Growing Begonia Cuttings

How to Grow Begonias from Leaf and Stem Cuttings

Agriculture Academy
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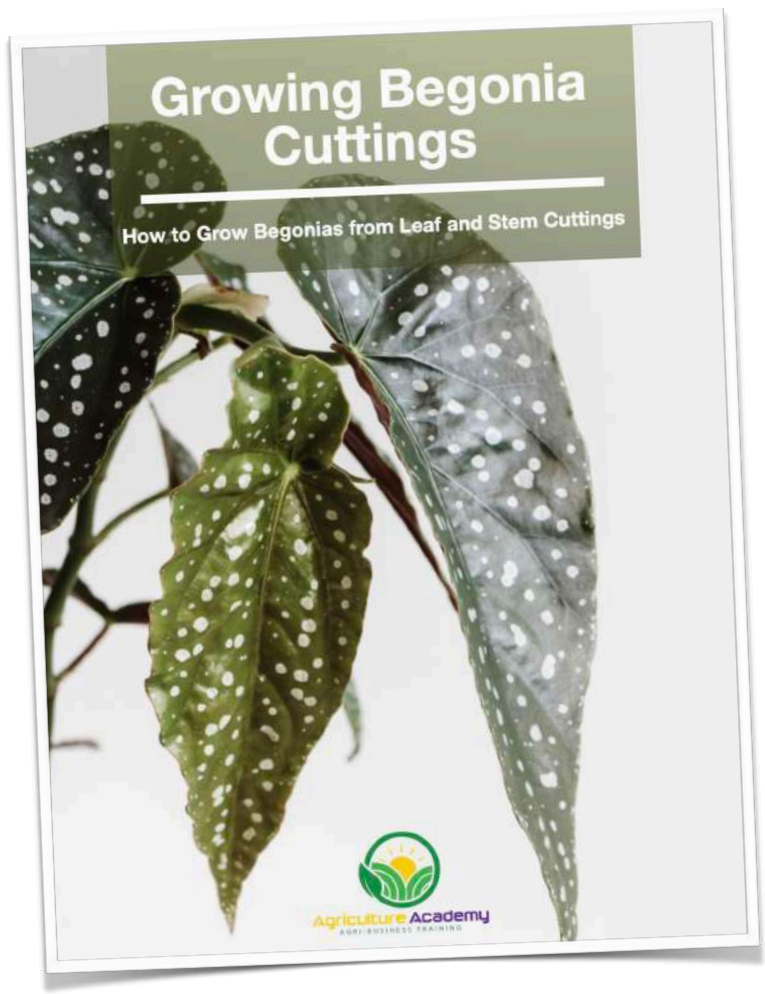
Thank you for downloading this guide!

Did you know that you can regrow an entirely new begonia plant from just a single leaf? The begonia is a propagators dream, as you can regrow new plants from almost every part of the original plant. In a previous guide, we showed you the method to grow thousands of begonia seedlings by harvesting your own seed pods. In this eBook we are going to show you the easy steps to follow so you can go from a single healthy leaf to a new plant regrowing from the veins. On top of this, we are also going to take a look at how you can use stem cuttings to multiply your begonia stock.

Let's get started!



How to propagate begonias from leaf cuttings

When regrowing begonias from leaf cuttings, new plants develop from tissues within the plant known as secondary meristems. These tissues develop from cells when the leaf is injured as we cut into it.

To propagate new plants from leaf cuttings you will need:

· A healthy mother plant with lots of leaves. It is best to harvest as many leaves as possible to guarantee your chances of success.

· Flats filled with a high quality, fine propagating mix. Our mix was made up of coir, perlite and vermiculite. You can wet the medium before you make your cuttings.

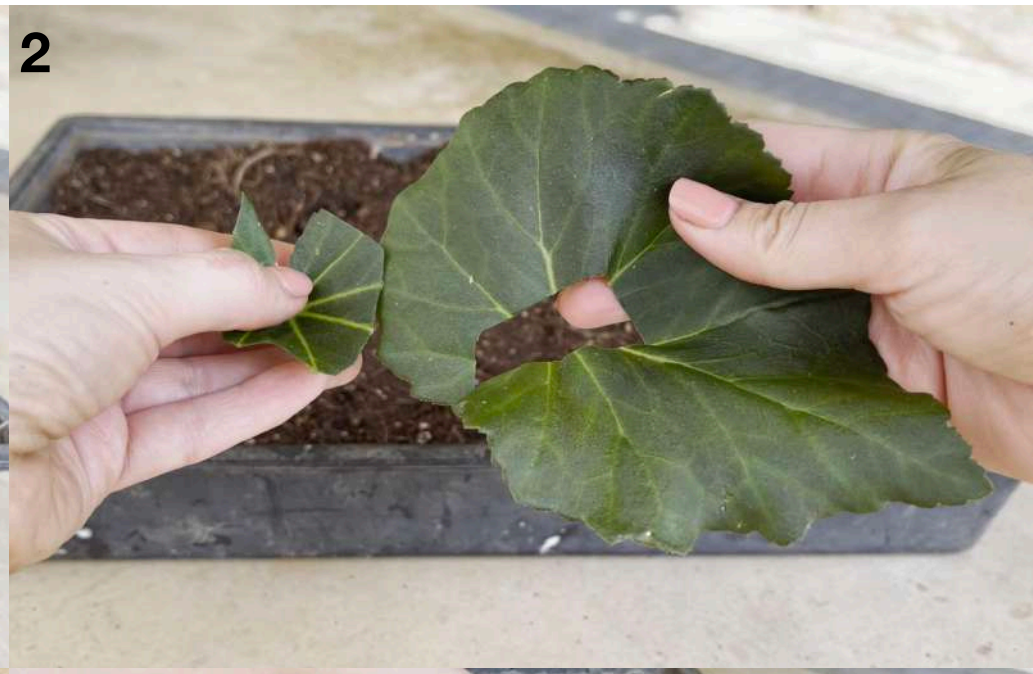
· Scissors or a sharp knife.

