

# Anthurinfo

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## VARIETIES

### **Anthura Rotterdam®**

Just like the city of Rotterdam, this Phalaenopsis pot plant has many different qualities. This middle-sized variety draws attention to itself with its remarkable flowering pattern. The pink colour in the centre of the flower makes a pretty contrast with the white of the edges. In addition, this plant also has a lovely shape and leaf colour. Anthura Rotterdam® grows to a nice, full shape with two stems, while the compact kind is also capable of producing three stems. Interesting for growers is that this variety grows quickly and has a branch height of 55 cm, including pot.

### **Laetitia de Goeij**



*Anthura Rotterdam®*

### **Dakota®**

Although Dakota® is not a new introduction to Anthura, this variety deserves special mention. It is one of our most important varieties in the area of large-flower pot Anthurium. What makes Dakota special is that the plant is held in high esteem in every conti-



*Dakota® in Japan*

nent on earth, both by growers and by trade and retail outlets. This is of course the result of its being a beautiful plant with remarkable, large red flowers. From the standpoint of the growers, it is a variety that is easy to cultivate, and one with a good system of roots. If Dakota is planted at the right time, then a beautiful, compact plant results. From a commercial point of view, Dakota is likewise a real winner. It keeps well and it performs well both in warm (sub)tropical climates, and in cooler ones, as well as under a variety of different cultivation conditions. In short, Dakota is a winner on all fronts.

### **Maarten van der Leeden**



*Dakota®*

## VISIT REPORT

### **Distinguished visitors at Kunming Anthura Horticulture Co. Ltd.**

On Wednesday 7 November 2007, Kunming Anthura Horticulture Co. Ltd. received the Chinese Minister of Agriculture, Mr. Sun Zheng Cai. The visit to the Kunming company opened up last year, had only been announced a few days prior and was made by a complete delegation of Chinese officials. The visit took place in the morning on account of the fact that, from a hygienic point of view, we wanted to be the first company to be visited by this distinguished delegation.

As director of Kunming Anthura Horticulture Co. Ltd, Marco van Herk received this special visit.

The delegation consisted of:

Mr. Sun Zheng Cai, Minister of Agriculture;  
Mr. Li Ji Heng, Vice Secretary of the Yunnan province;  
Mr. Kong Chui Zhu, Vice Governor of the Yunnan province;  
Mr. Duan Xing Qiang, Director of the Yunnan province Department of Agriculture;  
Mr. Yang Chong Yong, Secretary of the Kunming Commission;  
Mr. Zhang Zu Lin, Mayor of Kunming;  
Mr. Shi Tian Jun, Director of Yunnan province Flower-Industry Administration Office;  
Mr. Li Gang, Vice Director of Yunnan province Flower-Industry Administration Office.



*A view of the company in Kunming, China*

In the greenhouse the different varieties were carefully inspected, while a film crew recorded everything. The minister was very impressed by the Anthurium and Bromeliad varieties in the greenhouse.

Special attention was given to the Altimo® variety, which, with the Olympic games just around the corner, is also known in popular speech as the 'Olympic Torch'.



*Great interest is shown in the 'Olympic Torch'*

In the course of the tour around the greenhouse a number of issues were discussed with the minister. The most important of these revolved around cultivation rights in China, which for Anthurium and Bromelia, among others, has not yet been esta-



*Chinese delegation in the greenhouse*

blished. At the present the market in China is heavily under the influence of massive local propagation, which is putting market prices under heavy pressure, making it hard for many growers to fetch good prices for their end products. For years, Anthura has been soliciting the establishment of plant breeder's rights for Anthurium in China. If plant breeder's rights are established in China, Anthura can protect its varieties in the market and expand its business activities. Furthermore, other issues were discussed, such as the question of when the new international airport near Kunming will be ready, and what can be done about the difficult export procedures from Kunming.

The proceedings came to a close around noon with a speech thanking all the local officials for all the great help we have received in Yunnan in setting up the company there. After the visit to our company, the delegation went on to visit the other companies in the Songming Demonstration Park.

**Marco van Herk**

## TRAVELLING ABROAD

### **In Ecuador**

The world is a rich source of natural phenomena. Ecuador, for example, is a country with a great many volcanoes. The 5,023m-high volcano 'Tungurahua', also known in popular speech as 'fire neck', often occupies the minds of Ecuador. Will it erupt, or not?

