

# FACT SHEET...BROMELIADS

Bromeliads, namely *Ananas comosus*, or commonly known as the Pineapple, were discovered by Christopher Columbus in the late 15<sup>th</sup> Century on the Island of Guadeloupe, in the West Indies; almost all Bromeliads are native to South America. Pineapples were subsequently cultivated in Europe in the 1600's but it was about 150 years later before other Species were known and from here cultivation began.

Bromeliads belong to the plant family Bromeliaceae, which encompasses over 3000 species plus thousands of hybrids. In nature most bromeliads grow on trees as epiphytes or air plants and are remarkably hardy plants that can survive tough, even arid, conditions and neglect.

All bromeliads are composed of a spiral arrangement of leaves sometimes called a "rosette". The number of degrees between successive leaves varies from species to species with a few having a 180 degree separation between leaves. This causes the plant to grow in a flattened configuration with its leaves lined up in a single plane. The bases of the leaves in the rosette may overlap tightly to form a water reservoir. This central cup also collects whatever leaf litter and insects happen to land in it.

Different Species of bromeliads require different amounts of light, water and humidity. All bromeliads share a common characteristic: tiny scales on their leaves called trichomes. These scales serve as a very efficient absorption system. In species found in desert regions where the air is hot and dry and the sun beats down relentlessly, these scales also help the plant to reduce water loss and shield the plants from the solar radiation.

## POTTING

Are best grown in a porous, slightly acid to neutral PH mixture that most often contains a substantial proportion of fine Pine Bark ( approx 1 to 2 cms), which in itself is acidic and free draining. It also provides the stability to support the plant or pup that you are potting up and does not become too compact throughout it's life. Generally , the pine bark is mixed with a quality potting mix ( at least 50/50%) and often supplemented with a variety of ingredients, namely coarse sand, peat moss, Vermiculite, Perlite, small pieces of polystyrene, charcoal, coconut fibre or husks & scoria which I find adds weight to the pot and enables it to stay upright in windy conditions. These additive ingredients will vary from grower to grower based on the climatic conditions in which they reside.

An important consideration is NOT to pot the plant/pup too deeply in the mixture as rotting may occur at the base of the plant before it establishes itself. Restrict the size of the pot to a minimum for the item being potted as if the pot is too large over-watering may occur.

## WATERING

Should be watered until the cup overflows and the water runs into the the medium in the pot; this should be done when it becomes touch dry. Keep the central cup filled with water during the hotter months but less important in the colder Winter months as with over watering it may become stagnant and this can cause the plant to rot. Roots of most potted bromeliads should be kept moist, but never allow them to become soggy.

Plants in the garden will require regular watering in the Summer or drier months but in Winter generally the rainfall will suffice. Mounted plants need more frequent watering (every few days when hot and dry) and, in need, can be submerged for short periods of time to ensure they are well watered.

## LIGHT

Bright , diffused light is needed by most bromeliads, particularly the Yellow, Orange & Red foliage varieties, particularly Neoregelias, as this will enhance their colouration and ultimate beauty. Thick leaved plants will generally tolerate the most direct sunlight but softer varieties will not. Generally sunburn, unless extreme, will only disfigure the plant but generally it will survive and produce pups. Lesson to be learned is to "acclimatise in cooler months for next season or move pups to a less intensely sunlit position".

However, most will require good light to flower, but some genera such as Nidulariums will often do so in darker positions. Bromeliads can also be grown Indoors or in artificial light in Terrarium environments.

## TEMPERATURE

Most bromeliads are suitable for Melbourne gardens, but may need protection from the harsh sun and frosts. Also they require good air circulation. I find that many Aechmeas will require extreme protective measures and many growers will place these specimens under shelter, or even inside the home, during the coldest months. How do you know ?...well ask an experienced Bromeliad grower in your area to advise on their knowledge to avoid the cost and heartache of watching a favourite shrivel and die.

