

Germinating Seeds in Hydroponic Systems

Contributed by Katherine Keleher
Wednesday, 08 November 2006

Germinating seeds hydroponically has several advantages over using soil. Many common diseases can be avoided because the hydroponic medium is clean while soil may contain fungus or insects that can harm vulnerable seedlings. Root rot can also be avoided by using a good hydroponic growing system.

Germinating seeds hydroponically has several advantages over using soil. Many common diseases can be avoided because the hydroponic medium is clean while soil may contain fungus or insects that can harm vulnerable seedlings. Root rot can also be avoided by using a good hydroponic growing system.

The area where hydroponic growing really shines over using soil is control of the growing environment. With hydroponics, the gardener is no longer at the mercy of the soil's nutrient or water content. Every aspect of the plant's growing conditions can be controlled by the grower, not Mother Nature. This can be a tremendous advantage for young seedlings because they will get the proper nutrients right from the start of their life, leading to much healthier plants in the long run.

Choosing a Growing Medium for Germinating Seeds

While germinating, seeds require both oxygen and water to sprout. This means that your growing medium must provide sufficient amounts of both to the seed or it will not germinate. Porous mediums such as perlite, rockwool, or vermiculite will do this along with having great drainage capabilities. Rockwool cubes can be used for quick set up and easy transplanting as the seeds sprout and grow into full-size plants. Simply place a larger cube around the cube holding the plant. The roots will expand and grow through both rockwool cubes, allowing your medium to easily adapt to the size of your plant.

Perlite makes another good growing medium for germinating seeds because its porosity allows for good drainage and oxygen availability. Just be sure to use the gardening-grade perlite rocks and not the finer grade masonry-quality powder. Plant your seeds about a half to one full inch deep in the perlite medium and cover them with a thin layer of perlite. The easiest way to set up a seedling tray with perlite is to use a plastic tub or similar container covered in black plastic to ensure that no light will penetrate to the roots of your plants. Add a drain hole about an inch from the container's bottom to cycle your nutrient solution through while keeping a minimum level of solution available to the plants at all times.

Nutrients for Germinating Seeds

Many seeds contain nutrients within their shell to provide initial nourishment to jumpstart the germination process. However, this is not true for all species. Orchid seeds, for example, contain very little nutrients, so be sure to research your particular plant before setting up your garden. To avoid stressing the seed at a vulnerable point, it is best to use a medium that is pre-prepared with a low concentration of nutrients. The first few initial waterings will give your seeds a small dose of nutrients until it is ready to absorb more. After a few days, switch to a regular nutrient solution in your

water, but keep it at a lower dose than normal until the seed shows significant growth. Once the plants have developed strong, healthy stalks, you can change them over to your normal feeding and watering program and use your seedling tray for the next batch of germinating seeds.

About The Author

Katherine Keleher

This article courtesy of

<http://www.indoor-gardening-guide.com>, your best indoor gardening resource on the Net.