If we are to believe the experts, it could happen at any time. Well then: evacuate! But what to do if your entire existence is tied to the foot of this one, highly explosive mountain? Stay? With the risk of losing everything, in the worst case life itself? Or leave? With the consequence of having to leave all your

property behind on a volcano that (just as 9 years ago) perhaps is not going to erupt at all.... To choose, in this case, is always to lose, thus making the choice almost impossible.

The above came to my ears during my trip to Ecuador for Anthura at the beginning of January. It dawned on me that these kinds of real questions about life and death are quite normal over there. How would I fare if I was faced with a decision like that? Because, briefly summarised, this boils down to a choice between the safety of one's family, and giving up one's sole source of income: the cultivation of plants.



*The Tungurahua volcano*

In a less dramatic way, entrepreneurs in our field also have to make choices on a daily basis. Those entrepreneurs that know how to make possibilities out of choices and not difficulties, will have a lead. Uncertainty presents opportunities to those with an eye for them. How to deal with changing exchange rates? Do we opt for expansion, or for specialisation? Do we look for alternative sources of energy, or do we go back to coal? To change or to manage? To stay or to leave? These are different questions that pose unavoidable choices. But how to make these? Out of fear, or a sense of challenge? Luckily, we do not have to make our decisions with a swirling volcano in our backyard, although the ground can get quite hot under our feet at times....

**Edwin van den Nieuwendijk**

*At the time of writing the volcano mentioned was still unsettled. On 6 February, the volcano erupted, and thousands of people were forced to flee. Furthermore, thousands of hectares of agricultural land were destroyed, and many families suffered damage to their homes.*



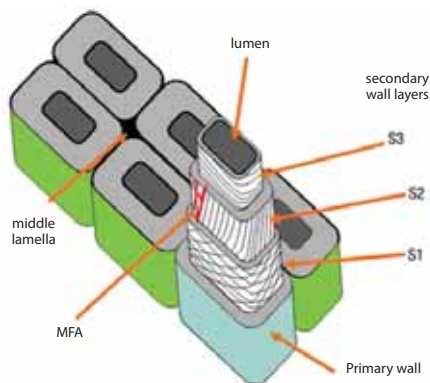
**CULTIVATION TECHNOLOGY**

**Glassiness, bluishness and spots on the ears at Anthurium**

Significant problems with the quality of Anthurium flowers come by way of glassiness, bluishness, and spots on the flowers. Glassiness occurs above all in light-coloured cultivars and bluishness comes out in the orange/red segment. The spots are mainly to be found on the ears in a number of varieties susceptible to them. These symptoms all have the same physiological cause: poor above-ground activity in combination with (over)active roots can cause poor evaporation of the moisture pumped into the cells. The result is that the moisture makes its way into inter-cellular cavities (open divisions between the cells) and then cannot easily get out again. This shows itself as glassiness and bluish discolouring of the flower. Spots on the ears come about through collapsed cells, since these cause brown stains. After a few days, these spots may show up in the flowers! Although the cause of the problem is the same, the period in which problems occur are nonetheless different for different varieties and cases. There are a number of factors through which this type of damage does or does not occur and they are given below.

**Cell wall**

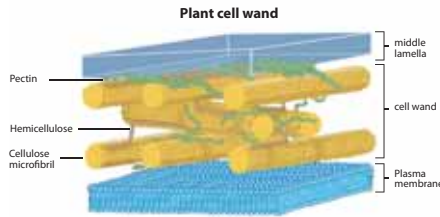
Cell walls are built of pectin. These are long chains of sugars tied to each other by calcium bridges. In addition, there are cellulose fibrils to be found between the pectin. A fibril consists of strands of cellulose molecules arranged in parallel. Just like pectin, these consist of long sugar chains; the only difference lies in the bond between the sugars. Thus, for a solid cell wall, next to



Cell wall consisting of several different layers with fibrillae

calcium, proper photosynthesis is also important.

The flowers in which these problems occur are of a weaker disposition. Most significantly, the dry-matter calcium values have shown themselves to be lower for these flowers. Their calcium uptake and incorporation into the cell membranes will then not usually be good. Weaker cell walls result, whereby cells can more easily be damaged. This results in bluish discolouring or spots on the ears of weaker flowers.



