

Floricultura, a world

Floricultura



Just one of the huge glasshouses

ROB BÖCK, GAB VAN WINKEL and TON KLAASSEN visit one of the largest orchid producers and hybridisers in the world

FLORICULTURA IS THE cradle of many of the beautiful orchid hybrids so often seen in homes, hotels and offices. Recently, we had the privilege of visiting this huge company in the Netherlands and interviewing Kees Schoone, director, co-owner and, above all, nurseryman.

A modern business

Floricultura supplies more than 65 million young orchid plants every year to about 400 commercial nurseries in the Netherlands, and many others around the world. The wide range of hybrids they grow consists mainly of *Phalaenopsis*, but

also includes *Miltoniopsis*, *Dendrobium*, *Odontoglossum*, *Oncidium*, *Cattleya*, *Paphiopedilum* and *Cymbidium*. The company has two branches, one in Heemskerk and one in Assendelft, and employs 700 people. In world horticulture terms, it is a giant and has a leading position in the inter-

name in orchids



Right and above right Two new, as yet unnamed harlequin patterned *Phalaenopsis* hybrids being trialled in the glasshouses. They are examples of Floricultura's extensive hybridising programme

national orchid market. Expertise and experience are no longer sufficient to maintain this position, even though Floricultura has gained plenty of both over a period of more than half a century. In addition, they make optimal use of modern technology, scientific developments, marketing

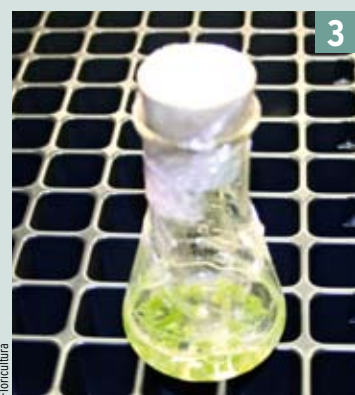
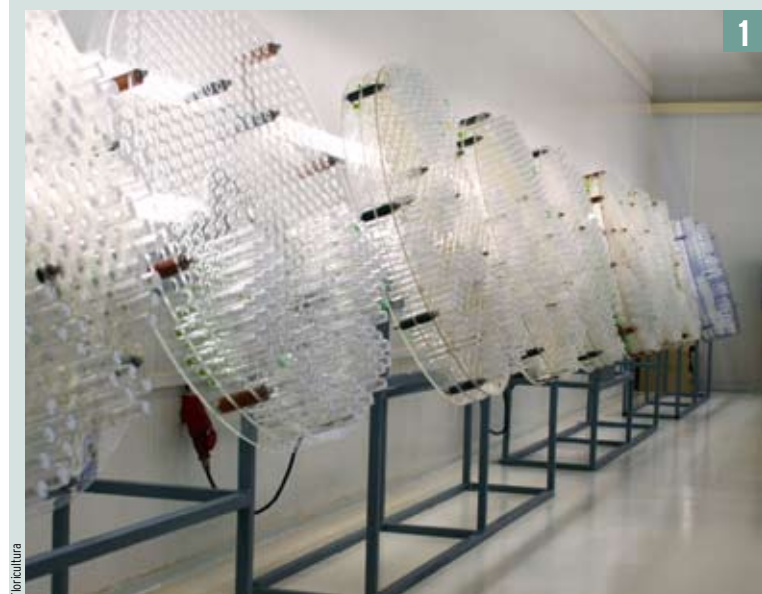


Tom Klässen



Tom Klässen

MERISTEM CULTURE UNDER STERILE LAB CONDITIONS, THE PRODUCTION PROCESS BEGINS



1 A hermetically sealed, sterile room containing one of the many batteries of rotary action shakers in Floricultura's modern laboratories for tissue culture

2 A flask containing meristem tissue immersed in a nutrient-rich liquid

3 Young plantlets obtained from tissue culture

studies and efficient, computerised systems. Critical selection of parent plants, well-equipped, professional laboratories for tissue culture and modern nurseries guarantee top-quality plants.

Research and development are not only focused on biological and technological developments, but also

on trends in the market for pot-plant orchids and orchids as cut flowers.

