Collectors Corner Fact Sheet

BROMELIADS

Bromeliads belong to the plant family Bromeliaceae, which encompasses over 2000 species plus thousands of hybrids. Bromeliads are native to the Americas, with the exception of *Pitcairnia feliciana* from Guinea (West Africa).

In nature most bromeliads grow on trees as epiphytes or air plants. Their roots are used mainly for support but they are not parasites. Some bromeliads grow on trees or in the ground; others grow on rocks or cliff faces.

Most bromeliads are remarkably hardy plants that can survive a lot of neglect and a wide range of harsh enviroments, some species can be considered very difficult to kill.

Different bromeliads require different amounts of light, water and humidity. Most growers use the generalised cultural requirements based on genera, but there will be exceptions. In cultivation the most commonly found genera are: aechmea, billbergia, dyckia, guzmania, neorgelia, nidularium, tillandsia and vriesea. Many make excellent house plants. Some can live in arid gardens as they come from deserts.

POTTING – For ease of watering in the house, most bromeliads can be potted, as opposed to mounted on wood or other material. However, most grey leaved tillandsias will not do well potted. Bromeliads will grow in almost any medium that drains well, does not pack down, provides stability while the root system develops, and has a slightly acid to neutral pH.

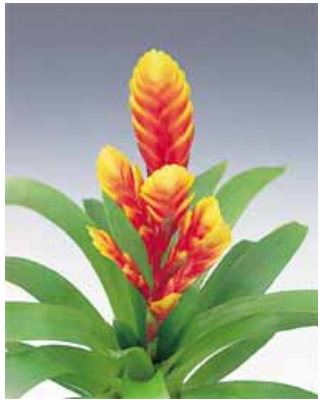
A ready-mix, all purpose orchid mix can be used, or approximately 1/3 small to medium orchid bark is added to a good quality potting mix. The important consideration is that the mix must drain rapidly. Cryptanthus and dyckias grow well in African violet mix. Dyckias and puyas also do well in cactus mix, and cactus fanciers grow dyckias and puyas easily in their collections.

A few good rules to follow are: Don't pot a bromeliad too deeply, only to the base of the leaves. Don't allow the plant to rock back and forth or wiggle, this damages the tender developing roots. Stake the plant if necessary, until the roots are well developed. Use a fast-draining potting mix. Don't use a pot that is too large, as the danger of over watering increases. Use a pot with drainage holes in the bottom or the base of the sides. Always empty the pot saucer!

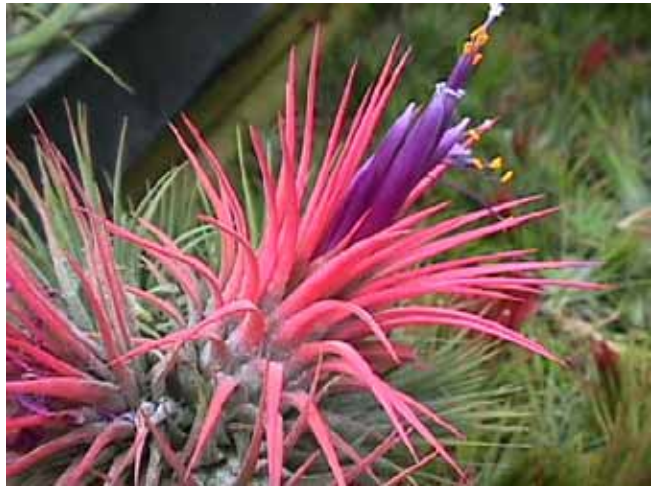
WATERING – Bromeliads should be watered in the cup until it overflows and the water runs into the pot. This should be done when the soil becomes touch dry. When grown inside you may just top up the water in the centre of the plant every 4 to 7 days, then every 2 to 3 weeks take the pots somewhere where you flush the water in the centre until it runs into the pot and out the base. The roots of most potted bromeliads like to be moist, but never soggy. Keep the central cup, if there is one, always filled with water.

