



*Pescatorea lehmannii*



*Coryanthes alborosea* 'Alba'

## Golden Rules for the window sill cultivation of Orchids

1. Orchids require a high level of humidity and do not like close proximity to central heating radiators with rising air circulation. For this reason it is recommended to place orchids in bowls filled with expanded clay (shale). Ideally there should be water standing in the base of the bowl sufficient to cover approximately half the depth of the expanded clay. In this way the evaporation of moisture takes place in close proximity to the plants which is necessary to simulate the right climatic conditions.
2. Orchid roots have an aversion to standing water. For this reason any drip tray under a plant pot must be free of standing water and it is better not to use a potholder. The best method of watering is to immerse the orchid in water, let the water be absorbed by the soil drain off completely and then allow to dry out before the next immersion/watering.
3. The roots of orchids are very sensitive to salt. By fertilisation using tap water only, apply half the recommended level of orchid fertiliser. When combining the orchid fertiliser with collected rainwater then the full recommended dosage of fertiliser can be used. Orchids can be fertilised in principle by every fourth watering.
4. If salt crusts appear on the substrate or if the substrate is strongly decomposed then the orchids must be re-potted. As a general rule orchids should be re-potted every two to

three years with special orchid substrate available from garden centres or specialised nurseries. Our special tip for those who wish to make the substrate themselves: mix hacked pine cones with moss and dried beech leaves.

5. Orchids do not like to be placed in dark corners, on the other hand they do not like direct strong sunlight. A window sill position facing North East or East is ideal, but care should be taken where plants are placed in locations which receive generally more direct sunlight that the orchids have sufficient shade during summer months.

6. Newcomer orchids such as *Phalaenopsis* and *Paphiopedilum* are acclimatized to temperature levels comfortable to human beings, that means daytime temperatures not exceeding 25 degrees Celsius and at night an average of 15 degrees Celsius.

7. The level of light, temperature and watering should be well matched. Too little light combined with too high temperature damage the plants just as too low temperature and excessive watering.



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HANNOVER

## Orchids

in the Royal Gardens of Herrenhausen



HERRENHAUSEN





*Paphiopedilum glaucophyllum* var. *moquettianum*



*Phalaenopsis violacea*



*Oncidium herrenhusanum*

## A fascinating Family

The orchid plant family is one of the largest and most varied families in the plant world. The fascinating and intricate form of the flowers, their often intense colour and fragrance are examples of evolutionary development and the perfect adaptation to the natural pollination process through animals such as insects or birds. Worldwide there are currently about 26,000 different known species of orchids. In Germany alone there are more than 60 different species. Approximately one third of all species have developed their habitat on the ground; the majority of the remainder however find their habitat in the branches of trees.

## The Orchid Collection of the Royal Gardens

The botanical show garden of Hannover-Herrenhausen, known as 'Berggarten', is home to one of the largest and most prestigious collections of orchids in the world. International orchid specialists consider it to be one of the most important orchid collections in Europe. The collection has not only an extraordinary ability to attract orchid lovers from across the world to see the many rare exhibits but also achieves other very important objectives: such as the cultivation of plants of scientific importance and the propagation of species which are otherwise threatened with extinction in their natural habitat. At the present time the Berggarten is home to about 3,000 different species of orchids, representing more than 10% of the worldwide species, as well as 1,000 hybrid varieties. Orchids grow not only in lush tropical vegetation but also in coo-

ler regions as far north as the Arctic Circle. Ideal cultivation conditions for orchids exist in the greenhouses of the Royal Herrenhausen Gardens. Approximately 25,000 orchids are cultivated over an area of approximately 1,000 sqm. and in seven different climatic zones. Of particular importance to mention is the stock of Stanhopeinae, from which all genera are represented. Similarly almost all species belonging to the genus *Stanhopea* are represented in the collection together with almost 2/3rds of the known the species of *Coryanthes*. Numerous examples of the species of the genera *Masdevallia*, *Dracula*, *Bulbophyllum* and *Restrepia* also form part of this collection as well as half the species of the genera *Catasetum*, *Mormodes* and *Cycnoches*. Of significant scientific value are first and foremost the circa 50 type plants in the Royal Herrenhausen Gardens whose origin is originally and officially documented. Many were documented and scientifically described here for the first time and form the basis for all further systematic botanical research.

The cultivation of orchids in the Royal Herrenhausen Gardens has a long tradition which dates back to the year 1835. In 1858, under the direction of the then court gardener Hermann Wendland, the basis for a methodical orchid collection was set in place. During the Second World War the greater part of the internationally recognised collection was destroyed. Botanists and orchid specialists such as Pfister, Waldvogel, Hubein and Horich, who travelled the world in the name of many botanical gardens in search of rare and interesting botanical species, were principally responsible for the restoration of the orchid collection. Today the scientific supervision of the collection is in the hands of curator Dr. Boris Schlumpberger. Within the Herrenhausen collections several orchid species formerly unknown to

science have been discovered, for example *Sievekingia herrenhusana*, *Stanhopea x herrenhusana*, *Epidendrum herrenhusanum*, *Embreea herrenhusana* and, in 2011, *Oncidium herrenhusanum*. Exhibits from the Royal Herrenhausen Gardens in both national and international exhibitions regularly receive awards and time and again the standard and quality of the orchids are graded as excellent.

## In the Orchid Hothouse

Flowering orchids are displayed in the orchid exhibition house. Throughout the whole year you have the chance to experience the beauty of between 500 to 800 flowering orchids in fascinating colours, variety of form and distinctive fragrances. To ensure the optimal conditions for the plants, the temperature is kept at a constant 22 degrees Celsius and the humidity is maintained at between 60 to 80 per cent.



*Pleurothallis lanceana*