Structure of cell wall with pectine and cellulose fibrillae

**Calcium uptake**

All elements can be distributed throughout the plant via the phloem, except for calcium, which is conducted along the vessel. This is why it is important for calcium uptake to have sufficient activity in the plant. For the plant to be able to take in the proper amounts of calcium, it is important for it to be available in sufficient amounts. Fertilizers such as ammonium and potassium can also impede calcium uptake, and so ammonium levels should be kept low. Over-availability of potassium also works against calcium uptake. Biasing the potassium-calcium ratio more towards calcium makes calcium uptake easier. In case of airy substrates with proper drain overflow, a ratio of 2:1 can be maintained.

More evaporation results in extra calcium uptake, which is then transported via evaporation and root pressure through the vessel to the growing parts of the plant. This is why for proper calcium uptake, it is important to facilitate proper evaporation. This can be achieved by holding relative humidity (RH) levels under 85%. It is therefore important in the case of lower evaporation levels to work with as little tubing as possible. Heating by means of overhead tubing will also facilitate more evaporation in the plant.

**Weaker cell walls**

At lower calcium levels in the flowers, the cell walls become weaker. To prevent damage to the flowers it is important to



Bluish discolouration

lower the root pressure. In older flowers the problem occurs more quickly. This is why, in the case of flowers with weaker cells, it is important to harvest them while they are still a little less than mature. To lower root pressure, EC levels can be raised sharply. In this case, choose a temporary drop EC of between 2.0 and 3.5.

Make sure the temperature regime is kept steady. Variations in temperature cause increased root pressure and lower evaporation rates, which can cause further problems. Leave stomas sufficiently open. By not letting moisture levels in the greenhouse run too high and by keeping CO<sub>2</sub> concentration low, less pressure comes to bear upon the weak cell walls. Breakage in the young



Spots in the ears of the flower

leaves results in increased susceptibility to the problem. Older leaves usually have less evaporation capability. In addition, breakage in the young leaves results in root pressure not evaporating via more active young leaves, which means extra root pressure on the flowers.

All in all, enough tips to keep up optimum quality in Anthurium flowers!

Hans van Eijk  
Bureau IMAC Bleiswijk B.V.

**ANTHURVARIA**

**Anthura attendance at trade fairs from April to July 2008:**

**10th Hortiflorexpo  
China trade fair in Beijing, China  
09/04/2008 – 12/04/2008**

**Flowers & HorTech, trade fair in Kiev,  
Ukraine 15/04/2008 – 17/04/2008**

**Hortitec, trade fair in Holambra,  
Brazil 11/06/2008 – 13/06/2008**

**New greenhouse**

To maintain the efficiency in the future a central production of young plant material is build. Innovative technologies are used for maximum climate control in the greenhouse.

The greenhouse complex has a surface of 12 ha with a total floor area of 140.000m<sup>2</sup>.



*The foundation is under construction*

Important, modern techniques are implemented, of which three developed by Anthura: diaphragm screen, 'greenhouse in a greenhouse' and Counter flow.



*Steel skeleton of the greenhouse*

The new greenhouse will be realized at the Cyclamenweg in Bleiswijk and will be finished before the end of 2008.

The different stages of the building will be shown in a special online photo gallery. Please visit our website [www.anthura.nl](http://www.anthura.nl) main menu News > New greenhouse.

**New employee in the sales department**



*Frank Verhoogt*

January 2<sup>nd</sup>, I, Frank Verhoogt, started as sales manager for the regions of South-east Asia, Australia and New-Zealand. After a period of internship, I will be supporting our agents and customers in those regions and, where possible, I will be strengthening ties, acquiring new customers and, last but not least, helping existing customers to grow.

I am 43 years old, married, and live with our two children in Oude Wetering. After my secondary education, I did occupational training for flower cultivation and attended various evening courses. Thereafter, in 1984, I started at the cut flower company Vegmo Plant. There I was in charge of the sowing department, germ-cell testing and seed purchases. In 1995 I entered

**Dutch Creations attendance at trade fairs from April to July 2008:**

**Len Expo City Flowers, trade fair in  
St. Petersburg, Russia  
24/04/2008 – 27/04/2008**

the 'bedding plants world' and exercised commercial functions in connection with Moerheim and Prestige plants. In 2000 I started working for the American concern Ball, whereby I carried out European functions pertaining to sales, marketing and product support to European distribution firms and agents.

In the meantime, I have already met various customers and agents in Japan, Korea and Australia. Soon I will be going to other Asian countries. So to them, see you soon!

**Growing tip**

The pH and EC of the used starting water can vary considerably in the course of the year. Therefore measure regularly the pH and EC of the water so that you can make, if necessary, adjustments in time. The variation in the starting water elements can be controlled via water analysis.

**COLOPHON**

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