Don't allow the water to become stagnant as it can cause the plant to rot. Mist the plant every few days will help indoors if the house is dry. Softer leaved plants generally require more water and humidity than stiff leaved plants. Most vrieseas, guzmanias and nidulariums fall into this category. Plants like Tillandsias hold water in their scales rather than in the water well so make sure they are thoroughly soaked with each watering.

Mounted plants need frequent misting or watering (every 2 to 4 days when hot and dry) and do well with a weekly dousing (run under tap, shake off excess water, and put back in its place), in unheated houses in winter this can be cut back to every 2 to 3 weeks. Outdoors regular watering is required in the dryer months but can be almost stopped in winter.



LIGHT – Bright, diffused light is needed by most bromeliads. It is often difficult to flower bromeliads in low light. However some like nidulariums will often flower in darker positions. Few plants prefer full midday sun. Hard, spiny, thick leaved plants as well as those with grey, grey-green



or silvery leaves will generally tolerate the most light. Soft thin-leaved plants do well in a spot with lowered light intensity, but no bromeliad likes a dark environment. The bright, attractive colours in neoregelias will not be achieved indoors, or a dark position; leaves will also become elongated.

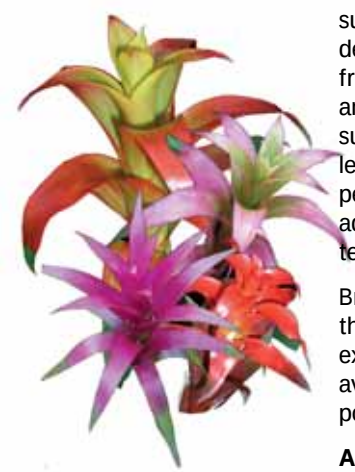
Symptoms of insufficient light are dark green, often soft, drooping leaves, longer than normal, and of poor colour. Symptoms of too much light are yellowed leaves, markings that are faded and bleached out, a leathery, stressed look to the foliage and in extreme cases sunburn spots and holes.

FEEDING – Options vary among growers regarding fertilising. Do not over-fertilize plants in dark positions as this will result in lanky leaves and poor conformation. Most growers 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. It is best to only fertilize between spring and mid-autumn, otherwise plants are prone to distortion (quilling).

Fertilisers are usually used at between ¼ and ½ the recommended strength. Slow release pellets, such as Osmocote or Nutricote can be added to the mix, or most liquid orchid fertilisers can be used with good results. Most orchid fertilisers are suitable for epiphytic bromeliads. Fertilisers high in Urea should not be used in the colder months.

Bromeliads feed thought their leaves and the water well so a complete spray or mist with 1/4 strength fertiliser monthly over the warmer months will improve growth.

TEMPERATURE – There are a wide range of bromeliads



suitable for Melbourne gardens. Most need protection from the harsh mid-day sun and frosts. Tropical plants, such as guzmanias, are least tolerant of low temperatures and can also be adversely affected by high temperatures.

Bromeliads, especially those that are mounted require excellent air circulation, but avoid constantly draughty positions.

ARTIFICIAL LIGHT– Many Bromeliads grow very successfully under artificial lights. Fluorescent tubes are better than incandescent bulbs because a broader spectrum of light rays can be achieved with more intense light and less heat. There are special tubes for plants, or a combination of a warm white and a cool white is very effective. The closer to the tubes, the more light is available.

PESTS & DISEASES – Bromeliads are relatively pest free. If mealy bugs or scale are present use Horticultural Clensel, or Malathion, Folimat, Rogor or Confidor as a spray. If it is a solution, dip the plant into it. Be sure not to leave any insecticide in the cup. The plant should be thoroughly watered the day before treatment. Do not use oil based sprays. Fungus can be controlled by using commercial fungicides which do not contain copper. When using chemicals it is very important to carefully follow the manufacturers' safety instructions.