Guzmanias, and many other tropical plants, are more cold sensitive and should be treated with EXTREME CARE by inexperienced enthusiasts. Generally, if you wish to purchase them, keep Guzmanias protected or inside in the cold months.

## FEEDING

Bromeliads feed though their leaves . Liquid fertilisers are usually diluted between ¼ and ½ the recommended strength before application. Slow release pellets, such as Osmocote or Nutricote can be added to the mix,. Fertilisers high in Urea should not be used in the colder months.

Do not over-fertilize plants in dark positions as this will result in lanky leaves and poor conformation. Fertilize neoregelias sparingly, if at all, as the best colour is achieved in very good light and minimum supply of fertilizer, leaves become smaller and tighter but colouration greatly improves.

## FLOWERING

Magnificent exotic flowers( these are actually colourful bracts) in a myriad of colours, shapes and sizes, some of which can last up to 6 months. Once your plant has flowered it will not produce new foliage, and commences to slowly die away. Ethelny gas is produced from composting or rotting fruit, so to enhance or trigger the flowering process, the liquid from a rotted apple ( that has been rotted in a sealed bag ) can be poured into the plant and left for 3 to 4 days before being washed away.

## OFFSETS/PUPS

After your bromeliad flowers, it will send up side shoots from the base. These are called pups. Most pups grow from the base of the mother plants. Do not remove pups unless they are at least 1/3 the size of their parent. To remove offsets use a sharp set of secateurs, a serrated knife (especially when the pup is small) or I use a keyhole saw, making sure you get the complete base of the pup. Stolons, which are present on some type of plants, can be removed before potting but can be useful to secure the plant when mounting. Pups are often left to callous before planting. Pups will usually take one to three years to mature depending on the genus.

## MOUNTING

Drift wood, mallee roots, tree fern slabs, rocks & cork are good bases for mounting. Use plastic coated wire, fishing line, staples, or nylon stockings. Be sure that the plant is securely mounted but most plants will eventually root and secure themselves. Water thoroughly at least twice a week .

## PESTS & DISEASES

### Scale

There are several different types of scale, tiny insects, but the most common is Black "Fly-Speck" scale which appears similarly to the namesake fly speck. Also, there is a larger form which shows as a small , say 2mm, bone/brown/yellowish lump on the leaf. Both forms are very contagious so isolate and treat infected specimens. Always inspect before purchasing new plants.

Use Rogor, Malathion, Confidor or Clensel as a spray or submerge the plant into a bath of solution. After dipping, invert the plant to ensure that excess is not allowed to remain in the cup. Repeat , as needed.

White Oil & Copper Fungicides are a "NO NO".....toxic to bromeliads.

### Mealy Bugs

Also these are minute insects that are white coloured and fluffy in appearance that move slowly along the leaves. Treat, as above.

### Aphids

Treat, as above.

### Mosquitoes

If a problem occurs, flush the Cup to interrupt the breeding cycle.

### Vase/Collar Rot

This rooting of the cup can present a problem where the plant is overwatered and lacks good ventilation; generally is more prevalent in the colder months. Where there is evidence of rot commencing remove the affected leaves and treat with a fungicide. I try to keep the plant drier until it shows signs of recovery.

Probably the biggest Pest of all can be the inexperienced grower who can successfully "KILL THEM WITH KINDNESS", especially overwatering.

## HANDY HINTS

1. Avoid removal of pups between Mothers Day and Fathers Day as they may become rotten before forming roots. If you wish to remove pups then ensure that they are kept fairly dry during their initial growth phase.
2. When removing the old or ageing leaves from the base of the Bromeliad it is a great idea to split the leaf laterally and then tear each portion to the left or right to reduce the risk of destroying any tiny pups that are commencing to form under this leaf.
3. If you notice the leaves on your Bromeliads starting to roll up on themselves laterally it is generally a good indication that the plant is needing water. In need, don't be afraid to submerge the entire plant in clean fresh water until the foliage appears normal again. Possibly, a good idea is to bare root the "Victim" to simplify the process and avoid dirt etc. covering the foliage.