

There are three basic types of begonia propagation, stem cuttings, leaf cuttings, and division.

Propagation involves taking portions of a begonia plant and rooting them to grow into new plants. Some types of propagation require more skill than others do or more specialized conditions. Everyone should be able to propagate begonias without too much difficulty. The following pages contain descriptions and illustrations of the various types of propagation. Nearly all begonias can be started from stem or tip cuttings. Rexes, rhizomatous, tuberous, and a few other types can be started from leaf cuttings or portions of leaves. All begonias can be divided except for some tuberous begonias.

Rooting Mediums and containers

The simplest medium to root cuttings in is water. Nearly all the types of cuttings will root in water, except for leaf section cuttings that require sterile conditions. The best containers for rooting in water are small baby food jars. Whatever container you use should be relatively. The reason for using a small container is that cuttings release a rooting hormone in the water as they root. The least amount of water, the more concentrated the hormone. You can put several cuttings per container. Once roots are half an inch long, they can be potted up in regular potting mix and grown on. Forget any myths you've heard about water roots, the cuttings will transplant just fine.

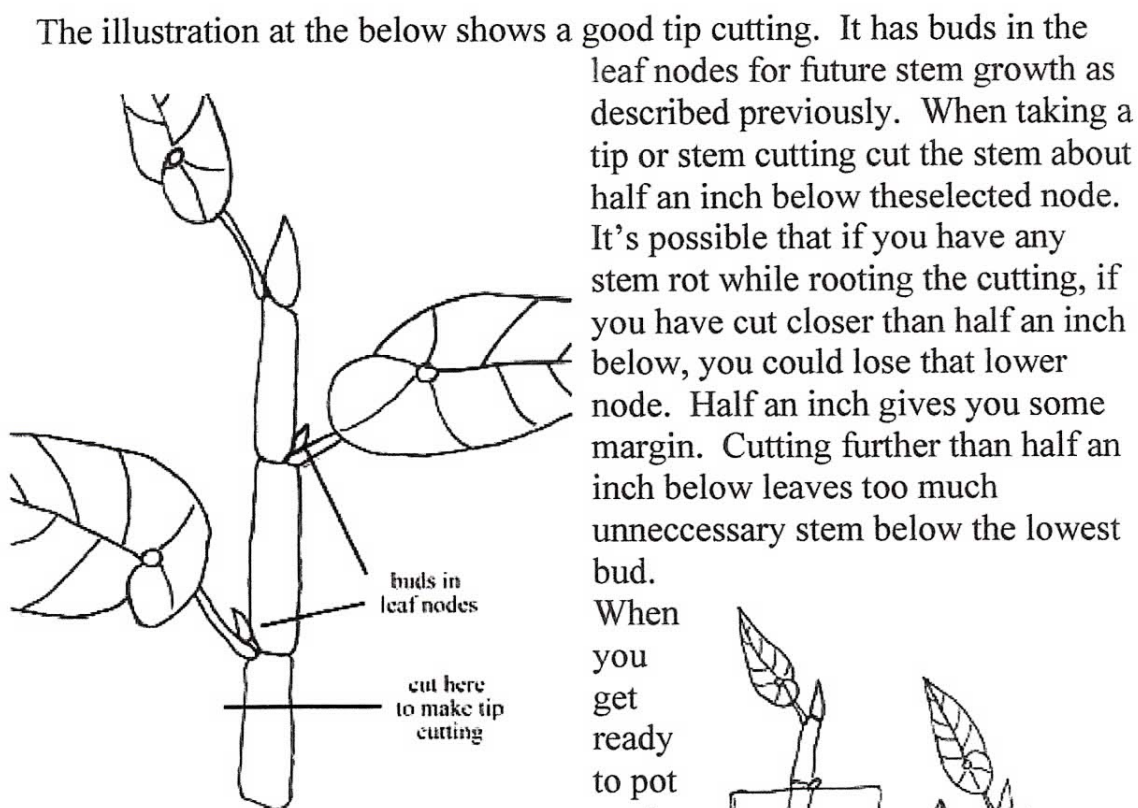
Other common mediums for rooting cuttings are perlite and vermiculite or a combination of both. These mediums can be used for cuttings including ones needing sterile conditions. Perlite and vermiculite are rock/mineral products so contain no organic matter that can harbor disease or promote rotting. When using these products, you're basically still rooting in water. They act as little rock sponges to hold water for the cutting to root in. They also contain air pockets. Perlite and vermiculite don't require sterilization to use, although you do need to use distilled or sterile water to keep it sterile. Vermiculite is less commonly used now, I believe it was determined to contain asbestos. When using either product, you should wear a mask or avoid breathing in the dust when mixing or pouring it.

