

Tropiflora's Cultivation of Ant Plants

Hydnophytum, Myrmecodia, Lecanopteris and related.

It almost boggles the mind to think about how some plants have adapted to a mutually beneficial life with ants. While many plants benefit from some form of relationship with ants, true myrmecophytes have gone so far as to make physical adaptations to accommodate and facilitate a reciprocal symbiotic relationship. Many plant families including bromeliads, orchids, ferns, and others including some trees have developed a special interaction with ants. Many ant plants have specially adapted hollow cavities within stems, leaves or thorns which provide shelter, while others secrete food for their ant colonists. The ants provide security, chasing away or eating invaders, while in many cases providing food by way of waste materials. Some ant plants have unique stomata while others form adventitious roots within the hollow chambers to absorb these nutrients. Interestingly, the guardian ants will not tolerate even the presence of a pollinator, so most myrmecophilous species have adapted a cleistogamous (self seeding) habit, thus eliminating the need for pollinators altogether.

Don't want ants in your collection? Don't worry, in cultivation the very specialized ant species are naturally absent, and these plants adapt well to normal 'antless' cultivation in the manner of bromeliads and orchids, and thrive with little special care.

Most ant plants are native to the tropical forests of S.E. Asia and the Indo Pacific. Though there may be some short dry seasons, most species inhabit areas of heavy rainfall. Most are warm to slightly cool growers, rarely cold growers. The few cold growing species are from higher altitude cloud forests and do not do well in cultivation under 'normal' conditions and are therefore seldom cultivated. As a rule of thumb, the conditions we recommend for ant plant culture parallel those that favor the cultivation of *Vandaceous* orchids. that is; warmth, moisture, abundant feeding and bright, filtered light.

Cultivation

No doubt there are many ways to cultivate ant plant species and of course it depends a bit on which ones you are trying to grow as to what method you may choose. *Hydnophytums* and *Myrmecodias* are curious epiphytic, caudiciform members of the family *Rubiaceae*, which includes coffee and gardenias. For the most commonly cultivated species of *Hydnophytums* and *Myrmecodias*, we recommend growing them in a good grade of sphagnum moss for the substrate and in slatted baskets (like *Vanda* baskets) or mounted on a plaque. Excellent drainage is important as is good air circulation around the roots, so we therefore do not recommend pots without slits or planting directly in the ground, such as the substrate in a terrarium.

Ant plants roots are thick and brittle. Care should be used when repotting. Normally we grow in *Vanda* baskets, and when they outgrow one, we simply drop that one in a larger size, fasten it in with wire and then fill the voids with more sphagnum moss. Mounting to cork or wood can be done using a bed of moss with the plant tied down with fishing line, crossing the root ball, but not the body of the plant. This method is best for the ant ferns such as *Lecanopteris*, simply tie sections of the stems down snugly with line to the substrate. They will eventually root into the substrate and onto the mount itself.

Maintenance

Keep your ant plants warm, above 50 degrees Fahrenheit (10 Celsius). Too hot is usually not a problem, but 90F/32C would be a good rule of thumb. Watering should be done when the substrate first begins to look or feel dry. Do not let the ant plants dry out completely. Leaf drop is a symptom of too little water. It's hard to over water an ant plant in a basket or on a mount. Fertilize with a balanced fertilizer or with a formula suitable for orchids. We use a 20-10-20 NPK formula Peters soluble feed at 50 ppm with each watering, leaching weekly. If you do not do a constant feed, follow label rates. A well fed plant will have green leaves. Yellowing is a sign of too little fertilizer or too little water. Bright light, short of full sun, is best. Very bright light may also cause some leaf yellowing, but this is normal. Good air circulation will help prevent cultural problems such as rot and insects pests. Scale insects and mealy bugs are the most common pests. If you notice a rotten spot on the caudex, you can excise it and it will heal over with time.

Tropiflora, LLC

3530 Tallevast Road, Sarasota, Florida 34243

Phone: (941) 351-2267 Fax: (941) 351-6985 Email: sales@tropiflora.com Website: www.tropiflora.com

This copyrighted material may not be reproduced for any purpose beyond personal use without express written permission

by an agent of *Tropiflora, LLC*. All rights reserved. © 2009 *Tropiflora, LLC*