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BASIC HOUSEPLANT CULTURE

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Cultivating plants inside the home is both a popular hobby and interior decorating technique. Over 75 percent of all American families use living plants as a part of their home decor and/or cultural expression.

To maintain these living plants in good health and an attractive condition requires that each is provided a suitable environment in which to grow. To accomplish this the homeowner must control a number of environmental factors, such as light, temperature, humidity, water, and plant nutrients. The right combination results in healthy plants. Too much or too little of any one factor results in poor plant health or loss of the plant.

A houseplant is simply an outdoor plant which has been planted in a pot and cultivated indoors. Not all plants are suitable for indoor culture. Some require environmental conditions which are impossible to duplicate indoors. Others are adaptable to indoor culture where their minimum growth needs can be provided for. The key to successful indoor plant culture is to select plants which are adaptable to the conditions of your home.

The normal home provides a number of different environments. Light varies from sunny windows to dim corners. Humidity is usually much higher in kitchens and bathrooms than in living rooms. Temperatures vary widely at different places in the home. Plants in living areas receive long hours of light (either natural or artificial) the year around, but plants in bedrooms normally receive only minimal supplemental light. The overall climate in the home may vary from subtropical to arid desert conditions in various locations.

The environmental factors of light, temperature, and humidity are to a large extent predetermined by managing the conditions of the home for the comfort of the family. Other environmental factors, such as water and available nutrients, can be managed solely for the sake of the plants. By selecting the best site for specific plants and managing the amount of water and nutrients supplied, it is possible to grow most of the common "houseplants" in any home.

Specific Plant Needs

Each of the numerous varieties of plants commonly cultivated as houseplants has its own set of desired environmental conditions. There are many sources of information for the specific cultural requirements of each kind or type. Check with the florist or garden store that supplied the plant, local garden club members or neighbors, houseplant books (there are hundreds on the market, many available at your local library), garden encyclopedias (also available at libraries), and garden news columns written by houseplant enthusiasts.

In general the environmental needs of any particular plant will be those which most closely approximate the environmental conditions where the plant grew native. Understory plants (those

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which grow native on the forest floor) prefer diffuse light. Open prairie plants prefer strong light. Tropical and subtropical species prefer humid conditions, and desert species require arid conditions. Cool-climate species prefer cool nights and warm days, while tropical species prefer warm temperatures at all times. Learn about the specific plants you are growing (or plan to acquire) and place them in a portion of your home which provides the best combination of environmental factors for their needs.

Managing Light

The most expedient method of adjusting light intensity is to move the plant closer to or farther from the light source. This may place the plant in the wrong spot for your convenience. Other alternatives to increase light intensity include:

- Move the plant to a lighter room (south versus north exposure).
- Place the plant near an electric light.
- Provide separate artificial light for the plant.
- Provide reflected light with a light-colored wall or mirror.

To reduce light intensity you can:

- Place a lace curtain between the plant and window.
- Use venetian blinds to intercept and divert direct sunlight.
- Reduce reflected light with a dark backdrop.
- Shade the plant with another plant.

Managing Temperature

Home temperatures are adjusted for the comfort of the family but temperatures vary considerably in most homes. Bedrooms are usually cooler than bathrooms or living areas. South-exposure rooms are usually warmer during the day than north-exposure rooms. Fortunately most plants can tolerate a fairly broad range of temperatures and will thrive at normal home temperatures if other environmental factors are satisfactory.

Managing Humidity

Many plants desire a more humid climate than is offered by the average home. Ferns, ivys, and other humid-climate plants will normally grow best in bathrooms or kitchens where the air is usually more humid. The relative humidity around any plant can be increased by placing the pot on a bed of moist gravel. Shallow trays of wet gravel evaporate water into the air around the plants. Damp sphagnum moss packed between the pots in planters will also evaporate water into the air. This has the added advantage of acting like a wick to draw up and dispose of excess water in the bottom of the planter box.

Grouping plants together in the same room will raise the relative humidity for all. Plants transpire water continuously. The more plants you are growing, the more water they are transpiring into the air.

You could use a humidifier in your home. The higher relative humidity preferred by plants is also healthier for people.