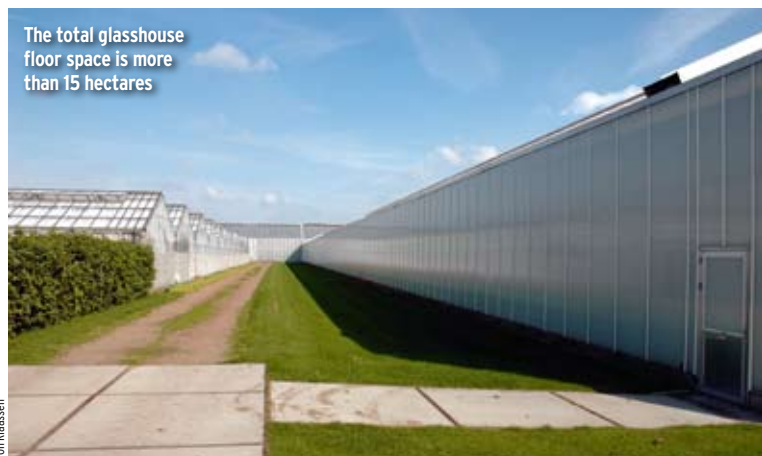
In recent years, they have been a major part of the enormous increase in demand for orchids worldwide and enabled commercial nurseries to meet it. In the Netherlands and many other countries, orchids (*Phalaenopsis*) have been the best-selling pot plants for a

number of years now. Most of these plants were 'born' at Floricultura.

The company has two core businesses: large-scale reproduction of selected, top-quality hybrid orchids for both cut-flower and pot-plant cultivation; and a breeding programme to develop new hybrids. Floricultura regularly issues new catalogues, richly illustrated with photographs of their latest products. For a reasonable fee, they also offer their laboratory facilities to other orchid growers to propagate their selected hybrids by tissue culture.

Our visit

We visited Heemskerk branch and were welcomed by Kees Schoone. It was soon apparent that this young man had not only a great knowledge of orchids but also of modern company management. Well-motivated employees and top quality products are to him at least as important as



The total glasshouse floor space is more than 15 hectares

Ton Klaassen



Tom Klaseen

New hybrids are flowered in-house and selected before being put on the market

A test-batch of new hybrids usually consists of 140 new hybrids, of which eventually 20 to 30 will be put on the market

efficiency and profit. After a most interesting discussion we were shown the gigantic operation. We saw dozens of dedicated people, sitting at long tables, planting orchid plantlets in trays. There the plants will grow until they are big enough to be delivered to commercial nurseries, where they will be put in individual pots and raised to flowering size. A short while later we saw these trays on hundreds of movable tables in huge, high-roofed glasshouses. We saw how they were watered in separate areas, Kees explained, 'This way we keep our glasshouses dry and our plants don't stay wet for too long, which prevents harmful effects on the leaves'. Indeed, the plants were absolutely spotless.

The glasshouse where we stood contained a quarter of a million young

plants, and this was just one section. The total glasshouse floor space is more than 15 hectares. Our visit to the laboratories was restricted to gazing through glass windows as every precaution is taken against possible infection of the plants. The new hybrids start life in large hermetically sealed, sterile rooms, in which rows of rotating machines turn small lumps of meristem-tissue around in food-enriched medium within glass flasks. The baby plants obtained in this way are repotted in transparent plastic boxes, again in a rich medium, in which the plants stay for the first two years of their life. Repotting from flask to box takes place in sterile laminar flow-cabinets, of which no less than 240 are operated in two daily shifts. The plastic boxes containing

the young plants go to enormous climate-controlled rooms where tens of thousands are stacked on shelves lit by special fluorescent lighting. Every box carries a barcode that registers and follows the plants until they are delivered to the customer.

The origins of the company

In 1963, orchid grower Klaas Schoone, Kees' father, proudly took some plants from his nursery at Assendelft to the European orchid exhibition in the Grote Kerk in Amsterdam. There he met Jan Post, an enthusiastic businessman from Heemstede, who had also brought orchids. Both gentlemen intended to show their plants to a large audience, but each had a problem. Jan Post's orchids had suffered badly in transit ➤

MERISTEM CULTURE UNDER STERILE LAB CONDITIONS, THE PRODUCTION PROCESS CONTINUES



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- 1 After two years of growth, the plantlets inside the flasks are ready for the next stage, potting into transparent plastic boxes
- 2 The transplanting process is done with great care in sterile laminar flow-cabinets
- 3 Strict quality control separates the most strongly growing plantlets from the weakest
- 4 In climate-controlled rooms, the boxes of plantlets are exposed to fluorescent light. The light intensity and length of exposure (photoperiod) are controlled by computer
- 5 Once the plants are large enough, they are transplanted into plastic trays
- 6 The trays of young plants are moved to large glasshouses to grow on. They will continue to grow in these trays and once the plants reach a suitable size, the trays will be delivered to commercial nurseries.



