

Peyote (*Lophophora williamsii*)

For many years people have been aware of the psychoactive effects of the Peyote. The use of the peyote for medicinal and religious reasons has been known by natives in Mexico for thousands of years. The Peyote is a button shaped cactus that normally grows to 10-13 cm in diameter. The Peyote is one of the slowest growing cacti around but if properly cultivated it can be grown much faster at home than in the wild.



Lophophora williamsii in pot with several pups

Instructions:

For cultivating Peyotes make sure you collect the following necessities:

- Grow container with lid
- Potting Soil (50%)
- Coarse Sand (20%)
- Gravel (20%)
- Perlite (10%)
- Peyote Seeds (*Lophophora williamsii*)

The first step in growing your own Peyote is to make small drainage holes in the container where you will be growing in. This is necessary because over-watering can cause rotting of the roots of your cactus.

The next step is to mix together the soil with the sand, perlite and gravel. First divide the gravel in half and put one half on the bottom of the growing container so it's just covered. It's a good idea to first sterilize the mixture, as there might live some bacteria that will eat the mixture's useful minerals too. To do this use an oven at 80-100 °C for about an hour (make sure you use an oven proof dish and not the growing container, this will melt) or you can use the microwave at a low setting for about 30 minutes.

Now when mixed together you can make it moist. A good way to determine if the soil is moist enough is to squeeze it in your hand. If there is no water emerging from the soil yet it is perfect, if it's a bit too moist, just add some more soil, so don't put it all together at once. Once it's perfect you can fill the container with this mixture.

Seeding

We are now ready to start the seeding. The seeds should be put on the soil and can be pressed very gently into the ground with a pencil. Make sure they are not too deep, about 1.5 – 2 times their height is ideal. Now spray a couple of times with water over the soil and close the lid on the box.

Temperature

The best temperature for the germination of Peyote seeds is a temperature between 20 to 30 °C, ideally around 23 °C. To acquire such a temperature you could place it next to a heater or use an electric blanket to keep them warm. Always be careful when placing the growbox directly on a heater because it may dry out and your seeds will not germinate. Some people use a heating element for

an aquarium or terrarium to acquire the perfect temperature. Of course this is not necessary but it will improve and speed up the process of germination.

Humidity

While germinating the Peyote seeds, it's best to keep the humidity high. In this period the soil should also be kept moist. After a while the cacti are mature enough to get used to a very dry environment. To let the young cacti adapt from their humid environment to dry conditions, we start to make holes in the lid of the container to slowly bring down the humidity in the growbox. After a few weeks you can completely remove the lid, but still keep the soil moist for about two months.

Lighting.

While your Peyote seeds are germinating it is important to not put the container in contact with full sunlight. Use fluorescent tube lighting or compact fluorescent lighting (CLS) for 16-18 hours a day. When the cacti are a bit stronger and older (2-3 months) you can slowly let them get used to the indirect sunlight. If they are around 1 year old they can be placed in direct sunlight.

After this we can start treating the cacti like adult species and give them less and less water. Make sure that the soil completely dries out before watering the cacti, to simulate dry growing conditions.

If the cacti are about one year old (or 1 cm in diameter) you can start thinking about repotting them. Always keep in mind that a bigger pot is not always better. Try to get a pot that has about the 3-4 times the diameter and 4-5 times height of the cactus. Changing pots will give you the opportunity to give the cactus more nutrients in the new soil. Providing Peyote with a deep pot gives it the opportunity to grow a healthy tap root.

Taking care of your Peyotes

Cacti are used to dry conditions and therefore should never be given too much water. The best time to water the Peyote cactus is in spring and you can keep watering them until autumn. When it is really hot you should water them more often.

In winter you should never water much, especially when kept outdoors, because the cold combined with the water will damage the Peyote. Only give a little water in the winter to prevent the cactus from completely drying out.

Peyote cacti are growing actively in the period from spring to fall. In this period they need the most water and nutrients. For nutrients use special cactus nutrients and always be very careful no give them too much. Good cactus nutrition is always low in nitrogen and high in potassium and Phosphor. These are indicated by numbers at the label of the bottle in a NPK value. A good NPK value for cacti would be 4-7-7 or even 2-7-7.

A good way to water the Peyote is to “bottom” water. Just put them in the sink with a small amount of water for a few minutes. The “bottom” watering method will assure strong roots because the roots have to reach out for the water. Although this is a good way to water them, it’s also possible to occasionally water them from above.

We hope you enjoy growing your own Peyote cactus. If you want to know more about cactus cultivation there are some interesting books available in several (online) shops :

Cultivation and propagation of cacti by Trout

Peyote and other psychoactive cacti by Adam Gottlieb

The Peyote Book by Guy Mount