



> Anthurinfo

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V a r i e t i e s

Small-flowered Phalaenopsis

Anthura's Phalaenopsis range is in full swing. The Phalaenopsis range is constantly changing due to the introduction of new varieties where old varieties are partly replaced by new and improved ones.

This is also the case for the range of Anthura's small flowered Phalaenopsis. Initially, the range was limited to three varieties; Anthura Gold, Anthura Venice and Anthura Manchester, but now a range of varieties can be supplied in different colours all year round. Important innovations are Anthura Melbourne, Anthura Rome and Anthura Verona. Anthura Melbourne is characterised by its high two and three spike percentage and its eye-catching leaf markings. The Anthura Rome and Anthura Verona varieties are a beautiful addition to Anthura Gold with their light yellow and speckled flowers.

The new Anthura Athens, Anthura Buenos Aires, Anthura Paramaribo and Anthura Tokyo varieties will also become available

during the year on a smaller scale. Anthura can offer a fully fledged range of small flowered Phalaenopsis to its customers with these varieties.

Phalaenopsis plants with their small flowers also have their own position in the sales market as well as having their own place in the range. The trade appreciates the rich flowering, the excellent shelf life and the exclusive colours of the small flowered Phalaenopsis very much. An additional benefit is that no fewer than four layers can be placed on a Danish container (transport container) instead of the usual three layers, which is a considerable benefit with regard to transport costs for the trade and therefore also ultimately for the customer.

In view of the expanding Phalaenopsis range, it may also be interesting for you to include the small flowered Phalaenopsis varieties in your product package. Please contact your sales representative for more information about these varieties and their availability.

ir. Robert Kuijff

I n t e r v i e w

Fleuralia

Fleuralia S.A. is Anthura's agent in Spain and is a part of the German Selecta/Klemm group. They have a sales office in Vilassar de Mar, near Barcelona, on the site where the wholesale flower market can be found. Fleuralia exists for approximately eight years in its current set-up and specialises in supplying high-quality plant material for bedding plants, gerberas, carnations, chrysanthemums and currently also Anthurium plants. We interviewed Richard Buis, the Dutch Fleuralia representative on the Spanish east coast, that roughly covers the area from Barcelona down to the south of Malaga. Richard is 42 and has been living in Spain for 19 years.

Fleuralia has a wide range of products. Why did Fleuralia start to market Anthura's products?

After a difficult start and after sounding out the market, we believed the time had come for products such as those offered by Anthura. We noticed that Spanish growers had a need for exclusive products such as Anthurium cut flowers. Owing to the increasing enlargements in relation to culture scales, as can be seen for chrysanthemums and carnations, these cultures have become very competitive. The result has been that growers are directing themselves to other cultures that can provide healthy returns. This is the reason why Fleuralia believes that there are good growth possibilities in new cultures in Spain and therefore we intend to make use of these possibilities as much as possible in partnership with Anthura.

What development will we see with regard to the growing of Anthurium plants in your opinion?

The surface area used for Anthurium cut flowers will continue to grow gradually because we are nowhere near the saturation point. The average cultivation area of Anthurium plants per horticultural operation is around 2,000-3,000 m² and growers mainly serve their local customers around the large Spanish cities such as Barcelona, Madrid, Valencia and Alicante.



Different varieties of small-flowered Phalaenopsis.

Unlimited in varieties

anthura®

Florists are becoming more and more familiar with Anthurium, which means that the demand for locally grown products is increasing. After a difficult start in relation to the growing of pot Anthurium and Phalaenopsis, because of their unfamiliarity with these products and also their moderate quality, Spanish growers are now on the right track. Growing pot Anthurium and Phalaenopsis is developing more and more because the required knowledge about and interest in the products are increasing and product quality is improving. However relatively inexpensive pot plants of moderate quality from the Netherlands are still arriving on the Spanish market when there really is a growing demand for quality products.

The knowledge level in relation to cultivation is developing well, partly due to the support offered by Fleuralia. Anthurium is usually

grown on coarse perlite in beds or trays. Film and sheet greenhouses have a pad/fan cooling system to bridge the hot dry Spanish summer. Pipe heating is applied in abundance in the winter. The quality and the pricing of the flowers are good. The average price for Anthurium cut flowers is between € 0.90 – € 1.10, depending on flower size and variety.

Does the Dutch Anthurium compete with the Spanish Anthurium?

