



Spathoglottis- A beautiful garden orchids

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Spathoglottis commonly known as “ground orchid” is a genus of beautiful tropical, terrestrial orchids with more than 40 species which can be grown as potted plants or can be planted directly in beds and borders as landscape plants. These orchids add considerable quality to the garden when grown in a small cluster and are often planted in beds in tropical Asia or in botanical gardens located in tropical zone.

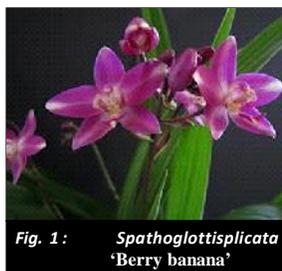


Fig. 1 : *Spathoglottis plicata* 'Berry banana'

The genus is allied to the genus *Calanthe* and *Phaius*. The species are widespread from southern China to the Himalayas, throughout Malaysia, Indonesia, New Guinea, Australia and Pacific Islands.

Botany: The plants bear prominent pseudobulbs giving rise to a few folded leaves. The foliage of these orchids is palm-like or pleated with showy flower spikes producing successive flowers over time. Inflorescences are tall and slender and arise from a basal leaf-axil. Flowers are large and very attractive. Floral colour ranges from brilliant yellow and pure white to crimson and several shades of magenta, purple and mauve. The lip is 3-lobed, with narrow lateral lobes which are oblong and up curved. The end of the lip-blade is more or less widened and sometimes cleft. The column is slender, curved as footless. Some commercially important species of this genus are : *Spathoglottis affinis*, *S. aurea*, *S. ixioides*, *S. plicata*, *S. grandifolia*, *S. hardingiana*, *S. kimballiana*, *S. vieillardii*, etc. Many beautiful commercial hybrids were developed through interspecific and intergeneric crosses. The populainterspecific hybrids are: *Spathoglottis aureo-*

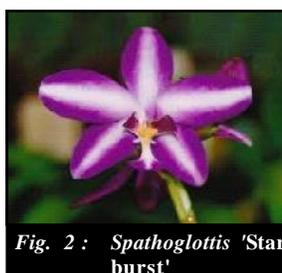


Fig. 2 : *Spathoglottis* 'Star burst'

Vieillardii (*S. aurea* x *S. vieillardii*) and *Spathoglottis wiganae* (*S. kimballiana* x *S. vieillardii*). The genus has also been bred with *Phaius* resulting in the hybrid known as *Spathophaius*

Cultivation : *Spathoglottis* orchids are easy to grow and

make excellent container plants for the summer garden as well as the home. With just a few simple tricks any grower can grow these beautiful orchids that can last for a lifetime. The *Spathoglottis* orchid can be grown anywhere in indoors and also does well in outdoors in warmer climates. As *Spathoglottis* are ground dwelling orchids, plants can tolerate a moist potting mix without harming the roots and flower easily as long as plants get enough light. In warm places, partial shade is ideal to grow these orchids. For better growth and flowering, plants need sunlight for part of the day, well-drained loamy soil and regular water. Even maintaining the plants in full soil in a tropical climate is possible. When the plants are grown in a greenhouse better to place in a spot where ventilation is good as plants don't survive well in stagnant air.

Planting media : *Spathoglottis* require good drainage in the media. Tree bark, perlite, sphagnum moss, bricks and various other components are ideal to grow in pots. If the plant grown in hanging baskets a media based on 75 per cent high quality soilless mix is good for plant growth. For outdoor landscaping media, a mixture of garden soil, dried cow dung and leaf moulds is ideal to grow *Spathoglottis* and addition of broken bricks and charcoal makes the growing medium loose for roots to spread easily. Growers should always keep in mind that the mixture may be very free draining but holds sufficient moisture.

Water : Heavy watering is essential during the growing season but for good growth and flowering the plants should allow to get almost dry before next watering, so after a thorough watering grower may allow the media to dry on top but do not allow the container to completely dry out. Attention should also be given not to allow the plants to sit in water. Water thoroughly in the morning once to twice weekly depending on the climate and growing conditions (light, temperature, humidity, air movement, etc.) and allowing the top of the media to dry slightly between watering will help for profuse blooming. If the potting media is top-dressed with expanded slate, the area next to the pseudobulbs will dry out nice and quickly.

Light : The plant is tolerant of a wide range of light conditions. *Spathoglottis* orchids like indirect sunlight. Direct sunlight scorches the orchid's delicate leaves. If



Fig. 1 : Some promising hybrids of *Spathoglottis*

grown in greenhouses, 750 fc light is enough for the small plants and 2,000 - 5,000 fc is good for landscape or outdoor container growing. When young plants are transitioned to outdoors, the plants should be acclimatized slowly to higher light levels.

Fertilizer : *Spathoglottis* like fairly high feedings of fertilizer with every watering. In outdoors, use of any slow release fertilizer containing equal parts nitrogen, phosphorus and potassium and micronutrients in the 4 - 6 month release formulations gives better growth. Fertilization with diluted fertilizer (one-quarter strength) every two to three weeks interval is also effective. Fertilizers with trace elements of iron and magnesium should not be used as a chemical imbalance may occur that can be harmful to the plants.

Temperature : *Spathoglottis* are generally “warm” growing plants and like temperatures up to the high 40° C and can tolerate temperatures lower than 10°C. Below 16°C the growth rate (and the probability of flowering) goes down. If the temperature falls below 15°C, *Spathoglottis* orchids stop growing and flowering. Below 5°C, plants lose leaves and go dormant. If grown in a tropical climate with high humidity and lots of indirect light that will result in a non-stop show of new growth and flowers. Grower should always keep in mind that more air movement in the growing area may warmer the plants and the higher light levels will be accepted without turning the leaves yellow. If it is too cold and the pot stays too wet, the growth will suffer. Foliage may burn below 14° C – containers which can be protected by moving or covering. Landscape plants can be covered with light weight plastic covers.

Humidity : *Spathoglottis* prefer high level of humidity for better growth. Humidify the air around *Spathoglottis*

orchids is necessary for flowering. Misting plants daily is also effective. Grower can place a humidifier near the orchids to maintain the humidity. A pebble tray filled with water and placed underneath orchid pots also keeps air moist.

Blooming : Blooms typically are produced when the pseudobulbs become mature. If plants don't bloom, the amount of direct sunlight the plants are receiving has to increase. This orchids are intermittent bloomer. If the temperature in growing areas fall below 15° C for extended period, the plant may revert back to growth stage and flowering may be delayed. Cut off the spike or flowering stem just before winter with a sharp knife helps to grow back in the spring. Pruning must be done after the plant has finished blooming for the year. Flower spikes last for almost 6 weeks. If modern hybrids / clones are grown, flowering may be occur throughout the year.

Potting : Clay pots with holes for good air circulation are best to plant the orchid. A loose soil mix may be prepared with a mixture of bark, pebbles or broken bricks, charcoal and the peat soil etc which are easily available and to be filled inside the clay pot followed by watering the media until moistened. *Spathoglottis* orchid plant to be placed in the pot making a small hollow hole and the roots are to be covered with the potting media. To receive morning or afternoon light the pot has to be place outside in an area that receives daily breeze and temperatures ranging from over 30° C degrees during the day time and not less than 15° C degrees at night. Frequent watering of the plant is also needed. It is best to allow the soil to dry out between each watering. Every 5 to 12 days the orchid should be watered enough to moisten the potting media.

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