



## How to Grow Vegetables With Grow Lights

Growing vegetables indoors is a good idea if you live in a climate that is not conducive to gardening outdoors, or if you want to get your vegetables started before you transplant them to your outdoor garden. It is important to create an atmosphere that is similar to the natural outdoor environment where vegetables grow best. You will need to keep them hydrated and give them light. There are several different grow lights on the market which can help you provide the necessary light to your vegetables. Grow vegetables with grow lights by selecting a lighting system that will provide the right color, intensity and duration of light to your vegetable plants.

### Steps

- 1 Shop around for grow lights.** Look at selections in your local gardening center, or in major retailers such as Home Depot, Lowe's or Sears.
- 2 Look for lights that will provide all the colors found in natural sunlight.** Photosynthesis requires red and blue light to regulate vegetative growth.
- 3 Set up your grow lights the same way you would set up a lamp.** Position the lights on a solid, even surface above the plants you want to grow.
  - Follow any specific set up instructions that come with the model you buy. There should be information in the packaging or on the box.
- 4 Make sure the intensity of the light is strong.** Vegetable plants do best outdoors in direct sunlight, so create a similar environment with your grow lights.
  - Keep your vegetable plants no more than 10 to 12 inches (25.4 to 30.5 cm) away from the grow lights.
- 5 Give your vegetable plants at least 14 to 18 hours of direct light every day.**
  - Turn the lights off for 6 to 10 hours every day. Vegetable plants do need a period of darkness to mature and trigger production.
- 6 Choose the right bulbs for your vegetable plants.**
  - Consider full-spectrum fluorescent bulbs.<sup>[1]</sup> These bulbs will provide warm and cool (red and blue) light which mimics natural solar light. These lights are great to get seedlings started and will provide intense, direct light for your vegetable plants.
  - Use high intensity discharge lamps for energy efficiency and extra intensity. These grow lights are used by commercial growers and emit twice the amount of light for the same amount of energy. They are also more expensive.
- 7 Rotate your vegetable plants under the grow lights every week.** The light is more intense in the center of the bulb, so it will help your plants grow evenly.
- 8 Inspect the bulbs in your grow lights every 4 to 6 weeks.**
  - Wipe off any dust or dirt that accumulates. Dirty bulbs do not give off as much light as they should.
  - Replace fluorescent bulbs that begin to darken on the ends. This means the bulb is aging and not producing as

much light as it should.

**9 Harvest your vegetables the way you would with an outdoor garden.** Pick them off the plant when they are ready to be eaten.

**10 Transplant your vegetable plants to your outdoor garden when the conditions are good.**

- Wait until you have some foliage or flowering on your plants if you began growing them from seeds with grow lights.

### Tips

- Pay attention to new technologies that are emerging in the field of indoor gardening and grow lights. Scientists are studying plasma light technology and light emitting diodes as potential ways to successfully and efficiently grow plants indoors.
- Remember to keep your plants watered while you grow them under grow lights. Keep the soil moist but not soaked.

### Warnings

- Do not put your vegetable plants too close to the light. While they love direct, intense sunlight, you do not want to burn them. Hold your hand over the foliage. If you feel warmth, the light is probably too close.

### Things You'll Need

- Plants or seedlings
- Grow lights

### Sources and Citations

- <http://www.gardeners.com/Gardening-Under-Lights/5080,default,pg.html>
- 1. <http://www.aliveberry.com/2013/05/ultimate-guide-growing-vegetables-indoors/>

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