The Dutch Anthurium naturally competes against the Spanish one, but the Netherlands also plays an additional role when local production is insufficient. An example of this is during All Saints' Day (at the beginning of November). The Netherlands has the disadvantage that it is at a great distance from Spain. Transport costs are considerable and moreover the transport of Anthurium and Phalaenopsis must be conditioned in the winter (between 18°C – 21°C). The quality of



Richard Buis (left) at the SAT Los Ritas nursery.

the Dutch pot Anthurium is in particular often disappointing. We have the impression that the best quality Dutch plants mainly go to Germany, Italy and Scandinavia. The Spanish market is a price-driven market: they want high quality at a low price. With the advance of European integration, Spain has undergone huge development. This also applies to the ornamental flower cultivation sector and the need for change is present. With a population of more than 45 million people, we can see many great opportunities for the Spanish ornamental flower cultivation sector. Fleuralia therefore has a lot of confidence in the future of Anthurium and Phalaenopsis plants!

What would you define as the limiting factor of Spanish ornamental flower cultivation?

The investment level of the Spanish ornamental flower cultivation sector is limited. This means that often there is little financial room to develop innovative projects. Investment in cultures is necessary in order to ensure that you remain profitable and competitive in the

ing. Maarten van der Leeden



The last "From Nic" column

This is my 46th and last "From Nic" column after 11 years. The new management team consisting of Iwan van der Knaap, Mark van der Knaap and Marco van Herk has in the meantime taken over the running of Anthura. This is a good reason for me to stop my column and to give the new management the space to put across its vision. I have always written the pieces with great pleasure. The cultivation of Anthurium has experienced a positive development during those 11 years, mainly in the area of production. Production improvement has partly been the reason why the market has been disturbed in the Netherlands, but ultimately it will also provide the solution. How this will take place will depend on the extent to which control of issues can be gained in both the areas of production and marketing. I would like to look back to my 1994 article to further substantiate this assertion: "Control or no control". I do not believe there is anything more to add. I also would like to thank the readers of my column for their attention and reactions that I have regularly received.

Control or no control (2nd volume, number 4: September 1994)

We will probably never know what the maximum production of Anthurium flowers can be per m². 92 flowers per gross m² were once harvested during a test in relation to the TROPICAL variety. Firstly, the question is whether this will continue to be an exception and, secondly, whether the production level could even be higher.

Yes, I can already hear you making excuses for your own low production level. You have larger flowers and a better average price or you do not require that many or, even easier, you do not believe it. Just take it from me, those 92 flowers were attained and there was nothing wrong with them. It should go without saying that also the Anthurium grower who managed this performance on 500 m², is also trying to determine how he can achieve those 92 flowers per gross m².

It is probably not just by pure chance that such exceptional production levels are usually attained in some tests. Such a test field, after all, is given attention and is usually kept under strict surveillance. The production

level of horticultural products is determined by two factors. On the one hand, the knowledge with regard to what a plant requires and, on the other hand, the question with regard to how you can make sure that the plant is given what it needs. This is not so easy, because it is a complex of factors that determines the growth of the plant. These factors must also be geared to each other using the correct ratios.

That knowledge is available to virtually anyone, but applying that knowledge and keeping all possible factors under control is another matter. You can see striking examples of this in aviation. If you fly from A to B, the chances that you will crash are virtually zero. But if the chances were of the same magnitude as related to your suitcase not arriving, nobody would ever get on an airplane again. There is really no relationship if we examine the complexity of factors that determine the result. Flying implies large risks. Technology and the weather are both involved. The technology and procedures have been perfected and therefore they are under control to such an extent that the risks are minimal due to thorough analysis of the factors. The suitcase however seemed to be a simple issue and therefore less has been done about it and suitcases are still being lost.

We can learn from the above not only that the complexity of problems and procedures will not determine the result alone, but also that the attention paid to resolving those problems and to controlling the procedures correctly play an important role in relation to the end result. We must therefore continue to fanatically control growth restricting factors.

We must try to control all factors that determine the result to such an extent when growing Anthurium plants that harvesting 92 flowers becomes just as much of a certainty as the fact that an airplane will stay in the air.

Nic van der Knaap

Cultivation technology

Cut flower Anthurium plants grown on perlite

Cut flower Anthurium plants are mainly grown on lava, oasis and rock wool. Oasis and rock wool are not always available and lava

granules have the disadvantage that they mainly contain air. This is the reason why in Europe we can observe an increase in cultivations that use perlite. Just like oasis and rock wool, perlite is inert and has a good air/water ratio. Inert material means that the substrate will only change slightly with regard to its



Fast growth of a young Anthurium plant.

composition during the several years that it takes to grow cut flower Anthurium plants.

