clusters develop.

All sweet bell peppers start out as "green peppers," which is their unripe state. When peppers ripen, they will turn red, yellow, or orange, or some of the newer white or purple colors, depending on the variety grown. Pick the ripe peppers promptly as soon as they reach full size, to encourage further fruit set.

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Sow radish, lettuce, spinach, beet and turnip seed late in August. These vegetables will mature in the cooler fall weather.

Lettuce may become bitter during hot weather and when seed stalks begin to form. Wash and store the leaves in the refrigerator for a day or two. Much of the bitterness will disappear.

Plant a green manure crop in empty garden areas. Sow seeds of oats, rye or buckwheat. These cover crops can be dug or tilled into the soil in the spring. Green manure will improve soil structure and will add nutrients to the soil.

Remove dead veggie crop residue after harvest. Dead plant material can carry disease organisms and provide an overwintering home for insects.

Mulches conserve soil moisture. Mulches can also increase water penetration into the soil.

Mulches maintain a uniform soil temperature by insulating the soil. Mulches keep the soil warmer during cool weather and cooler during warm weather.

Mulches minimize soil erosion and compaction from heavy rains, heavy lawn mowers, heavy people and heavy thoughts.

Mulches improve soil structure through the decomposition of organic mulches. This is particularly important in heavy soil types. Mulches keep clay soil from cracking after rains. Mulches encourage worm activity and other beneficial life in the soil.

Mulches reduce weed problems by preventing weed seed germination.

Mulch should be about 4 inches deep. Do not exceed 6 inches in depth.

Minimize or eliminate insecticide applications. Many insecticides will kill beneficial as well as pest insects. Even natural botanical insecticides such as rotenone will kill beneficial insects.

If insecticides are chosen as a control method, use selective insecticides. Selective insecticides are toxic to specific pests and will not directly harm beneficial insects. The microbial insecticide Bt sold as Dipel and Caterpillar Attack are toxic only to caterpillars that feed on the sprayed plants. Insecticidal soaps can also be effective on pest insects without harming beneficials.

Plant a variety of flowers to attract beneficial insects. Many predators and parasites feed on pollen and nectar or use flowers to supplement their food supply if they run low on pests. Plants in the carrot family and mustard family are especially attractive to beneficials. Use plenty of plants with small flowers such as sweet alyssum, dill, fennel, garlic chives, lovage, coriander (cilantro) and white lace flower (cultivated version of Queen Anne's Lace). Other popular plants for beneficials include: blanket flower, coneflower, coreopsis, cosmos, tansy, yarrow, goldenrod, sunflowers, yellow alyssum, sweet clover, buckwheat or hairy vetch. Let a few of the broccoli plants flower.

The potomato or also called topato commonly advertised is just a tomato seed inserted into a potato tuber and planted together producing both a tomato and potato plant in the same hill.

The hotness of radishes results from the length of time they have grown rather than from their size. The radishes either grew too slowly or are too old.

A treelike plant sold as a tree tomato, *Cyphomandra betacea*, is a different species than garden tomatoes. It is a woody tree that grows eight feet or taller and bears fruit after two years. The tree tomato is tropical plant and does not overwinter outside. The fruits are

small 1 to 2 inches in diameter and are used primarily in stews rather than in salads. Some of the common vigorous indeterminate garden tomato varieties are suitable for training and pruning such as Ponderosa are also sold as climbing or tree tomatoes.

Squash varieties can pollinate each other if they are the same species. For example zucchini can cross-pollinate with Jack O' Lantern pumpkins or acorn squash. But butternut does not cross with zucchini. However the cross does not affect the flavor of the squash, cucumber or any number of veggies in the garden. Cross-pollination only affects the resulting vegetable if you are saving seed to replant next year. That's when you get a pumzinni

Harvest onions when the tops have yellowed and fallen over naturally. Knocking over the tops early will result in smaller bulbs. Pull bulbs in the A.M. and let them dry until afternoon. Place on screens or hang in small bunches for 2-3 weeks to complete the curing process. Keep the dry scales on the bulbs. This will allow them to keep longer. After drying cut the tops back to 1-2 inches long and place bulbs in cool storage area with good air circulation.

