

A general guide to
**HOUSE
PLANTS**



West Virginia Department of Agriculture
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HOUSEPLANTS

What types of houseplants do you like to grow?

From African violets to Zygocactus, or from Zebra plant to Aglaonema, for everyone, and everywhere, there's a plant which will flourish.

The usual method of selecting plants is by appearance. For color, the various green and yellow, or red, bronze, and gold crotons are nice. Tall plants are Dracaena, Marginata, Schefflera, and some of the figs.

Along with these, are hanging plants, creeping plants, terrarium plants, flowering plants, cacti, clinging vines, etc., etc., etc.

But stop a minute. Can you remember how many times you selected a plant only to watch it fade away? How about those African violets which refused to bloom? And what about the beautiful cactus that became mushy after only a short time in your home? Perhaps a new approach would help.

Determine how much light, water, and humidity is available in the intended location, then select a plant which will grow there.

Pick a room in your house . . . the kitchen. Plants will help renew the air and show off nicely against shiny appliances. Hanging plants would be most suitable, due to the lack of free counter space.

Now consider the environment. Humidity is high from steam produced by cooking and dishwashing. Usually light is medium to dim because kitchens often have curtains blocking out much of the natural light.

Now, look at Chart #1. Find a plant which prefers medium or dim light and high humidity. Araca Palm, Crysaliidocarpus Tricolor, False Aralia, Dracaena, Fittonia, Helxine, Maranta, Boston Fern, and Strawberry Begonia all fit the requirements. Remember however, a hanging plant would probably be more appropriate. Of the plants listed above, Fittonia, Helxine, Boston Fern, and Strawberry Begonia are suitable for hanging.

From this point, once again find each of these plants on the chart to see how often each needs to be watered. Fittonia likes it barely moist; Helxine and Boston Fern prefer a moist soil; and Strawberry Begonia will grow well if moist or barely moist.

That's all there is to it! Identify your environment; select the plants to fit it; then check for culture procedures.

Beyond the charts you'll find a further breakdown of environment, some information on fertilizers, insects, diseases, and where to obtain plants. Also included is a list of suggested plants for particular environments.

The first three categories are temperatures. Usually the plants will withstand temperature cooler or warmer than those listed; however, those given are **optimum** growing temperatures at which the plants can best develop.

The category entitled "Plants That Will Withstand Abuse" will be perhaps the most helpful if you insist on trying to grow plants in environments which are less than optimum.

These plants will withstand **moderate** underwatering, overwatering, too hot or too cold temperatures, and other variances from the recommendations.

The next three categories for houseplants are based on containers. Remember, these are suggestions and are most helpful if you already have the container and are wondering what to buy for it. Many of the vines listed for totem poles are equally effective in a hanging basket or a large tub if allowed to fill and spill over the top.

WATER

Moist - Keep the soil uniformly moist- this type of plant should be watered again when the soil starts to dry out.

Barely Moist - The soil should be kept moist but may be allowed to dry out partially between waterings.

Moderately Dry - Let the soil dry out completely between waterings.

Remember that overwatering is the greatest cause of houseplant destruction – don't overdo it! When you water, give the plant enough so that the water runs out through the bottom but don't let the pot stand in excess water for more than a half hour. Also, to keep leaf surfaces clean and aid in the plant's respiration, wipe the leaves with water moistened cloth.

HUMIDITY

High - The plant is most suitable to the high humidity of the greenhouse but can be kept in the home if misted frequently.

Medium - This plant does fairly well in normal house air, although it may be advisable to mist occasionally.

Low - This plant can withstand dry to normal air without any special treatment.

LIGHT

Bright - Full sun for no more than 4 hours a day or strong reflected light such as in a south, east, or west window.

Medium - No direct sunlight, although bright diffused light as through a sheer curtain, or 4 to 8 feet within the room. East, west or clear north window.

Dim - Indirect light, more than 8 feet from a window, or in a semi-shady corner.

