



This water-cooled lamp is radiating virtually no heat into the indoor grow room above. A small electric pump is submerged in a reservoir, and pumps water through a glass enclosure around the bulb, carrying away the heat. You can touch the glass and feel that it is barely warm.



This barrel full of water shows that plants will grow only as fast as their most limiting factor. Light is most often the factor that limits growth indoors.

Air	20%
Temperature	
Humidity	
CO ₂ and O ₂ content	
Light	20%
Spectrum (color)	
Intensity	
Photoperiod (hours of light per day)	
Water	20%
Temperature	
pH	
EC	
Oxygen content	
Nutrients	20%
Composition	
Purity	
Growing Medium	20%
Air content	
Moisture content	

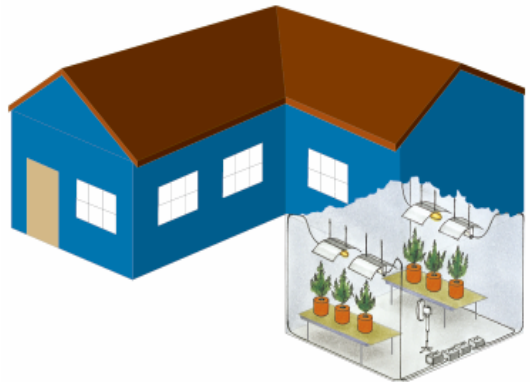
Introduction

The best location for an indoor garden is in an obscure corner of a basement, where the temperature is easy to keep constant year round. Basements are well insulated by concrete walls and soil. A basement room can be enclosed and out of the way.

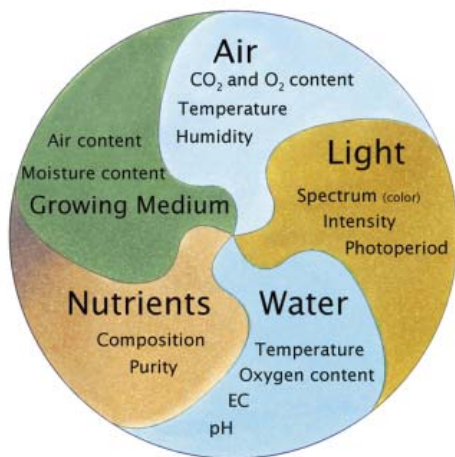
Outbuildings, garages, and barns not attached to homes can be some of the worst places for indoor gardens.

Although less common, there are even indoor gardens on wheels! Some innovative gardeners have remodeled trailer houses and buses into indoor gardens.

The indoor garden's size determines the size and the number of lamps. High intensity discharge (HID) lamps that work well to grow warm-season annuals are available in wattages of 150, 175, 250, 400, 600, 1000, and 1100. Smaller wattages from 150–400, work well in closets or spaces with 9–21 square feet (0.8–2 m²) of floor space. Use 600-watt and larger bulbs for larger areas.



This cutaway basement garden shows a real scenario. Plants on tables stay warmer and are easy to maintain.



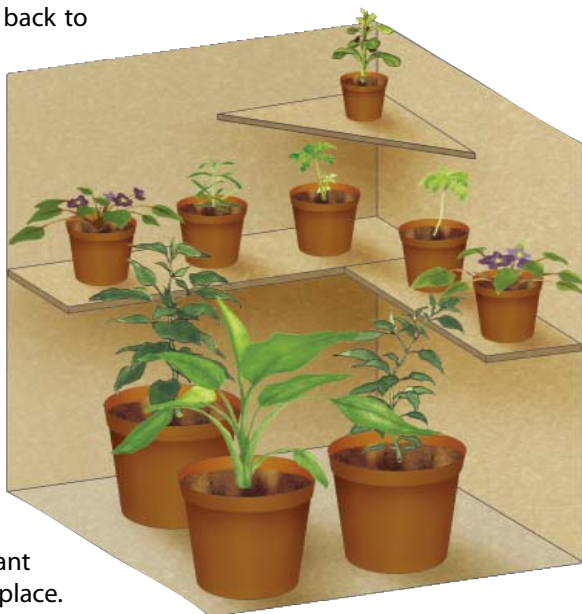
This indoor setup has a big flowering room, a vegetative room, and a cutting chamber.

The drawings show several indoor garden floor plans. As the floor plans demonstrate, there are several basic approaches to indoor garden design and production. Most gardeners start out with a crop grown in a single room. After they harvest the crop, they introduce a new batch of cuttings, switch the photoperiod back to 18 hours, and the cycle continues.

The most productive setups utilize two rooms. The first room is for vegetative growth, and rooting cuttings. This room should be about one-quarter the size of the flowering room. When the flowering room crop is harvested, plants from the vegetative room are moved into the flowering room.

Super productivity is achieved with a perpetual crop. Several cuttings are taken every day or every week. Every day a few plants are harvested. For every plant harvested, a new cutting takes its place.

The productive indoor garden shown below is located in a closed-off corner of the basement.



Take a little time to set up your indoor garden so all the space is used efficiently.



This closet garden has everything necessary to grow a crop—lights, fans, and plants! A 400-watt HID lights the 3 × 4-foot (90 × 120 cm) flowering room above, and two 55-watt CFLs in one reflector illuminate cuttings in this perpetual harvest setup.