To save tomato seeds, cut the tomato open and spoon the pulp and seeds into a glass container. Alert the family and set the pulp and seeds aside for one or two days to ferment and then spray water into the fermented solution. Clean seeds will drop to the bottom of the container. Pour off the sediment. Several rinses may be necessary. Then spread the tomato seed out on paper towels to dry. After seeds are dry, package, label and date for storage in a cool (refrigerator), dry location.

Try the lazy (energy efficient) method of saving tomato seeds. Take your favorite tomato, place it on the ground where you want the plants for next year. Leave it there over the winter. Next spring you will have plenty of seedlings pop up with little effort from you.

Pick your tomatoes every day or two during hot spells (air temperature of 90 degrees F or more). With high temperatures the softening process is accelerated and color development is slowed, reducing quality. Harvest the tomatoes when color has started to show and ripen indoors.

Selecting resistant tomato varieties is the most common and practical means of controlling *fusarium* and *verticillium*. Fungicide spray will not control these wilt diseases. When selecting tomatoes, look for varieties labeled "VFN." These show resistance to *verticillium*, one or more races of *fusarium* and nematodes. Rotation of tomatoes out of an affected area for 5 to 7 years can help to reduce the incidence of verticillium wilt. Shorter rotations will have little effect. Removal of infected plant parts including roots may help.

Leaf spot diseases on tomatoes can include septoria leaf spot and early blight. Both cause spots and can cause the leaves to quickly yellow and drop, starting at the bottom of the plant. Septoria causes small water-soaked spots. These spots become circular to angular

with dark margins and grayish white centers. Early blight causes small brown leaf spots with a target-like series of concentric rings in each lesion.

To control leaf spots, improve air circulation in the garden, mulch, stake or cage vines, and remove and destroy infected leaves as soon as the symptoms start. Keep tomatoes watered with one inch of water weekly to improve vigor. Weekly fungicide sprays of maneb or chlorothalonil can be helpful. Be sure to read and follow all label directions especially the days between application and harvest. Leaf spot diseases can be easily controlled in the garden in the beginning stages of the disease. At the end of the garden season, remove and destroy tomato vines and unharvested fruit. Varieties such as Jetstar, Roma VF, and Supersonic have some tolerance to early blight.

Leaf lettuce, spinach, radishes and chard can still be planted for a fall harvest. Mix a green and red leaf lettuce variety and plant in patches in open areas of your veggie and flower garden. These colorful plantings will survive several frosts.

Plant garlic cloves in early September. Large cloves will produce the largest bulbs. Plant cloves ½ to 1 inch deep and 3 to 6 inches apart. Mulch with several inches of straw for winter protection.

Try arugula in the fall. Arugula (*Eruca vesicaria* var. *sativa*) is a member of the mustard and cabbage family and has a spicy flavor. Plant seeds ½ to 1 inch deep in rows 12 to 18 inches apart. Thin plants to four inches apart. Harvest tender, young leaves about four to six weeks after planting.

Prepare to avoid frost damage in the vegetable garden. Our first frosts usually occur around mid October in Chicago. It is often followed by a few weeks of good growing weather. Protect tender veggies like tomatoes and peppers with layers of newspapers, blankets, tarps, sheets or floating row covers. Remove the coverings soon after sunrise. Vegetables like cabbage, broccoli, kale, collards and turnips can withstand light frosts, and the frost will improve their flavor.

Asparagus plants are naturally male or female plants. They can be purchased as female plants, male plants or predominately male plants. Male plants can be 3-5 times more productive than females. Males also do not produce seeds, which can become weedy.

To plant asparagus, place crowns in a trench 12 to 18 inches wide and 6 inches deep. Crowns should be spaced 9 to 12 inches apart in the trench. Spread the roots outward with the buds of the crown facing up. Cover the crown with 2 inches of soil. As the stems lengthen through the season, fill the remaining portion of the trench with soil.

Asparagus varieties to consider for Illinois include Mary Washington, Martha Washington, Waltham Washington and Jersey Centennial. However for higher yields, consider the male hybrids of Jersey Giant, Jersey Knight and Jersey Prince.

Lady bugs are good bugs. The adults and young larvae have voracious appetites for those bad guys - aphids. Provide overwintering areas for lady bugs by planting ground covers such as vinca or English ivy.

