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THE GRAPEVINE

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WHY HOUSEPLANTS LOSE LEAVES WHEN BROUGHT INSIDE?

Newly bought houseplants or those brought in from outside often lose at least a portion of their leaves. In order to understand why this occurs, we need to look at how these plants are grown and what the plant needs to do to adapt to its new environment. Houseplants are normally produced either under shade outdoors in southern states or in greenhouses. Also, many homeowners move their houseplants outside during the summer. Regardless, the plants receive much more sunlight than they do in an indoor environment. Research done in Florida in the late 1970s revealed that tropical plants grown under high light conditions produce 'sun leaves' while those grown under low light conditions have 'shade leaves.' These leaf types differ structurally in that sun leaves have less chlorophyll (the substance that plants use to convert sunlight to energy) and the chlorophyll that is present is located deeper inside the leaf. Sun leaves also tend to be thick, small and numerous while shade leaves are more thin, larger, and fewer in number. When plants are moved from one light condition to another they need time to adjust. This process is known as acclimatization. If they are forced to acclimatize too quickly, they will drop their sun leaves and produce a new set of shade leaves. If the acclimatization process is slower and less drastic, the plant can convert their sun leaves to the shade leaves that do better under low light. If going from shade to sun, this process is reversed. Some houseplants are acclimatized before they are sold but many are not. So how do we help our new houseplants or those moved inside acclimatize to their new home environment? Houseplants should start out in an area of the home that receives plenty of light and then gradually moved to their permanent, darker location. This process should take 4 to 8 weeks depending on the degree of difference in light levels between the initial and final location of the plant. Remember, plants need to be acclimatized whether they are moved from a sunny location to one that receives less light or from shade to sun. Understanding plant processes allows us to anticipate potential problems. Acclimatization gives our houseplants a greater chance of retaining leaves and avoiding the stress of completely replacing them.

Winterizing Roses

Though most shrub roses are hardy in Kansas, other types of roses can be more tender. For example, the hybrid teas have certain species in their ancestry that originated in the warm climate of southern China. These roses need protection to reliably survive Kansas winters. Mound soil or compost about 8 to 10 inches high around each plant. If using soil, bring it in from another part of the garden. Do not pull it from between plants because this can damage the rose roots or make them more susceptible to cold. Mounding is normally finished by Thanksgiving. After the ground has frozen, add a 4-inch mulch of straw, leaves or hay for further protection. More soil may be spread on top of the mulch to keep it in place. Do not add the mulch before the ground freezes or mice may invade and feed on the roses over the winter. The purpose of these coverings is not only to moderate the cold, but also to prevent warm days during the winter or early spring from stimulating growth that is tender to returning cold weather. Excessively tall canes should

be pruned to a height of 36 inches and tied together to prevent them from being whipped by strong winter winds. Wind can damage the crown of the plant or loosen the surrounding soil. Next spring, remove coverings before new growth starts. If soil was used for mounding, remove from the area so that the level of soil stays constant from year to year. Wait until after the ground thaws, or the tops may begin growing before the roots can provide water.

Garden Soil Preparation - It's Not Too Late

Autumn is an excellent time to add organic materials and till garden soils. Winter can still be a good time to take care of this chore as long as the soil isn't frozen. It is far wiser to till now than to wait until spring when cold, wet conditions can limit your ability to work soils easily. Working soil when it is wet destroys soil structure and results in hard clods that are very slow to break down. On the other hand, dry soil may need to be watered so it can be more easily tilled. Be sure to wait several days after watering to let soil moisture levels moderate. You want the soil moist, not wet or dry, when tilling. There is a limit to how much organic material such as leaves can be added in one application. Normally, a layer 2 inches deep is adequate with 5 to 6 inches being the maximum that can be added at one time. Shredding the material before application encourages faster and more complete decomposition due to increased surface area. Remember, soil preparation is an important key to a successful garden.

Amaryllis Culture

Now is the time to start amaryllis if you wish to have them in bloom for Christmas. The amaryllis is a tender bulb that is ready to bloom when purchased. The genus name for this plant is *Hippeastrum*, which means "horse star," an appropriate name for a plant that produces massive blooms as much as 8 to 10 inches across. These plants can produce 3 to 4 blooms on a 1- to 2-foot stem. Often, a second flower stalk follows the first at about the time the flowers on the first stem fade. The leaves usually start to appear when the flowers begin to open. Amaryllis bulbs can be huge - approaching the size of a grapefruit. The larger the bulb, the larger the flowers and the more expensive the bulb. Regardless of size, amaryllis likes tight quarters. Place in a pot only 1 to 2 inches larger in diameter than the bulb. About half of the bulb should remain exposed. Hold the bulb so the roots hang down into the pot, and add potting mix. Firm the mix around the roots carefully so that they are not snapped off. Water thoroughly and place the plant in a warm, sunny location. Amaryllis likes day temperatures in the 70s and night temperatures in the 60s. The flower bud may start to appear right away or the plant may remain dormant for a period of time, but eventually all mature bulbs do bloom. Move the plant to a cooler location and out of direct sunlight when the flower buds begin to show color so the flowers last longer. Amaryllis can remain in bloom for about a month. Flowers should be cut off after blooming to keep the plant from expending energy to form seeds. Place the plant back in a sunny location until it is warm enough to be placed outside. Sink the pot in the soil in an area that has dappled shade. The plant can be gradually moved to sunnier locations until it receives full sun for a half day. Continue to fertilize with a balanced houseplant fertilizer as you would a normal houseplant. Bring the pot in before first frost and place in a dark location. Withhold all water so the leaves have a chance to dry completely. Leaves can then be cut off close to the top of the bulb. Amaryllis can often be left in the same pot for several years but will eventually need repotting.

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