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Ton Klassen

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Jon Klaseen

from the cold weather, and the man who was to install Klaas Schoone's stand had not shown up. They decided to help each other. Klaas Schoone gave some of his plants to Jan Post and, in return, used the services of Jan Post's stand-builder. The exhibition was a tremendous success for both men and was the beginning of a co-operation that has now passed on to later generations.

The name, Floricultura, goes back even further in history. As early as 1933, Jan Hendrik Post, Jan's father, had a sales office with that name in Heemstede. Jan Hendrik exported chocolate, whisky and tobacco to countries in South America and always brought orchid plants back from his business trips, for his wife who collected them. He soon discovered that the plants were easy to sell and when even botanic gardens started to place orders with him, Jan Hendrik decided to concentrate on selling orchids, though his wife still always had first choice of the plants.

Around that time grandfather Schoone passed his chrysanthemum nursery in Assendelft on to his son Klaas who immediately started looking for innovation. The peaty soil of Assendelft was not favourable for high quality horticulture so Klaas switched to anthuriums, which could be grown potted in compost. Not long after he too started to grow orchids and in 1970, he gave up the anthuriums.

Klaas was a true entrepreneur, always interested in novelties. He was the first grower in the Netherlands to use computer-driven climate control in glasshouses. He was also the first Dutch nurseryman to visit nurseries in America to see what he could learn.

While other nurseries propagated plants by division and from seed, Floricultura started using meristem-tissue culture. The resulting plants were of perfectly predictable colour and quality and could be produced

in enormous quantities. Computer-controlled conditions in the glasshouses enabled Floricultura to manipulate the flowering times of their plants in accordance with market demand. Today's luxury of having *Phalaenopsis* available in flower all year round is largely the result of Floricultura's efforts.

The future

Kees Schoone is confident of the future. 'Every home deserves an orchid,' is his company's vision and slogan. But also, those who already have an orchid at home are easily tempted to buy another when they see new, ever-more beautiful cultivars. 'The classic white *Phalaenopsis* will also always remain popular,' says Kees.

During our visit we were shown the latest results of Floricultura's hybridising programmes, plants that were not launched to the market yet. 'We test all our new products for growing and flowering performance,' Kees told us. 'A test-batch normally consists of 140 new hybrids, of which eventually 20 to 30 will be put on the market.'

We saw *Phalaenopsis* plants of breathtaking beauty with multiple, branched sprays of flowers in magnificent new colours. Floricultura focuses its products on the Western



Director Kees Schoone with the end product, a tray of *Phalaenopsis*

markets' tastes. The heavily blotched, harlequin *Phalaenopsis* from Taiwan are not as popular in the West as the softer, more refined pastel colours and delicate dot-and-stripe patterns. Floricultura is, however, also developing a truly red *Phalaenopsis*. A 'black' *Phalaenopsis* already exists, but it still has a slight purple-reddish hue, just like the 'black' tulip and the 'black' rose. In the technological field Floricultura is actively working on

energy conservation. 'Zero energy consumption is the current target', Kees tells us, to be followed in the near future by reusing excessive build-up of energy. For this purpose, summer heat in the glasshouses is used to warm up water that is subsequently stored in the earth at a depth of 150m, where it will stay warm enough to be pumped back to the surface when needed on cold days. A first trial installation is already in use at Floricultura. 'Using the heat of the earth itself, from a depth of 2,000m, will be our next project,' Kees says enthusiastically. 'That is if we can obtain the necessary license,' he adds cautiously.

Floricultura is not a grower of rare orchid species. With due respect, they leave that to the specialised nurseries and botanic gardens. Floricultura would never be able to achieve their vision with natural species, but with their beautiful hybrids they have already helped to adorn many living-rooms and offices, and have delighted many people. There is hardly a street these days where you do not see one or more orchids through the windows, and even on television programmes you see orchids in the background. All thanks to Floricultura. ■



L-R Catalogue images of Floricultura's *Phalaenopsis* hybrids, *P. Snowflake*, *P. Pinnacle*, and *P. Irene's Fire*

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TON KLAASSEN is an orchid grower and photographer, and has been co-Editor of *Orchideeën* for 30 years. He often lectures at orchid societies in the Netherlands and Belgium