Plants for low light

Cast Iron Plant *(Aspidistra)*
Corn Plant, Dragon Tree *(Dracaena)*
Kentia Palm *(Howea)*
Parlor Palm, Neanthe Bella *(Chamaedorea)*
Peace Lily *(Spathiphyllum)*
Philodendron *(Philodendron)*
Pothos, Devil's Ivy *(Epipremnum)*
Snake Plant *(Sansevieria)*

Plants for medium light

African Violet *(Saintpaulia)*
Amaryllis (*Hippeastrum*)
Azalea (*Rhododendron*)
Boston Fern (*Nephrolepis*)
Bromeliad
Chinese Evergreen (*Aglaonema)*
Dumb Cane *(Dieffenbachia)*
English Ivy *(Hedera)*
False Aralia *(Dizygotheca)*
Grape Ivy *(Cissus*)
Peperomia *(Peperomia*)
Prayer Plant *(Maranta)*
Rex Begonia *(Begonia)*
Schefflera *(Brassaia)*
Spider Plant *(Chlorophytum)*
Swedish Ivy (*Plectranthus*)
Weeping Fig (*Ficus)*

Plants for high light

Cacti
Citrus plants
Croton *(Codiaeum)*
Jade Plant *(Crassula)*
Kalanchoe *(Kalanchoe)*
Norfolk Island Pine *(Araucaria)*
Poinsettia *(Euphorbia)*
Ponytail Palm *(Beaucarnea)*
Rubber Plant *(Ficus)*
Unguentine Plant, Aloe *(Aloe)*

For more information

Horticultural information on selection, planting, cultural practices, and environmental quality is available from your local Iowa State University Extension office and from these Web sites:

ISU Extension Distribution Center—
www.extension.iastate.edu/store

ISU Horticulture—
www.yardandgarden.extension.iastate.edu

Reiman Gardens—
www.reimangardens.iastate.edu

If you want to learn more about horticulture through training and volunteer work, ask your ISU Extension office for information about the ISU Extension Master Gardener program.

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REIMAN GARDENS
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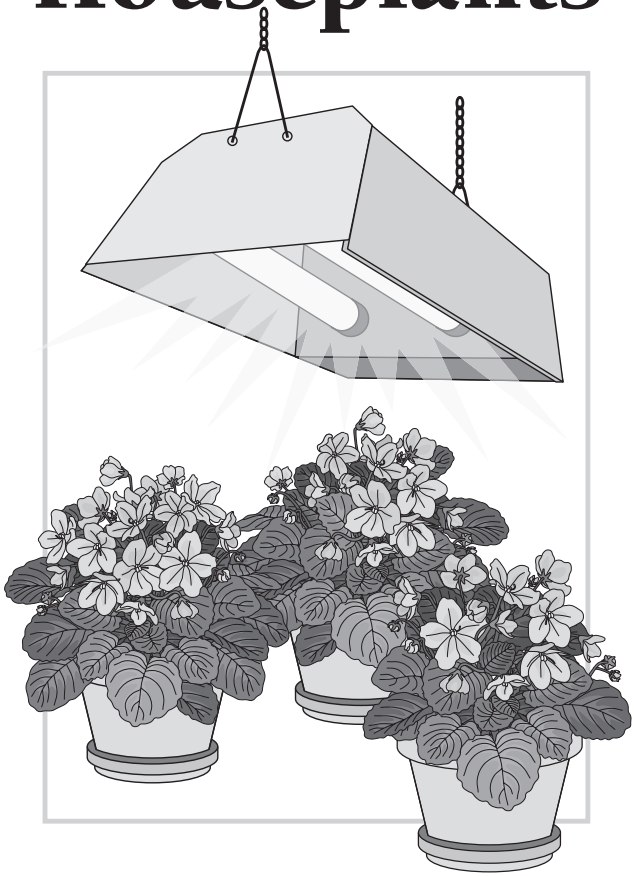
Lighting & Houseplants



IOWA STATE UNIVERSITY
University Extension

One of the most overlooked and often neglected aspects of growing plants indoors is lighting. The result is often poor plant health with thin, sparse foliage. Plants that are properly sited exhibit healthy growth and beautiful blooms.

Importance of lighting

Plants use light to convert carbon dioxide and water into sugars they need to live and grow. Without sufficient light, plants cannot photsynthesisize and instead use stored food reserves to maintain growth. If these stored reserves are depleted, the plant will decline and may eventually die.

Light quality

Quality of light, or wavelength, is an important aspect of photosynthesis and growth. Plants do not use all wavelengths of light equally. In fact, the two colors they use most effectively for photosynthesis—red and blue—are usually deficient in household lights. Incandescent lights emit mainly yellow and some red hues which are of little use to the plant. Fluorescent lights are better, emitting a range of blues, but they sometimes lack the necessary red wavelengths.

Because the sun provides all wavelengths of light, houseplants often perform best when placed near a sunny window.

Light intensity

Light intensity, or the amount of light a plant receives, is equally important to plant growth. Too much or too little light for certain plant species can cause injury.

Indoor light intensity can be described as high, medium, and low. These distinctions are crucial in determining a proper location for indoor plants.

Differences in light intensity and quality are noticeable from different windows. Southern-facing windows generally offer full, direct sunlight and are great for high light plants. Eastern and western windows are considered to have medium light and are good for most houseplants. There is a slight difference between the two, however, with a west-facing window having slightly more intense light than an east-facing window. A north-facing window is considered to have low light because little direct sunlight is available from this direction. Sufficient bright, natural light is available for some houseplants.

Overhangs, porches, and other outdoor obstructions reduce the light levels indoors. For instance, the sun from a south window may be blocked in the afternoon by a porch or overhang. Notice how the light hits a certain spot throughout the day and plan accordingly.

Artificial lighting

Some plants, such as African violets, can be successfully grown for long periods under fluorescent lights. Designated grow lights or a combination of cool and warm white fluorescent lights can simulate low to moderate light.

For best performance, lights should be within four to six inches of plant tops. Fluorescent lights have little affect on plant growth if they are more than one foot away from the foliage.

Lights should be left on for 12 to 16 hours per day for most houseplants. Replace bulbs on a yearly basis; the quality and quantity of light emitted decreases over time.

How to tell if lighting is a problem for plants

Houseplants placed in the "wrong" lighting situation often show one or more of the following symptoms:

- A stretched or "leggy" appearance
- Dead or dying older foliage
- Lighter than normal leaves
- Increased incidence of pest or disease
- Abnormal leaf size

Other factors, such as watering practices, also can cause these symptoms. If plants are performing poorly in one location, try moving them to another location with more or less light for a few weeks. Avoid compensating with additional fertilizer as this can increase the problem.

Knowing the plant

Knowing the cultural needs of specific plants will increase your chances of selecting plants that will survive, and even thrive, in the desired home or office spaces.

Plant tags provide basic information. Additional background research can be done on the Internet or at the library before shopping. Another source of information is the publication *Indoor Plants* (PM 713) available from Iowa State University Extension Distribution Center (www.extension.iastate.edu/store.)