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THE DIFFERENCE IN TOMATOES

Tomatoes are often classified as ***determinate, semi-determinate or indeterminate***. Determinate plants produce one large crop and then virtually nothing thereafter. They are favored by commercial growers that want to harvest most of the fruit from one picking. They then use succession planting where a new crop is planted on a set schedule to have fruit production throughout the season. Mature plants are smaller than other types and can be planted closer together to get the most tomatoes from a set space. Primo Red is a variety that is strongly determinate. Indeterminate plants are the traditional tomatoes that never stop growing. They are capable of producing fruit throughout the season unless disease stops production or until frost kills the plant. They do best with support as they can reach six feet tall when staked or caged.

Semi-determinate plants are more compact than indeterminate types but are also capable of producing fruit throughout the season. Most of the varieties available to home gardeners are either indeterminate or semi-determinate. Though both are capable of producing fruit throughout the season, our hot Kansas summers often cause a dry spell in production of both types. Tomatoes are less likely to set fruit when night temperatures remain above 75 degrees and day temperatures are above 95. Hot, dry winds make the situation worse. Gardeners with limited space will likely prefer indeterminate or semi-determinate types to stretch out the harvest season. If there is space, you may want to grow a combination of all three with the determinates used to produce a large harvest for canning or tomato juice and the remainder for fresh eating.

Fungus Gnats

Fungus gnats are small insects (1/8 to 1/10 inch long) that are common in high-organic-matter houseplant soils that are kept moist. Though adults are mosquito-like in appearance, they do not bother humans or pets. It is actually the larvae or maggots that can injure plants by feeding on the roots. Symptoms include sudden wilting, loss of vigor, poor growth and yellowing leaves. Use of sterile media and avoiding overwatering can help prevent infestations. Existing infestations can be controlled with Bacillus thuringiensis v. israelensis which is sold under the name of Gnatrol.

Bringing Houseplants Down to Size

We sometimes receive calls from gardeners who wish to donate houseplants that have outgrown their location. In most cases, we don't have room to accept plants and suggest that people bring them down to size by air-layering. Air-layering is a process where a branch or the main stem is encouraged to form roots while still attached to the parent plant. After rooting, the original plant is discarded and the newly rooted one is potted as a replacement. Though this

propagation technique cannot be used on all houseplants, it does work well on many that tend to outgrow their boundaries including croton, dracaena, dieffenbachia, Norfolk Island pine, rubber plant and schefflera.

It is best to choose wood that is about 1 year old. Older or more immature wood often roots poorly, if at all. Any place on the stem that is of the proper maturity can be used, but a convenient location is often about 12 inches from the tip. Following are the steps required for air-layering:

* Leaves should be removed around the area to be air-layered.

* Wound the stem. This can be done by making a slanting cut upward, an inch or more in length and halfway through the stem. Place a portion of a toothpick in the cut so it cannot close and heal. If the stem is seriously weakened, use a stick or dowel "splint" to prevent breakage.

Another method that works well is to strip the bark completely around the stem in a band one-half to one inch wide.

* Apply rooting hormone to the wounded surface of the exposed portion of the branch.

* Pack a baseball-sized wad of moist, unmilled sphagnum peat moss around the wounded area so it forms a ball. This is where new roots will form. It is important to use the long, stringy unmilled peat moss rather than the more common milled material so peat moss does not fall away from the stem when released. Secure peat with string to keep it in place.

* Wrap the ball of sphagnum peat moss with clear plastic wrap. Be sure to use enough wrap so that the plastic overlaps and prevents the ball from drying out. Secure the top and bottom edges of the wrap closed with electrical tape, string or other convenient fastener.

Roots may appear in as little as a month though it may take much longer for the plant to be ready for transplanting. Check periodically to be sure peat moss remains moist. Water if needed. When roots have filled the peat moss, the plant is ready to be severed from the parent and transplanted.

Poisonous Plants

Some of the plants we commonly use in our homes, gardens and landscapes are poisonous. We often have requests from parents who want to make sure their plants are safe for young children.

The following poisonous plant list came from various University websites.

Flowers: caladium (all parts), cardinal flower (all parts), castor bean (seeds and leaves), daffodil (all parts), flowering tobacco {Nicotiana} (leaves and flowers), four-o-clock (roots and seeds), foxglove (all parts), hellebore (all parts), iris (all parts), lantana (unripe fruits and leaves),

larkspur {Delphinium} (all parts), lily of the valley (all parts), lupine (all parts), monkshood(all parts), poppy(all parts except ripe seeds), snowdrop (bulb), spurge (milky sap), star-of-Bethlehem (all parts), sweet pea (seeds, seedlings, and pods), tulip (bulbs).

Houseplants: Chinese Evergreen, anthurium (all parts), aloe (sap if ingested), calla lily (all parts), croton (seeds, leaves, and stems), crown-of-thorns (milky sap), dieffenbachia (all parts),

elephant ear (all fig (leaves, fruits, and sap), Jerusalem Cherry (all parts), mistletoe (all parts),

Philodendron (all parts).

Fruits: apple (bark, leaves, seeds), pear (bark, leaves, seeds), apricot (bark, leaves, seeds, pits),

peach (bark, leaves, seeds, pits), nectarine (bark, leaves, seeds, pits), plum (bark, leaves, seeds, pits), cherry (bark, leaves, seeds, pits), avocado (leaves, unripe fruit, bark, and seeds).

Landscape plants: azalea (leaves and flowers), black locust (all parts), Boston ivy (berries),

boxwood (leaves and twigs), buckeye (leaves, shoots, bark, flowers, and seeds), burning bush (all parts), cherry (leaves, twigs, bark, and seeds), clematis (leaves), elderberry (roots, stems, bark, leaves, and unripe fruits), English ivy (all parts), golden chaintree {Laburnum} (all parts), holly (berries and leaves), horsechestnut (all parts), hydrangea (leaves and buds of some species),

Kentucky coffee tree (seeds, fruit pulp, leaves, twigs), oak (acorns, leaves, and young shoots of some species), poison sumac (all parts), privet (all parts), rhododendron (leaves and flowers),

Virginia creeper or woodbine (berries), yew {Taxus} (all parts), wisteria (all parts),

Vegetables: potato (green skin, buds, and sprouts on tubers, also fruits and foliage), rhubarb (leafy blade, not the leaf stalk), For more information, consult the following references.

Common Poisonous Plants and Mushrooms of North America, Turner and Szcawinski, Timber Press, Inc. ISBN 0-88192-179-3

Potentially Poisonous Plants in the House and Garden, http://www.northcarolinahealth.com/poisonous-house-plants-and-vegetables.php