Managing Water

Watering is the most important (and most often abused) cultural practice. Plants must have a continuous and adequate supply of water but they can only absorb water from the soil under certain conditions. First there must be a supply of water in the soil. The soil particles hold a certain amount of water too firmly for the plants to take. The water supply available to plants is water in excess of that required to satisfy the soil itself.

Secondly, there must be some air in the soil in order for the plant roots to function and absorb water. Therefore, the soil must not contain so much water that there is no room left for air. A good potting soil will not hold too much water if there is a hole in the bottom of the container to allow excess water to drain away.

The difference between these two extremes is called the available water supply. Proper water management is a watering program which avoids both extremes and maintains a supply of available water at all times. The following guidelines will help you establish a satisfactory watering schedule.

1. Use a well-prepared potting soil for planting. This is to assure a good water-retention capacity in the soil.
2. Always have a drainage hole in containers so excess water can drain away. This will prevent overwatering.
3. When watering, use enough water so that a little runs out the drainage hole. This assures you that you have "replenished" the available supply and reduces salt buildup.
4. Allow the soil in the pots to become dry on the surface before you water again. This maintains a good balance of air and water.
5. If some plants require frequent watering, move them into slightly larger pots (with correspondingly larger water-holding capacities).

Managing Nutrients

Plants growing in containers have a limited volume of soil from which to extract the mineral nutrients (fertilizer) needed for growth. The supply of nutrients in the containers is rapidly exhausted if the plant is actively growing and must be replenished regularly. The easiest way to replace mineral nutrients is to water the plants with a solution of soluble fertilizer.

There are many totally soluble fertilizers available in most garden stores. Since they vary in strength (percent of fertilizer nutrients), dilute or dissolve them in your watering can according to the label directions. Mix only enough of this fertilizer solution to water your container plants once each time you fertilize. Fertilize your houseplants regularly with a soluble fertilizer. During the long days of the year (Easter to Thanksgiving) when they are actively growing, fertilize about every other week. During the short days of the year (Thanksgiving to Easter) fertilize only every four to six weeks, and if the plants are totally dormant do not fertilize until new growth starts.

Cultivating houseplants is an enjoyable and rewarding experience. The basic culture is not difficult and most plants require only a few minutes attention each week once the basic environmental requirements are satisfied. They do, however, require this minimal care on a regular basis. Plants are living things and must be managed so that their life-support systems are continuous.

The following chart lists the basic management for some of the common houseplants. These are general cultural recommendations only. Normal humidity refers to average home conditions; high indicates a need for special humidifying techniques. Normal watering refers to the general recommendations outlined above: moist means constantly moist soil, and dry refers to thorough drying between waterings. High fertility refers to more frequent fertilization than the "medium" schedule described above.

Houseplant	Soil Mix	Light	Humidity	Water	Fertility
African violet *(Saintpaulia)*	organic	low (long hours)	normal	moist	high
Begonia—fibrous (Begonia—Semperflorens)	general	high	normal	normal	medium
Begonia—angelwing (Begonia Rex hybrid)	general	low-med.	high	normal	medium
Cactus—all varieties	desert	high	low	dry	low
Christmas cactus (Schlumbergera)	general	medium	normal	normal	medium
Coleus *(Coleus blumei)*	general	high	normal	moist	high
Dieffenbachia (dumb cane)	organic	medium	normal	normal	medium
Dracaena (corn plants)	organic	medium	normal	normal	medium
English ivy *(Hedra helix)*	organic	low-med.	high	moist	high
Ferns (many species)	organic	low	high	moist	medium
Geranium (*Bellargonium* sp.)	general	high	normal	dry	medium
Hoya *(Hoya carnosa)*	desert	high	low-med.	normal-dry	low
Impatiens	general	med-high	normal	moist	high
Jade plant *(Crassula argorescens)*	general	med-high	low	normal	medium
Kalanchoe (many varieties)	desert	high	low	dry	low
Pepperomia (many varieties)	general	med-high	normal	normal	medium
Philodendron (many varieties)	organic	medium	normal	moist	medium
Rubber plant (*Ficus* species)	organic	medium	normal	normal	medium
Sedums (many varieties)	desert	high	low	normal	low
Zebra plant *(Alphelandra squarrosa)*	general	medium	high	moist	medium