

Growing Nepenthes Pitcher Plants

Nepenthes are tropical pitcher plants native to parts of South East Asia, India, Madagascar and Australia. Most are vines, but some remain compact in habit. The common name, "Monkey Cups," comes from monkeys occasionally drinking the fluid in the pitchers.



The pitcher is actually a swelling of the mid-vein in the leaf. Insects are attracted to this because of nectar secretions and coloration. The slippery rim and inner walls of the pitcher encourage insects to fall into the digestive fluid at the bottom of the trap. Nutrients are absorbed from this "soup."

If you grow Orchids in a greenhouse, then Nepenthes should thrive with the orchids, needing similar conditions.

Sun: Nepenthes generally like bright light without much direct sun. About 50% sun or dappled shade is good. Plant lights often work well if they are broad spectrum and are kept just far enough away to prevent overheating or scorching. Thin, spindly plants or poor coloration are a sign of too weak a light. Sun burn

usually appears as red or dead zones on the upper most growth, facing the sun or light.

Water: Do not allow Nepenthes to dry out completely. They benefit from moist media and occasional flooding to wash away any accumulated salts. Use relatively clean water such as rain, distilled or purified water. Tap water can be used in many localities if the water is low in salts. Low level chlorine does not seem to be a problem.

Humidity: While Nepenthes often tolerate low humidity, they usually stop making pitchers. Humid environments such as greenhouses, terrariums or even tents made from sticks and clear plastic bags can provide the needed humidity. Be sure to provide some ventilation to prevent overheating and stagnant air. Many people put their plants outdoors during warm, humid weather. Some shade must be provided and bring the plant(s) indoors before temperatures drop below 50°F.

Temperature: Most types thrive at temperatures between 55-95°F. Highland species such as *N. burbidgeae*, *N. lowii*, *N. rajah*, *N. villosa* and others prefer cool nights near 55-60 and days around 70-85°F. *N. fusca* and *N. sanguinea* prefer cooler, but tolerate warmer culture. The lowland types are more tolerant of warmer conditions and usually are easier to grow. This group includes: *N. alata*, *N. eymae* (*infundibuliformis*, *eymai*), *N. khasiana*, *N. mirabilis*, *N. ventricosa*, *N. ampullaria*, *N. bicalcarata*, *N. gracilis*, *N. maxima* and many others. Most of the available hybrids are also in this category. *N. x 'Dyeriana'*, *N. x 'Chelsonii'*, *N. x 'Williamsii'*, *N. x 'Ventrata'*, *N. x 'Superba'* and other hybrids are usually the easiest to grow and have been selected for colorful pitchers.

Planting Mixes: There are many porous, low-fertility mixes that work. These contain tree fern fiber, chopped fir bark, long fiber sphagnum moss, peat moss and perlite. The media should be well drained and open enough so air reaches the roots. Combinations of the above ingredients also work well. Repot if the media breaks down, the plant dries out too quickly, or plant size indicates a bigger pot is needed. Do not use clay pots as salts tend to build up in them. *Nepenthes* roots are typically blackish and fine. Vibrating the container is a good way to settle the media around the roots; pushing the media down can damage these fine roots. Water well after repotting; this will also help settle the mix around the roots. We do not recommend fertilizers added to media.

Feeding: If you are growing the plant where it cannot catch insects for long periods, you can add an occasional small insect such as a fly, a cockroach or a few very small insects to mature pitchers. This is not normally needed. Many types benefit from 1/8 teaspoon of Miracid™ fertilizer per quart of water, this solution should be added **only to the pitchers** until they are 3/4 filled.

General: After situating the plant where it is to grow, add a little water to the pitchers, about 1/2-3/4 inch. In shipping or transporting, the fluid normally present gets dumped out and sometimes these pitchers will dry out and die. Refilling helps combat this. Pitchers and leaves die naturally as the plant grows and these should be trimmed off for best culture. Since many *Nepenthes* are vines, we suggest pruning the green stems back to encourage side shoots and a fuller plant. The vines can also be trained up a stake or left to hang low in an elevated container such as a hanging basket. Allowing the vines to descend often encourages the plant to put up new basal shoots, resulting in a prettier plant. It is best not to prune more than 30% of the foliage off the plant at any one time. If the plant fails to make pitchers, increase humidity. Some growers mist their plants with pure water but we do not advise this as it can encourage leaf spotting or diseases. Adding air to the water can help growth by reducing the chance of stagnation. Simply put the water in a clean tightly-covered container, half-filled, and shake it vigorously to aerate it before watering. Avoid dripping cold water on the leaves. *Nepenthes* can live for many years with proper care.