

Starting from Seed

By Karen Stauderman

Growing plants from seed often appears to be the easiest task in the garden. However, it actually can be challenging if you are not familiar with the task. The first rule in starting seeds is to obtain healthy, viable seed. Purchase good seed from a reliable dealer. In some crops, seed can be gathered from your own garden. However, Florida gardens are often infected with disease. That is why commercial growers are outside our state.

Seeds also deteriorate with age. Purchase only the seed you need for one year's use. Any leftover seed needs to be stored in a cool, dry place in tightly sealed containers or in Zip-lock-type bag in the refrigerator.

Seed varieties of vegetables, for instance, are tested for Florida. They work the best. Look for resistance to pests and tolerance to our weather conditions. Seeds are treated with chemicals (fungicides) to reduce early seedling death. It is a good idea to wear gloves when planting and keep out of the reach of children.

Small seeds are planted in shallow and fairly close together. But later seedlings must be thinned to prevent crowding. As a rule, small seeds are sown $\frac{1}{4}$ inch deep, Medium, such as cucumber, about $\frac{3}{4}$ inch deep. Seed must absorb water germinate. Once a root and/or a stem appear, a continuous supply of moisture is needed. The Ideal temperature varies with seeds, generally, 65°F to 75°F is best for most plants.

Light plays a role in germination. Some varieties need it and others don't. Check the seed packet for the optimum conditions for particular plants. Light requiring seeds are sown on the surface of the soil.

Seeds should be started in sterile, finely textured, well aerated and loose soil. Make sure that it is free of weeds, disease, and nematodes. More importantly it should hold water. A great combination includes fine pine bark, peat moss and Perlite in equal parts. Commercial soil mixes are ideas as long as you water in a dilute fertilizer solution soon after germination begins.

Fill the container with growing medium $\frac{3}{4}$ inch from the top with moistened, growing medium. Layer with fine vermiculite over the top to $\frac{1}{2}$ inch deep. For medium and large seeds, space them 1-2 inches apart and cover with soil to a depth of 2-4 times the diameter of the seed. Extremely fine seed is dusted on the surface and misted to keep moist. Gently pat the surface to give a smooth, flat surface.

The seeds must be moist during germination. However, excessive moisture leads to seeding and insect diseases. After you see a green leaf emerge, place the seed tray in high light or a south-facing window. Fluorescent light bulbs will work if you lack windows. Place plants 6 inches from the fluorescent tubes and elevate the bulbs as the seedlings grow. Set the timer to provide 16 hours of light daily.

As the seedlings grow, gently remove them from the tray and move them to larger containers when the first true leaves appear (2-3 weeks after seeding). DO NOT keep them in the flat too long. Keep them away from direct heat. Continue to water and fertilize. Slowly decrease the temperature, humidity and water. This is an important process that 'hardens' the seedlings. DO NOT put the tender plants outdoors on windy days or when temperatures dip below 45°F. This process will slow the plant growth but will allow it to harden so as to be able to withstand the outdoor temperatures. After 2-3 weeks, they will be ready to plant outdoors. By following these guidelines, you can grow plants cheaper and have unique cultivars that may not be widely available through garden centers.