BLOOMING AND OFFSETTING – What you see as a flower is really a modified leaf, the real flowers are mostly small and often unnoticed. The modified leaf, inflorescence can in some species develop intense colours and these leaves can retain their colour for many months giving the impression that bromeliads can flower many months. Some species can produce a bract that finishes in 2 to 3 weeks where others may take 6 months to produce the bract and 6 months more before it looses colour.

Each rosette/vase of a bromeliad flowers only once in nearly every species. As the process of flowering changes the growing tip into the flower, the plant searches for another leaf axil to initiate its' new growth. (Some bromeliads will also offset before flowering.) This new growth may be close to the base of the flower spike, or at the base of the plant. Occasionally they may offset from the flower spike. The time taken to bloom from seed germination can be anywhere between 3 and 30 years. Plants taken as offsets or pups usually take between 1 and 3 years (especially when given the bonus of not being separated from the mother plant). Some may take longer.

The length of time for flowering differs between species. Some billbergias have an attractive inflorescence for only a couple of weeks, whereas many guzmanias may make an attractive flowering specimen for 3 to 4 months. Usually the attractive part of the long lasting guzmanias is actually the bract which contains the flower, as the flower is finished in a few weeks, but these are largely hidden within the colourful bracts. Flowers may be removed after they dry up, and the bract should be cut as low as possible when it becomes unsightly, unless it contains seed & the seed is required.

Some bromeliads produce seasonal flowers but most are triggered by the environment, often this is when lots of organic material decompose, fruit from trees ripen or smoke from bush fires. The most common trigger is ethelyn gas, this is produced from composting or rotting fruit. In a clean strerile environment like indoors the gases required are not present so broms will require triggering to start the flowering process, there are many ways it could be done. The liquid from a rotted apple rotted in a sealed bag can be poured into the plant and left for 3 to 4 days then washed out. A hole can be made in a compost heap and plant can be sat in this for 2 to 3 days. Flowers will take from 6 weeks to 6 months to appear.

OFFSETS, PUPS After a plant has bloomed it is no longer able to continue to grow from the point from which it flowered. It will continue to grow from another leaf node, either beside the flower spike, or more usually around the base of the plant. (There are some exceptions to this rule in tillandsia and puya where the plants die after flowering, but these plants are not common.)

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, or a serrated knife (especially when the pup is small) 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. Any wound can be treated with a fungicide (sulphur is recommended; copper based products are not) or left to callous before planting. Cryptanthus, orthophytums and some tillandsias have pups further up on the mother plant and their attachment is so fragile that they can be easily plucked off. Always remove any brown leaves before potting a pup and a dip in sulphur to prevent fungus is always a good idea. Offsets will usually mature in one to three years depending on the genus.

MOUNTING - Bromeliads, except for terrestrials, can be mounted to grow as epiphytes (air plants). Many grey leaved tillandsias prefer mounting. Drift wood, mallee roots, tree fern slabs, rocks & cork are good bases for mounting. Always leach salts out of drift wood before mounting plants. Use plastic coated wire, fishing line, staples, and a suitable glue – it is often easier to use elastic products such as nylon stockings, as these have a degree of give, allowing the plant to grow and not work loose. Make sure that the plant is securely mounted. Most plants will eventually secure themselves to the mount. Some tillandsias never develop roots other than as seedlings.

Mounted plants depend on their leaves for moisture and food. Water the entire plant thoroughly at least twice a week and douse them thoroughly weekly. Don't allow water to sit in the leaf axils of fuzzy leaved or grey leaved tillandsias. These usually require a little less water.

Good Growing!

Collectors Corner, Gardenworld
810 Springvale Rd, Braeside 3195
Ph: 9798 5845 Fax: 9706 3339.
Www.collectorscorner.com.au

WEBSITES -

www.fcbs.org has great photos

www.bromeliad.org.au Links to Aussie societies