PennState Extension

Caring for Houseplants

Learning how to develop an ideal environment for houseplants will create lasting enjoyment.

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Learning how to develop an ideal environment for houseplants will create lasting enjoyment. Increasing humidity during winter when air indoors tends to be drier, or fertilizing during the warmer months when plants are actively growing are some of the small steps necessary to keep a plant healthy and pleasing to look at. If you ever notice that your houseplants aren't performing as expected or look less than desirable, start by making small changes to their environment and observe whether the plant is responding before making drastic alterations.

Purchasing plants

The steps necessary for growing houseplants should begin well before plants are purchased. Prior to purchasing any houseplant, inspect the plant carefully for insects, mites, or diseases. Reject any plant that looks unhealthy. Even after plants are taken home, isolate them from existing houseplants and watch for any signs of diseases or pests.

Watering houseplants

The amount of water a plant requires depends on both plant characteristics and environmental conditions in the home. Larger plants and plants with larger leaves will have a greater demand for water and should be checked more often than small plants or plants with smaller, finer leaves. Other factors to consider include the location of the plant in the home as it relates to light intensity, the relative humidity level (high relative humidity tends to reduce a plant's need for water), stage of development of the plant (i.e. rapid growth or resting/dormancy stage), size and type of container, and the characteristics of the potting mix. It is important that no matter or how when the plant is watered, room-temperature water is used to avoid shock to the root system. If water is too cold it can damage the leaves.

If leaf cover is dense and watering the potting mix is difficult, place the container in a pan of room temperature water for approximately 30 minutes while the potting mix absorbs water though the container's drainage holes. This method works well for plant species such as cyclamen whose leaves or crown can become damaged if they get wet.

Check plants frequently to ensure that the potting mix is kept moist, but avoid keeping it too wet or not wet enough. A popular method for determining if a plant needs to be watered is to stick a finger into the media up to the first knuckle and feel whether it is wet below the surface. Water the plant if the potting mix feels dry, and then wait to water again until the media feels slightly moist, but not too dry. For a more accurate test, a battery operated moisture meter can be purchased and used to determine when plants should be watered.

Increasing humidity

Houseplants need special care throughout the year as outdoor conditions affect the indoor environment. When fall approaches and outdoor temperatures cool, the environment inside a home can become drier when furnaces and heaters are used. A common sign of insufficient humidity is browning and withering of foliage. It may become necessary to move houseplants to the kitchen or bathroom where air can be more humid. If room is limited in these areas, simply fill a water bottle and mist the top and bottom surfaces of the plant's leaves. Spray the leaves in the morning so that the leaf surfaces will be dry before nightfall when temperatures become cooler and disease becomes more of a problem on wet foliage. Other ways to increase humidity include grouping plants together, creating a more humid environment, or by placing containers on top of a pebble tray with water. To achieve the latter, line a tray with pebbles and fill with water to just below the top of the pebbles. To prevent the potting mix from being constantly wet, make sure that the water level does not exceed the top of the pebbles.

Spacing plants

Grouping houseplants of various sizes, shapes, and leaf textures will create an appealing effect. Choose containers that complement each other and group plants in odd numbered arrangements (1, 3 and 5) to create the best overall look. Even though grouping plants together during the winter months will help increase humidity, it is necessary to space plants far enough apart so that air circulates freely around them. Plants that are too close together can actually lower humidity. If conditions are too moist, diseases can thrive. By spacing plants so that air can properly circulate around each container, the temperature decreases, even in hot weather, when humidity increases. Although air circulation is necessary, plants should never be placed in a draft of cold air.

Temperature

Most houseplants thrive in daytime temperatures between 70 to 78°F with a night temperature that is 5 to 10 degrees cooler. It will be necessary to ensure that some houseplant varieties, such as tropicals, are kept in environments where the temperature does not fall below 60°F. Consult the plant tag that came with your houseplant, a houseplant book, or your local Extension office for more information on your plant's specific needs.