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	WATER			HUMIDITY			LIGHT		
	Moist	Barely Moist	Mod. Dry	High	Medium	Low	Bright	Medium	Dim
Aglaonema (Chinese Evergreen)		✓			✓				✓
Aloe (Healing Plant)			✓			✓	✓		
Aphelandra (Zebra Plant)	✓			✓				✓	
Araucaria (Norfolk Is. Pine)		✓			✓			✓	
Ardisia (Coral Berry)		✓			✓			✓	
Asparagus sprengeri		✓			✓			✓	
Aspidistra (Cast Iron Plant)		✓			✓				✓
Asplenium nidus (Birdnest Fern)	✓				✓			✓	
Beaucarnea (Pony Tail Palm)		✓			✓		✓		
Begonia		✓			✓			✓	
Bromeliad		✓			✓			✓	
Cactus			✓			✓	✓		
Ceropegia (Rosary Plant)			✓			✓		✓	✓
Chamaedorea elegans (Bella Palm)	✓				✓			✓	
Chlorophytum (Spider Plant)			✓			✓		✓	✓
Chrysalidocarpus (Araca Palm)	✓			✓				✓	
Cissus rhombifolia (Grape Ivy)		✓			✓			✓	
Citrus (orange, lemon, lime, etc.)		✓			✓		✓		
Crassula argentea (Jade)			✓			✓	✓		
Croton		✓			✓		✓		
Cryptanthus		✓		✓				✓	
Dieffenbachia (Dumbcane)		✓			✓			✓	
Dizygotheca elegantissima (False Aralia)		✓		✓	✓			✓	
Dracaena marginata		✓			✓			✓	✓
Dracaena (others)		✓		✓	✓			✓	
Echeveria			✓			✓	✓		
Ficus benjamina (Benjamine)		✓			✓			✓	
Ficus elastica decora (Rubber)		✓			✓			✓	✓
Fittonia (Nerve Plant)		✓		✓					✓
Fuchsia	✓				✓			✓	
Gardenia		✓		✓	✓		✓		
Gynura (Purple Passion/Velvet Plant)		✓			✓			✓	
Hedera (Ivy)		✓			✓		✓	✓	✓

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	WATER			HUMIDITY			LIGHT		
	Moist	Barely Moist	Mod. Dry	High	Medium	Low	Bright	Medium	Dim
Helxine (Baby Tears)	✓			✓				✓	
Hibiscus		✓			✓		✓	✓	
Howea (Kentis Palm)	✓				✓			✓	
Hoya (Waxplant)			✓		✓			✓	
Kalanchoe (Pregnant Plant & Others)		✓			✓		✓		
Livistona (Chinese Fan Palm)	✓				✓			✓	
Maranta (Prayer Plant)	✓			✓				✓	
Monstera deliciosa (Split Leaf)		✓			✓		✓	✓	
Nephrolepis (Boston, Whitman Fern)	✓			✓				✓	
Nephtytis (Syngonium)		✓			✓			✓	✓
Peperomia		✓			✓			✓	
Philodendron (Heart leaf, selloum)		✓	✓		✓		✓	✓	✓
Phoenix (Date Palm)		✓			✓			✓	
Pilea	✓				✓			✓	
Pittosporum		✓			✓		✓		
Platynerium (Staghorn Fern)	✓				✓			✓	
Plectranthus australis (Swedish Ivy)		✓			✓			✓	
Podocarpus		✓			✓			✓	
Rhoeo (Moses in the Boat)		✓			✓		✓	✓	
Saintpaulia (African Violet)		✓			✓			✓	
Sansevieria (Snake Plant)			✓		✓			✓	✓
Saxifraga sarmentosa (Strawberry Begonia, Strawberry Geranium)	✓	✓		✓	✓		✓	✓	
Schefflera		✓			✓			✓	
Schlumbergera (Christmas Cactus)		✓			✓			✓	
Scindapsus (Pothos, Verrigated Philodendron)		✓			✓			✓	
Solanum (Jerusalem Cherry)		✓			✓			✓	
Spathiphyllum (Spathe Flower)		✓			✓			✓	✓
Succulents			✓			✓	✓	✓	
Tolmiea (Piggy Back Plant)		✓			✓				✓
Tradescantia (Wandering Jew)		✓			✓			✓	
Yucca (Yucca Dracaena)			✓			✓	✓	✓	

TEMPERATURE

Most foliage houseplant are adaptable to a range of temperatures but as a general rule, between 65 and 75 degrees during the day and 50 to 60 degrees at night. Try to avoid placing plants directly in front of either hot or cold drafts.

FERTILIZERS

Liquid, dry (powder or granulated), or slow release, the choice is yours. The fish emulsion and other organic fertilizers contain trace elements not contained in other chemical fertilizers and should be considered if an artificial soil mix is being used.

The three numbers (the analysis) on the container are a clue toward the product's use. The first number is the Nitrogen (N). Nitrogen promotes growth and should be lower of fertilizers for flowering plants than it is on fertilizers for foliage plants.

The second number is Phosphorus (P). Phosphorus should be higher for flowering plants because it promotes good flower, seed, and root production.

The third number, Potassium (K), is for general vigor and as a general rule, should be relatively in balance with nitrogen to keep strength in a the new growth. Fertilizers for foliage plants usually contain more nitrogen.

Houseplants should be fed fertilizer when they are actively growing. Never feed them when they are in flower because this will encourage the flowers to fade quickly in preparation for seed production. Feeding a plant when it is going through a "rest period" can lead to fertilizer salt build-up in the soil which can be dangerous.