· A recycled soda bottle with a fine nozzle attachment.

· Some plant hormones to promote rapid root and shoot development. This is an optional addition.

There are a variety of techniques you can use to make begonia leaf cuttings. One such method can be done as follows: To start taking your cuttings, remove an entire leaf with a portion of the stem remaining attached. Using your scissors, cut around the perimeter of the leaf (1, 2). Both of these pieces can be used to regrow new plants. Take the outer edge piece and lie it flat on the surface of the propagating mix (3). Gather some propagating medium around the edges to keep the leaf lying flat against the surface.

You can use the inner edge piece as a leaf cutting too, but this method is technically known as leaf-petiole cuttings as some of the stem, or petiole, remains attached to the leaf (4).



The major difference between these two methods lies in how the new plantlets will develop. With the first method using the outer leaf piece, new plantlets will grow from the cut veins in the leaf. With the second method using the leaf-petiole method, plantlets will instead grow from the portion of the stem planted in the growing medium.


5


6

In a modification of the first leaf cutting method, you can cut into the veins deeper along the leaf. Make sure you first turn your leaf upside down, make small cuts into the veins, and them lie them flat on the surface with the right side facing up (5). The leaves have the potential to grow new plants from the wounds in the veins.

In yet another variation of the leaf cutting method, you can simply cut up the leaf into triangular pieces and lie these flat on the growing medium (6,7). Make sure the pieces lie flat by scooping some medium over the edges.

Keeping your medium constantly moist is essential if new plants are to develop. The easiest way of achieving this is by placing your flats into a water bath in shallow containers. The water will move into the medium through capillary action, and as long as there is enough water in the container, the medium will be kept moist constantly. If you use this method and keep the lid of the container on, keep the cuttings out of direct sunlight to prevent leaf burn and cutting failure.

How new plants develop

After 6 weeks, this is what the leaf cuttings look like. These little masses are called callus tissue (8), and these are a good sign that new roots are about to emerge. In some of the more advanced cuttings, small roots are starting to grow (9). These are called adventitious roots, which will then form branch roots. The branch roots will continue to grow for a few weeks before adventitious buds start to form. These little adventitious buds will ultimately grow into the shoots of the new plant. So it is clear that while the leaf provides the necessary metabolites for new plantlet growth, it will not itself become a part of the new plant. Once the new plantlets have put on enough growth and the original leaf piece starts to shrivel up, you can remove the new plantlet and repot it into its own container.

Top Tip – Use plant hormones

As we mentioned earlier, you can also get yourself some plant hormones. While these are optional, they can be used to promote new root and shoot growth. These compounds contain plant growth regulators known as auxins, which allow the cuttings to grow new roots and shoots faster than normal. For leaf cuttings, you can use a liquid auxin and spray your cuttings before you finish up.

How to propagate begonias from stem cuttings

New begonia plants can also be grown from stem cuttings. To take your stem cuttings, use sharp scissors to remove stems that have at least 2 nodes. You can find the nodes along the stem by looking for the places where the leaves grow out of. Make your cuttings about 5-7cm long and remove all large pieces of leaf (10). You must also remove any flower buds. Dip the cut ends into powdered rooting hormone and stick the cuttings into the propagating medium. Give the cuttings a good soak. You can keep

the same container and water bath set up as we discussed for the leaf cuttings.

Root growth and repotting

Using stem cuttings to propagate new plants is by far the fastest method to grow begonias. Because the stem already has a shoot, or leaf system, it only has to grow a new root system. New leaves will develop from the original stem piece. So, if patience is not one of your virtues consider using the stem cutting method if you want to propagate begonias. Once enough roots have grown to bind the propagating medium, transplant the cuttings to their own containers (11). You should also consider applying fertiliser at this stage to encourage optimum root and leaf growth.