

## **GROWING MICROGREENS IN GREENHOUSES**

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Self-cultivation of microgreens at home is a new fashion among chefs and fans of healthy eating. But are tiny sprouts of microgreens so useful, as we are persistently told from the pages of glossy magazines and from TV screens? As microgreens today, a number of familiar vegetable crops are grown - broccoli, basil, arugula, peas, cilantro, coriander and others.

The fashion for such sprouts - a cross between freshly sprouted grains and adult plants - allegedly appeared in the 80s in Southern California with its love of healthy fresh food, and then, without exaggeration, captured the whole world, migrating from expensive restaurants to ordinary apartments and houses. Due to the high content of nutrients, such food is considered very promising, and its consumption is steadily growing. Why are ordinary sprouts so useful?

The fact is that a very young tops concentrate a lot of nutrients (minerals, organic acids, vitamins, biologically active compounds) necessary for a plant during this period for active growth and cell division. The plant "cares" about its future, and a person can use this concentrate in their own interests - after all, all these substances benefit our body as well.

What substances, important for humans, does this microgreen contain in large quantities? According to numerous scientific studies, in young seedlings there was surprisingly a lot of vegetable protein, chlorophyll, vitamins (especially C, B, K, E), carotenoid pigments, mineral compounds (potassium, calcium, phosphorus, magnesium, iron, iodine, sulfur), essential oils.

Growing your own vegetables and microgreens can be hugely beneficial for your health, the environment, and your bank account. It has become increasingly popular in the last few years as they have been used more widely in the kitchen, both for their taste and the health benefits they offer. You can grow them on a small scale inside your home or go bigger and invest in larger crops using a greenhouse.

How to grow microgreens in a greenhouse? Growing microgreens requires first building or buying a greenhouse and obtaining seeds. Then, choose the variety of microgreens you want, set up automated watering and create an optimal climate in your greenhouse for your greens.

Before you buy or build a greenhouse there are a number of things you should consider. First, you will also want to research if you need a building permit to build a greenhouse in the area you are looking to set up. Depending on where you live, you may need to consult the city before building any new infrastructure.

Next, the location of your greenhouse is going to be critical in the success of your plants. You are not going to want to put a greenhouse in a spot that is constantly shaded, because then if you plant greens that need sunlight to thrive. Remember, it's easier to

provide shade than create sun. You can buy shade cloths if you build your greenhouse in an area that is in full sun.

When you are planting your seeds, you're going to want to make sure your seed coverage is good as they need support while growing. If your seed coverage is ample, you will see your microgreens grow thick and healthy. Once the seeds are laid, press them down into your soil softly. Be sure they are wedged into the soil without being buried.

The soil you use is not going to be hugely important in the growing process. You can use any high-quality potting soil; however, many growers have seen increased success using soils that are fortified with natural ingredients. A common ingredient that may aid in the growth of your microgreens is soil fortified with kelp.

If you accidentally bury your seeds you will have sprouts growing with soil on their leaves which may be challenging to wash off of the sprouts once you're going to eat them. Keeping in mind the temperature and humidity the microgreens will want to grow in, the process of watering your greens is also critical for growth.

When you first plant, you can lightly sprinkle some water over the top of the soil to give it a little bit of moisture. Top watering is ok until the seeds germinate, at which point it is important that you switch over to bottom watering. You can do this by putting the tray of soil that you planted in on top of a tray of water.

Leave the tray to soak for about 20 minutes before checking how much the soil was able to absorb and pour the water out. If the soil has absorbed enough water, it should look and feel moist to the touch and also be evenly watered. Ensure there are no dry patches in the soil after watering.

By switching over to bottom watering, you are allowing the roots to soak up what they need and avoid overwatering or damage to the sprouts. If you overwater you also run the risk of causing diseases that can affect the plant due to overly wet conditions.

Diseases such as gray mold and damping off are possible to form in microgreens from overwatering and are generally then exacerbated by a lack of air circulation. This highlights the importance of having a good watering system and proper ventilation in your greenhouse.

As previously mentioned, most of the time your crops will be ready for harvest in about two weeks after you've planted them. A good indicator is that the microgreens have produced a second set of leaves which as referred to as their "true leaves".

For some farmers, especially those aiming to make a profit, they will allow certain trays to grow for an additional week. These results in a product called baby greens which are also going to be a profitable and popular product to sell to consumers at farmers' markets.

There are a variety of different kinds of microgreens, making them appealing to most people. Some of the most common types include broccoli, radish, mustard, arugula, cilantro, sunflower etc.

Since there are so many microgreens you can grow, there is likely at least one variation that someone will be drawn to, both for taste and health benefit. Microgreens are high in vitamin C, vitamin E, vitamin K, lutein, and beta-carotene.

These nutrients are beneficial for the health of our eyes, skin, and can protect the body against cancerous cells. This is one of the reasons microgreens have become increasingly popular and more and more people are working to implement them into their diets.

If you are ready to try your luck with growing microgreens, you may be able to cut back on your grocery store cost and make a side profit on selling the excess microgreens you grow. If you've already started on your farming journey and have a greenhouse, you can jump straight to buying your seeds and growing your crops.

## **References**

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