There is no specific feeding frequency; follow package directions.

INSECTS

Check your houseplants for insect pests each time you water. The most common insects are aphids, spidermites, and whiteflies.

Aphids are small sucking insects which attach themselves to the most succulent part of the plant and feed on the juices within.

Spidermites are tiny creatures which, when large numbers are present, will web over parts, or sometimes all of the plant.

Whiteflies also suck the plant's juices and can be seen flying around the plants when disturbed.

All of the above can be controlled with many of the aerosol houseplant insecticides available at local houseplant supply outlets.

Often, small gnats can be seen around houseplants, especially on the soil. These gnats occasionally feed on the tender roots but generally feed only on the decaying organic material in the soil – hence the name “rots gnats.”

Rather than being a pest themselves, rot gnats are usually a sign of other problems. Overwatering, compacted soil, or too large a pot can encourage rot gnats to breed. If the plants are healthy and growing, the gnats shouldn't bother them.

DISEASES

The most common “disease” of houseplants is their environment. Here are some general symptoms:

LIGHT:

Too much - scald, browning of the exposed surfaces. Leaves will not green up after the situation has been improved.

Too little - loss of lower leaves, new leaves seem too small, length of stem between leaves is too great. Colored leaves turn green (coleus and croton).

WATER:

Too much - roots rot, stem rots at ground level, leaves turn yellow. Cacti get mushy. Soil molds.

Too little - plants look dull, limp.

HUMIDITY: (Air Moisture)

Too much - fungi grow on leaves, stems, sometimes on soil.

Too little - leaves brown off from leaf tip back to stem. Leaves drop from some plants.

CONTAINER:

Too big - same symptoms as too much water.

Too small - plant slows in growth, wilts, loses leaves, often won't flower.

To cure the symptoms, correct the problem. Humidity can be raised by using a vaporizer – the cool mist is best, as it doesn't heat the room and can't promote a steamy atmosphere for fungi growth. Humidity is lowered by turning on heat. The problem of light and water should never occur if you pick your plants to fit the location's climate.

OBTAINING YOUR PLANTS

Friends and neighbors often can provide a wealth of plant materials in the form of cuttings from their own plants. Most cuttings can be rooted in water or damp sand if a plastic bag is placed over them. Commercial rooting hormones are an aid when rooting in sand but should not be used on succulents.

When buying plants from the store or greenhouse or accepting them as gifts, check them carefully for pests. Isolate them for 10 days to make sure you aren't bringing undesirable creatures or diseases into your home.

POTTING SOILS

A soil should be spongy enough to hold moisture and porous enough to provide air to the roots. A good potting soil should not swell with the addition of water or shrink with drying because this damages roots and allows added water to run around the outside of the soil ball rather than being absorbed through it. Also, the soil should be heavy enough to hold tall plants securely. Two tests for a good soil are:

(1) Take a handful of dry soil and blow gently on it. If it floats away like peatmoss, add loam (finer soil particles) to it.

(2) Take a handful of slightly moist soil and make it into a ball. Bounce it in your hand. If it falls apart after a gentle bounce or two, good. If it sticks together, add organic matter (peatmoss, leaf mold, etc.).

STERILIZING SOIL

Commercial soils are already sterile. Home mixtures can be sterilized to kill weed seeds, insects, fungi, and diseases by putting the soil in a shallow pan and heating it in the oven. Maintain a temperature of 180 degrees F. for one half hour. Do not overheat! Overheating can cause harmful changes in the soil.

POTS

Clay, glazed clay, or plastic pots, if they have drainage holes, are good. Fancy pots without drainage should be used only as receptacles for unattractive pots with drainage.

SUGGESTIONS

PLANTS THAT WILL WITHSTAND ABUSE

Australian Umbrella Tree (Schefflera)	Jade Plant
Cast-iron Plant	Ovalleaf Peperomia
Chinese Evergreen	Pleomele
Crown of Thorns	Snake Plant
Devil's Ivy	Spathiphyllum
Fiddleleaf Fig	Trileaf Wonder
Grape Ivy	Tuftroot (D. amoena)
Heartleaf Philodendron	Veitch Screwpine
India Rubber Plant	Zebra Plant

PLANTS FOR EXTREMELY DRY CONDITIONS

Bromeliads	Snake Plant
Cacti	Scindapsus (Pothos)
Crown of Thorns	Wandering-Jew
Ovalleaf Peperomia	

VINES AND TRAILING PLANTS FOR TOTEM POLES

Black Pepper	Philodendron
Creeping Fig	Scindapsus (Pothos)
English Ivy cultivars	Syngonium
Grape Ivy	Wax Plant
Kangaroo Vine	

