

Bobtanical Garden – Talking Points
Tuesday May 25, 2010

1. Tomatoes (Mel)
 - a. May 31
 - i. **Tomato plants will develop roots along the stem and may be set deeply at transplanting with the first set of leaves near the soil surface.** If transplants are in peat pots, remove the rim of the pot or be sure the rim is below the soil surface, so that the soil ball will not dry out. A soluble starter fertilizer, high in phosphorus can be applied at planting time. Use according to label directions.
 - ii. **Tomatoes grown unstaked are usually planted 3 feet apart in rows 5 feet apart. Plants to be staked are planted 2 feet apart in rows 3 to 4 feet apart. Plants to be caged are planted 30 to 36 inches apart.** Stakes and cages should be placed at planting time or soon after so as to not disturb the roots. Unstaked plants should be mulched with clean straw, black plastic or some other suitable material to keep the fruit off the ground and prevent rotting.
 - iii. Where space is limited or soil conditions poor, **tomato plants can be grown in containers using a disease-free planting mix.** Most any container is suitable as long as drainage is provided. Pay special attention to water and fertilizer needs of container-grown tomato plants.
 - iv. **Once the tomato plants are established, apply a mulch to conserve moisture and suppress weed growth.** If weeds do appear, they may be pulled by hand or removed by shallow cultivation. An even moisture supply is important, especially once the tomato fruits begin to develop. If the soil becomes too dry, blossom-end rot can be a problem. If too much water is applied at one time, ripening fruit may split.
 - v. Staked plants are usually pruned to a single or double stem and periodically tied loosely to the stake with soft twine. **Pruning is accomplished by removing all the branches or "suckers" that grow from the leaf axils, leaving only the main stem or the main stem and one additional branch near the base.** Unsupported and caged tomatoes may be left to branch normally. Staked and pruned tomatoes produce fewer but larger fruit than caged or unsupported plants.

2. Common Garden Weeds and How to Deal with them (Rick)

a. June 2

- i. **Weeding can be easy with properly applied surface mulch.** Mulches prevent the germination of most weed seeds, keep the soil cooler and reduce water needs by as much as 30 to 50 percent.
- ii. Natural mulches are very popular, effective and readily available. Examples include, many sizes of wood chips, shredded wood and bark, fall leaves and leaf compost, pine needles and clean hay or straw. Clean means relatively free of weed seeds. Usually it's best not to rake up grass clippings to use as mulch. It's far better to leave them on the lawn where they can recycle their nutrients back to the grass plants as they decompose.
- iii. **Wood chips and shredded wood or brush are often available from cities at no cost other than to pick them up.** These materials make excellent mulching material around more permanent plantings such as trees, shrubs or perennial flowerbeds. Composts and hay or straw mulches are better used in annual flowerbeds or vegetable gardens where they can easily be worked into the soil at the end of the season.
- iv. Apply and maintain mulches of wood chips or wood/brush shredding to a depth of 3 to 4 inches. Additional material will need to be reapplied as this material settles and decomposes. Do not apply these mulches up against the trunks of trees or shrubs, as this will often encourage stem disease problems. Leave a few inches of space between tree trunks or the stems of shrubs.
- v. In many instances you will need to apply some additional nitrogen fertilizer when you use woody mulches. This will compensate for the nitrogen that's used by soil microbes as they slowly break down the mulch. As the wood decomposes fully, these nutrients will be released to the soil where plant roots can absorb them.
- vi. **Some common weeds in the garden include:**
 1. **Creeping Jenny**
 2. **Purshlane**
 3. **Prostrate Knotweed**
 4. **Red Root Pigweed**
 5. **Canada Thistle**
 6. **Field Bindweed**
- vii. **Chemicals to use:**
 1. **Preen – trifluralin**
 2. **Round-up – glyphosate**
 3. **Poast - sethoxydim**

