

Tips for Choosing Grow Lights



Seedlings will do best when grown under quality, energy-efficient, full-spectrum light that's evenly distributed over the growing area. (photo: Beret Halverson)

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With the lengthening daylight and the many seed catalogs arriving in your mailbox, it's hard to ignore the promise of spring.

Are you planning to grow your own vegetable and flower transplants this year? You may find that shopping for grow lights for indoor gardening can be mind boggling.

When navigating the numerous options in lighting products, you may encounter confusing terminology. Don't let this intimidate you. When choosing a grow light system for your indoor garden, you only need to understand a few basic principles.

Once seeds have germinated and the first "true leaves" emerge, light begins to play a vital role in the growth and health of seedlings. Outdoors, plants get energy from sunlight to produce their own food, a process known as photosynthesis.

Successful indoor gardening depends on grow lights that closely imitate sunlight to trigger photosynthesis without generating too much heat. Your seedlings will thrive under a quality, energy-efficient, full-spectrum light that's evenly distributed over your growing area.

To identify a quality full-spectrum light, look at the Correlated Color Temperature (CCT) and Color Rendering Index (CRI) information on the product label.

CCT, measured in Kelvins (K), describes the color of the light source in terms of warm (yellows) and cool (blues) colors. Natural light has a CCT rating of 6500K, so a light bulb with a rating near 6500K is ideal for grow lights.

CRI is used to evaluate how well the light compares to visible sunlight. The maximum CRI rating of 100 corresponds to the natural light from sunlight. Good full-spectrum lights for indoor gardening have a CRI rating above 85, but the closer to 100, the better.

Be sure to buy enough fixtures to evenly distribute the light over the entire area. For seedlings along the perimeter to thrive, they should receive the same amount of light as those in the center.

Plants require a certain amount of light, so the distance between plants and grow lights makes a difference. That distance depends on the strength of the light generated by the light source

(incandescent, fluorescent or LED).

It is important to purchase adjustable light fixtures so you can change the height above your seedlings as they grow. If you see browning on leaves and leaf edges, it may indicate that your lights are too close to the plants. On the other hand, if your seedlings are lanky, your lights may be too high.

For optimal results, follow the height recommendations provided by the light manufacturer.

Your seedlings will need 16 to 18 hours of light a day at 65 to 75 degrees Fahrenheit. You can find inexpensive, programmable timers at most hardware stores. Plants require periods of darkness, so don't keep the lights on continuously.

Also, your seedlings may suffer if exposed to high amounts of heat, so it's important to select light bulbs that do not dissipate too much heat.

Fluorescent grow lights--T5s with high CCT and CRI ratings--have proven suitable for growing seedlings. However, T5 HO (High Output) lights give off heat that could damage your seedlings. Hanging a small, inexpensive thermometer at canopy level will help to monitor the temperature.

Although pricier, LED grow lights have better CCT and CRI ratings, are more energy efficient and more durable than other lighting technologies. They are worth considering.

Good lighting is indispensable to growing your seedlings indoors. With a little homework, you can start your gardening season with a bang!

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