Another medium for rooting is peat moss or various combos of peat moss, perlite, and vermiculite. This works for all types of cuttings but unless sterilized for sure, it may rot cuttings since it contains organic material. It is

2. Rhizomatous (and Rexes): Rhizomatous begonias will form plants from cuttings taken from any part of the plant. The easiest way is to root rhizome cuttings (stem cuttings) taken from the tips. You can also cut long rhizomes into one or two inch long chunks to root. These are best rooted by pressing into moist mix such as a peat moss/perlite mix leaving the top half of the rhizome exposed. Put into a covered container under lights or in a warm shady spot. Rhizomatous begonias can also be started from leaf cuttings or even pieces of leaves. Smaller leaves or cut down larger leaves can be rooted in water. Leave two or so inches of stem on each leaf and put in small jars of water to root. When you see small plantlets start to form or at least some roots they can be potted into mix to continue growing. Bury the roots about half an inch to an inch deep whether little plantlets have started to form or not and within two or three weeks little plantlets will push up around the leaf. Don't worry about burying the little plantlets but make sure to use a soilless mix such as a peat/perlite mix or they will rot and will have to reform. They can be separated later and put into regular mix or they can be left together to make a larger plant faster. The leaf cuttings can also be rooted directly into peat or perlite in a covered container. Rhizomatous leaves can also be cut into triangular wedges with a vein in the center and rooted in peat or perlite. These will take a little longer to root but will produce more plants per leaf. Whenever rooting in an enclosed container make sure not to overwet the mix and make sure everything is as sterile as possible. (refer to growing seed articles for how to sterilize your containers).

3. Trailing: Trailing begonias can be rooted exactly like the cane or shrub begonias but wait until after blooming if you want blooms on your plants since they are seasonal bloomers as a general rule. They make better plants if after rooting you put 3 cuttings into each pot to grow on and pinch the tips to make them branch.

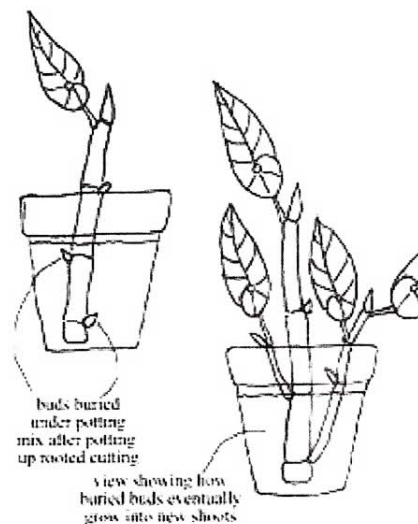
4. Tuberous: Tuberous begonias can be rooted either like canes and shrubs or like rhizomatous. They will grow from leaves. Make sure to start cuttings early because they have to have enough time to form a new bulb before they go dormant in the fall. You can try rooting them under lights later in the year and growing them through the winter indoors. This will work with some varieties. Semi tuberous do not have to form a bulb and don't go dormant so you don't have to worry about starting them so early. These are usually only started from stem cuttings because they have so many stems that leaf cuttings aren't necessary.



The illustration at the below shows a good tip cutting. It has buds in the leaf nodes for future stem growth as described previously. When taking a tip or stem cutting cut the stem about half an inch below the selected node. It's possible that if you have any stem rot while rooting the cutting, if you have cut closer than half an inch below, you could lose that lower node. Half an inch gives you some margin. Cutting further than half an inch below leaves too much unnecessary stem below the lowest bud.

When you get ready to pot up the cutting after it

roots, it will be hard to get that lowest bud buried in the pottin mix if too much extra stem is left below it. When rooting the cutting, you should remove any leaves from the lower nodes first, since those parts will be buried eventually anyway can could rot.



In the illustration below right you can see how to pot up the newly rooted cutting. Put the cutting as low in the pot as possible covering at least one good bud. In the illustration, you can see the importance for doing this. The buried buds will eventually grow into new shoots and all the future basal growth. Without a buried bud, the cutting will of course still root and grow. It won't be able to send up new basal growth however. It will only be able to branch somewhere above the pot.