SUGGESTIONS FOR LARGE TUBBED SPECIMENS

Australian Umbrella Tree (Schefflera)	India Rubber Plant and cultivars
Dracaenas	Palms
False Aralia	Philodendrons
Fatshedera	Silk-Oak
Fiddleleaf Fig	Tuftroot
	Veitch Screwpine

PLANTS FOR LOW TEMPERATURE (50-60 DEGREES F. AT NIGHT)

Australian Laurel	Flowering Maple
Azalea	Fuchsia
Baby's Tears	Geraniums
Black Pepper	German Ivy
Boxwood	Honeysuckle
Bromeliads	Jerusalem Cherry
Calceolaria	Kalanchoe
Camellia	Miniature Holly
Christmas Begonia	Oxalis
Cineraria	Primrose
Citrus	Sensitive Plant
Cyclamen	Spindletree
Easter Lily	Vinca major
English Ivy cultivars	White Calla Lily
Fatshedera	

PLANTS FOR MEDIUM TEMPERATURE (60-65 DEGREES F. AT NIGHT)

Achimenes	Crown of Thorns	Peperomia
Amaryllis	Dracaena marginata	Poinsettia
Ardisia	Easter Lily	Rose
Avocado	English Ivy cultivars	Shrimp Plant
Bromeliads	Gardenia	Silk-Oak
Browallia	Grape Ivy	Ti Plant
Chenille Plant	Hibiscus	Tuberous Begonia
Christmas Cactus	Hydrangea	Velvet Plant (Gynura)
Chrysanthemum	Norfolk Island Pine	Wax Begonia
Citrus	Palms	Wax Plant
Copper Leaf	Pilea	Yellow Calla Lily

PLANTS FOR HIGH TEMPERATURE (65-75 DEGREES F. AT NIGHT)

African-violet	Chinese Evergreen	Philodendron
Aphelandra	Croton	Scindapsus
Australian Umbrella Tree (Schefflera)	Dracaena (others)	Seersucker Plant
Banded Maranta	Episcia	Snake Plant
Cacti and Succulents	Figs	Spathiphyllum
Caladium	Gloxinia	Veitch Screwpine
	Golddust Plant	

PLANTS FOR HANGING BASKETS

African-violet	Italian Bellflower
Anthericum (Spider plant)	Ivy Geranium
Asparagus Fern	Pellionia
Begonias (some types)	Peperomia (some species)
Black Pepper	Philodendron (some species)
English Ivy cultivars	Saxifraga
Episcia	Scindapsus (pothos)
Fuchsia (some cultivars)	Syngonium
German Ivy	Trailing Coleus
Goldfish Plant	Wandering-Jew
Grape Ivy	Wax Plant
Honeysuckle	

NOTE: Suggestions taken from Extension Bulletin 274, Agricultural Extension Service, University of Minnesota

For more information, contact your County Extension Agent or the West Virginia Department of Agriculture. Both exist to serve you in any way possible.

AGRICULTURAL REGULATIONS AFFECTING HOUSEPLANTS

Practically every state has agricultural laws that govern the movement of plants or plant products into and within their borders. The transportation of plants from one place to another is an important way that serious plant pests are spread. Some of our most devastating insects and plant diseases have been introduced into the U.S., or spread to uninfested areas within the U.S., by humans moving plants and associated plant material. While most agricultural laws and plant quarantines regulate the movement of outdoor plants, like trees and shrubs, some prohibit the movement of plants we often grow indoors.

Did you know that:

Citrus plants, such as miniature oranges, lemons, limes, and others cannot be transported from West Virginia to Florida or California without a special permit, because of quarantines designed to protect the citrus industry in those states from plant pests.

Houseplants are regulated by law in the states of Delaware, Florida and Georgia and must be inspected and certified "pest free" before they can be transported there from West Virginia, and other states.

Many states have regulations that prevent the introduction of, or require special treatment of, "soil" because insects and plant disease organisms can hide in the soil in which plants grow.

Japanese beetle larvae (grubs) live in soil. The Japanese beetle was introduced into the eastern U.S. shortly after the turn of the 20th Century and eventually made its way into West Virginia (in 1932 the first Japanese beetle was collected in West Virginia). Today, many western states have quarantines that prohibit the movement of plants accompanied with soil from West Virginia and other eastern states, because of the potential of introducing Japanese beetle larvae.

Before you move a plant from West Virginia to another state contact the West Virginia Department of Agriculture (WVDA) to see if there are any regulations that would prevent such an action.

For more information visit the West Virginia Department of Agriculture website at: www.wvagriculture.org or telephone Plant Industries Division at (304) 558-2212.