1. Sun Safety and Skin Cancer (Lorena)

a. June 7

- i. Discuss sun safety with Miss Hot Springs

2. Warm Season Crops (Mel)

a. June 9

- i. **Beans, corn, cucumbers, melons, okra, eggplant, peppers, tomatoes, pumpkin and squash are warm-season vegetables.** Many of these Crops grow under cool conditions, but won't produce fruit when night temperatures are in the 50 degree Fahrenheit range. They need warm temperatures to grow and mature. Once the fruit begins to form, it needs up to two months of frost-free weather. Warm-season vegetables are not suited for high elevation gardens.
- ii. **Plant warm season vegetables in rich Garden soil that gets plenty of sunlight and drains well. Work the soil early in the spring, adding one and one-half inches of organic material.** Too much nitrogen promotes leaf growth but delays flower and fruit production, so choose organic material carefully.
- iii. **Transplants are plants started indoors or in greenhouses to get an early start on the growing season.** Hardened transplants can be planted through plastic mulch or directly in soil anytime after the last average frost date.
- iv. **Protect seedlings from frost and cold air by using hot caps or other insulation methods that use water to hold the sun's heat.** This protection can add up to two weeks to the Gardening season.
- v. **Keep plants watered but not too wet. Remove weeds quickly so they don't compete with vegetable plants, and check plants regularly for insects and disease.**
- vi. **Harvest warm-season vegetables as soon as they are ripe so the plants will produce more.** Cucumbers, especially, will stop growing fruit until the ripe cucumbers are removed.
- vii. **As the season draws to a close, cover the plants on cold, frosty nights. If a snow storm or hard freeze is predicted, harvest all vegetables of a reasonable size.**

3. Gardening Tools (Rick)

a. June 14

- i. **Garden tools refer to devices used in the garden for the cultivation of flowers, vegetables, herbs, or fruit.** The tools are usually hardware made of metal or plastic materials. **Common examples are hose, watering can, rake, spading fork, hoe, shears, and shovel.**
- ii. **The hose is used to water the garden.** It is a flexible plastic pipe. It is connected to the water source and then extended to the points where we need the water. When the water faucet is opened to allow water into the garden, water then rushes into the hose and is conveyed to the garden. There are many sizes of the garden water hose, but hose of about one inch in diameter (or less) is usually appropriate.
- iii. **The watering can allows the water to come out in a desired flow rate depending on the length of the nozzles of the can.** The longer the more gentle the flow of the water and the better it is since it will reach longer distances.
- iv. **The rake is for leveling the soil.** It should be a bow rake, that is, it must have short tines so that one can remove clods of earth or rocks from the soil using it. It has some other uses also because the flat side of it can be used for smoothening of the soil. In the leveling activity, the rake is an indispensable tool.
- v. **The spading fork is used for opening the soil at the beginning of the planting action.** It is used for digging the hard ground (soil) and making it lighter for the planting activities. The more you dig the better. For trees, there is need for real digging so that the soil will be light for the tap roots to push in without much difficulty.
- vi. **The shears is known as the clippers.** It is like the scissors. The pair of shears is used for pruning. It is used to shape or remove foliage of branches of the trees or shrubs or flowers. For instance, any shape you desire to get on the flower beds is usually possible using the shears like the barber shaving the hair.
- vii. **The shovel is also a garden tool used for real digging of the ground so that one can plant the tree or the shrub.** A round ended shovel is usually recommended since it makes the digging activity easier because of the round shape of the shovel tip.

4. Watering the Garden (Mel)

a. June 16

- i. There are **three basic watering methods: hand watering (with a hose or a watering can), soaker hoses and drip irrigation systems, and portable sprinklers.** The method you choose will depend on the size of your garden, your budget, and your life style.
- ii. Regardless of the system you choose, the goal is the same: **to deliver water to the roots of the plants at about the same rate that it is removed from the soil by the plants and evaporation.** Consider your soil, your plants, and recent weather when determining how much and how often to water your garden. **Sandy soil holds much less water than clay soils. Larger plants consume more water than seedlings. Hot, windy weather dries out the soil.**
 1. **Germinating seeds and seedlings need to be kept uniformly moist without being washed away,** so water them with a gentle spray every day or two.
 2. **Developing plants need to be watered deeply, but less often, to encourage deep root growth.** Water to a depth of at least 6 inches and then let the surface inch or two completely dry out before watering again.
 3. **Crops such as lettuce, beets, green beans, and chard draw water from the top foot or less of soil. Thoroughly soak the rooting zone and then don't water until the plants show signs of needing additional water such as turning a dark bluish green or wilting during the hottest part of the day.**
 4. **Corn, tomatoes, asparagus, and rhubarb have deep root systems that allow them to draw water from the top 2 feet of soil. Deep-rooted plants need water less frequently, but need more water to reach the rooting depth.**
 5. As a general guideline, **garden plants that have been watered properly, and therefore have developed deep roots, need a thorough watering every 5 to 7 days in hot weather.**