Crude perlite can be found in abundance all over the world. It is a siliceous rock that is created by volcanic eruptions. This rock contains compounded water due to direct contact between lava and fresh water. The rock is purified and broken down into different graduations. The rock is processed in special kilns at a temperature of approximately 950°C. During this expansion process, a porous, whitish granule is produced that has up to 15

times the original volume. Perlite is very porous and has a low volume weight. Perlite also has a neutral pH level and a low EC level and the substrate cannot buffer nutrients. A large granule is best for Anthurium and the granule is usually referred to as fraction 3 (with a granule size of up to 6.5 mm).

Different criteria must be met to grow on substrate. These criteria include maintaining an oxygen balance in relation to the water and the durability and solidity of the substrate itself. Perlite can absorb very little water with a 55% pore volume while rock wool and oasis can retain 90% water. These are percentages related to the pure product and the actual water content in the tray or in the pot will be lower. One benefit of growing using perlite, is that good control can be implemented with a low water volume. Since the nutrient solution can be refreshed rapidly, fertilisation can be changed quickly. An incidental disadvantage is that every mistake with regard to irrigation will immediately affect the plant. If water is given too late or if the wrong fertilisers are administered, problems will ensue more rapidly for the plant than if a different substrate is used. Analysis has shown that the concentration of the elements that can be absorbed quickly in perlite, decreases rapidly. This mainly involves nitrogen and potassium. The rapid decrease of these elements means that if water is not given in sufficient quantities and at the right frequencies, the plant will not be able to absorb these elements. A substrate that is too dry can however be rapidly made wet again by means of the suctioning effect. This is a lot more difficult in relation to oasis and rock wool. You will need to water frequently to ensure that dried out substrate is re-soaked, that represents a serious problem for the roots that may be present in the substrate. The conclusion is that with perlite you do not have to implement any other irrigation strategy. Growing using perlite



Good root distribution with fine roots in a tray.

means watering more frequently and in higher quantities than would be the case with other substrates. In spite of a higher drainage it will be difficult to over-water.

Oxygen is also very important to Anthurium plants. Rock wool and oasis that are too wet will quickly lead to root problems in the winter due to oxygen deficiencies. Rock wool and oasis retain water for a longer period and you must start in time with the winter reduction of irrigation quantity with these substrates in order to ensure that root problems can be avoided in the winter. Perlite, on the other hand, has pores in the granules that are filled with air. These pores supply the substrate with a higher air content which means that the oxygen provision is good for roots.

To conclude, sufficient strength and durability of the substrate is important. Durability is good in relation to perlite, because the material is very inert. Since perlite consists of loose granules, the strength of this substrate is not as good. This means that the plant must produce a lot of roots before it can stand straight firmly. The production of roots is well spread in perlite because fine roots will grow. Fewer and thicker roots are produced in oasis and rock wool. Perlite can make the plants more generative, but whether this is mainly due to growing under drier conditions is not totally clear. Experiences using the perlite substrate are positive. We have seen in practice that you can grow quite well using perlite if using a tailor-made watering regime in the Netherlands, Spain and Italy. If rock wool and oasis are not available, perlite is a useful alternative for growing cut flower Anthurium plants.

ing. *Hans van Eijk*
Bureau IMAC Bleiswijk B.V.

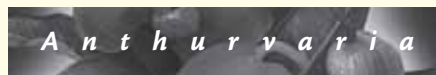
Phalaenopsis cultivation guide

Anthura is an important knowledge centre for Phalaenopsis and this knowledge has been published in the form of a guide for growers. The Phalaenopsis cultivation guide (170 pages) is available in Dutch and in English as of today.

You can download an order form for the Phalaenopsis cultivation guide from the Internet (www.anthura.nl; click on Publications) or you can request the guide from one of our representatives.



Anthura booth during the Hortifair 2004.



New management

Last year was a very special year for Anthura because it was the end of an 80-year era! Nic and Jeannette van der Knaap have jointly spent 80 years working and building up the horticultural operation that has grown to become Anthura.

On 15th December last, Nic and Jeannette officially relinquished the reins to the new management body, which consists of Iwan van der Knaap, Mark van der Knaap and Marco van Herk. Taking over a business is an important step for any company and Nic, Jeannette and all Anthura's employees wish the new management the best of luck with achieving their ideals.

Nic and Jeannette will, for the time being, still remain involved with Anthura; Nic as project advisor and Jeannette will continue in her HR position on a part-time basis.

All the employees of Anthura would also like to wish you a merry Christmas and a happy new year from the cold Netherlands!

Growing tips

Have your outside radiation meter checked regularly to ensure that the meter cannot become contaminated or show deviations!

C O L O F O N

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