Mantids are in the fascinating category and not really as helpful in controlling pests as some garden catalogs proclaim. The young and adult mantids feed on just about any insect they can catch, including many beneficial insects, butterflies and each other. Mantids are nearly useless for pest control in home gardens because their diets are so diverse and they have poor survival rate. Most of the mantids that hatch from an egg case will die from starvation or cannibalism. Mantids are territorial and by the end of the summer usually only one adult is left in the vicinity of the egg case...one big adult.

Wood ashes can be spread on gardens sparingly. Apply no more than 20 lbs. (5-gallon pail) per 1,000 square feet per year. Wood ashes raise soil pH so should never be used around blueberries, rhododendrons, and potatoes.

Hoses include several layers of material and usually a reinforced mesh. The thinner the hose the more apt it is to kink. 2-ply vinyl are not very flexible and are notorious for kinking. The higher the number of plies the better the hose. 4 ply is great but 3 is not bad if the reinforcing mesh is thick.

Hoses are made from plastic, rubber, nylon or vinyl in ½, 5/8 or ¾ inches in diameter. Rubber hose are more durable and resist sun and cold damage, but they are heavier to carry. Hoses are rated to the pounds per square inch (psi) of pressure that it takes to bust them. Generally the higher the psi the better the hose. 500 psi is a good hose. Larger diameter hoses deliver more water in less time so 5/8 or ¾ are good diameters.

Soaker and sprinkler hoses are very efficient methods for watering. Little water is lost to evaporation and run off. With soaker hoses the water sweats out pores. Sprinkler hoses have many holes on one side of the hose. It can either be set to sprinkle or set toward the soil. Add a timer for regular watering.

The edible parts of broccoli are compact clusters of unopened flower buds and the attached portion of stem. The green buds develop first in one large central head and later in several smaller side shoots. Cut the central head with 5 to 6 inches of stem, after the head is fully developed, but before it begins to loosen and separate and the individual flowers start to open (show bright yellow). Removing the central head stimulates the side shoots to develop for later pickings. You usually can continue to harvest broccoli for several weeks.

The America the Beautiful Funds' Operation Green Plant offers free veggie seeds. Go to http://www.america-the-beautiful.org/free_seeds/index.php for more information.

Signs of a Serious Gardener

- You can remember the date to plant the potatoes better than you can remember your own birthday.
- You suffer from zone envy. No matter what winter hardiness zone you live in, you wished you could grow plants in the next warmest zone.
- You're running out of places to garden, but under your fingernails looks promising.
- You don't hesitate to book an extra moving van just to move your plants.
- You would rather share your toothbrush than your hand pruners.
- You carry more photos of your garden in your wallet than photos of the kids.
- In the middle of winter you start cultivating the mold in the refrigerator just to see something grow.
- On vacation your car automatically turns into every garden center and botanic garden along the way.
- You know far too much about manure and you insist on sharing that information with your friends during dinner parties.
- You never have dinner before sunset during the summer.
- You delight in the harvest of the first carrot. The \$25 and 20 hours of work to produce it seems irrelevant.
- Your neighbors don't recognize your face because that's usually not the end they see.
- You hesitate when your spouse says there's not enough room in the house for both her/him and the houseplants.
- Your houseguests are afraid to stay in the guest bedroom because the philodendron looks hungry.
- In your will it states your final resting place will be a companion planting with your spouse in the garden.
- You insist on saving all 225 tomato seedlings even though you only need 6.
- Your hands have furrows deep enough to plant bean seeds.
- You have to kill a certain plant at least three times before it occurs to you that maybe you should quit trying.
- You know exactly how to run the leaf shredder, but you haven't quite figured out how to get the VCR clock to quit flashing.
- Your idea of winter fun is sticking your hand in the compost pile to feel if it's hot.
- While you are waiting in the doctor's office, you find yourself removing dead leaves from the houseplants.
- Your criteria for a quality doctor include the health of the waiting room plants.
- Your children have names like Hyacinth, Iris, Flora Bunda, Lon Moore, and Phil O'Dendron.

Source: Sandra Mason, Horticulture Educator, University of Illinois Extension

Greg Stack, Horticulture Educator, University of Illinois Extension

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