Light

Houseplants can require different amounts of light for optimum growth and development. The most common light requirement is between 12 to 16 hours/day. Consult the plant tag, a book on houseplants, or talk with a knowledgeable person at a local garden center or your local Extension office about the specific requirements for your houseplant. If overhead grow lights are not the primary source of light, rotate plants often so that each side faces the light source to prevent lopsided growth. When placing houseplants outdoors in late spring and early summer, slowly introduce them to full sunlight to prevent them from becoming damaged or scorched. Whether moved indoors or moved outside, avoid sudden changes in light intensity or temperature, as this can cause leaf or flower drop.

Potting medium

Using garden soil in indoor containers for houseplants could lead to disease and pest problems. Instead, choose either a soilless or soil-based potting medium specially created for potted plants. These could include a composted soil or peat mixture with fertilizers to supply nutrients. A peat-based medium will weigh less than a soil-based medium, however, a peat-based medium is more difficult to wet if it dries out. Wet the potting mix prior to repotting houseplants to ensure that the plant will absorb water evenly.

Fertilizing

Plants need to be fertilized to ensure proper growth and development, especially during the late spring and summer months when warmer temperatures encourage growth. However, fertilizer requirements for most plants need to be reduced during the winter months. At this time watering should also be reduced to correspond with the decline in plant growth. Fertilizing is not necessary right after repotting if a potting mix with compost or other amendments is used. The media will have readily available nutrients and will be able to sustain plant growth. Begin fertilizing again when the plant shows signs of reduced, but active growth. Refer to the instructions on the bag of potting medium to determine when plants should be fertilized. Also, remember not to use a high-nitrogen fertilizer when plants are in bloom. This will result in more foliage production and less flowers.

It may be necessary to periodically flush the soil to leach soluble salts that have built up over time from fertilizer usage. Soluble salt damage (stunted growth, chlorotic or necrotic foliage, and injured roots) is most commonly caused by over-fertilization. All plants need soluble salts to thrive but in varying quantities so read the fertilizer container label carefully. To do this, add water to the container, approximately four to five times the soil volume, to push the salts through the drainage hole in the bottom of the container.

Plant maintenance

For plants to adequately photosynthesize and make the sugars necessary to grow and development, the leaves should be cleaned frequently. Dust and debris will collect on leaves when windows are open and when forced-air furnaces and heaters are used during the cooler months. Plant leaves can be cleaned with a damp sponge or rag, or small plants can be dipped into a pan or bucket of room temperature water. To clean plants using this method, fill a container deep enough with room temperature water to completely immerse the plant foliage. Gently invert the plant by holding the container and plant stems with your hand and swirl the plant in the water. Remove the plant from the water and let the leaves air-dry. Plants should be washed early in the morning so that they can dry completely before evening. Cacti and similar plants should not be dipped in water and/or cleaned with a damp sponge. Instead, a small soft toothbrush or makeup brush can be used to dust stems, spines, and thorns.

Repotting houseplants

The most appropriate time to repot is in the spring-- this allows roots to become established in the new medium. When repotting a plant into a new container, it is best to choose one with drainage holes. This will allow excess water to freely drain from the media, preventing overwatering and oversaturated potting media. If a new plant is purchased and the container does not have drainage holes, either repot the plant into a new container with holes or, if possible, remove the plant and drill or poke holes in the bottom of the original container. For more detailed information on when and how to repot houseplants, consult Repotting Houseplants (https://extension.psu.edu/repotting-houseplants).

Suggested Further Reading

- Hessayon, D.G. 2002. The Houseplant Expert. Transworld Publishers, London.
- Jantra, I. and Kruger. 2000. The Houseplant Encyclopedia. Firefly Books, New York.
- Kramer, J. 1999. Easy-Care Guide to Houseplants. Creative Homeowner, Upper Saddle River, New Jersey.

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Expertise

- Alcoholic beverage trends
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