

CASE STORY

MOISTURE PROBLEMS AT CHRYSANTHEMUM GROWERS SOLVED BY AIRMIX

It can sometimes be a challenge to achieve a uniform climate with an acceptable humidity level. Even with two or perhaps three screens, a grower may encounter situations that can't be resolved with the available instruments. In 2015 Van der Ende Group developed the Airmix, a smart solution that draws a controlled amount of dry, cold air from above the screen into the greenhouse. While many growers use the Airmix to provide cooling under a closed screen in the summer, René van Kester also uses the system in winter. 'I know for sure that it gives you great peace of mind.'

PRODUCTS SUPPLIED:

- 102 AIRMIX SYSTEMS



The Airmix has proved to be the solution for a problem faced by many growers worldwide: when you close the screen, the temperature and humidity in the greenhouse move out of line with the ideal picture. The only option in the past was to open a small gap in the screen. However, this solution also had a downside: a cold downdraught under the screen, which creates irregularities in the greenhouse climate that can lead to production differences. The fact that the horticulture sector was waiting for this innovative solution is clearly evident from the number of hectares now equipped with the Airmix: more than 300, since the first system was installed in 2016.

The Airmix is a fan with modulating valves, which draws in cold, dry air from above the screen. This is mixed with the warm, moist air in the greenhouse. The fan distributes the mixed air evenly within the growing space. The system is linked with the climate computer to automatically determine the right ratio between horizontal and vertical air intake. The Airmix is used not only for dehumidification but also cooling, and it can also serve as a regular air circulation fan.



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MOISTURE PRODUCTION

R. & A. van Kester is located on Heulweg in Kwintsheul (Netherlands), and has 4.6 hectares of Baltica White chrysanthemums. Climate challenges with cut chrysanthemums occur mainly in the winter. 'As growers, we now have many ways to create more growth. But that growth causes the crop to produce so much moisture that you can't extract it properly with a closed screen. The plants then become too luxuriant, too leafy. And then you have to look for a solution,' says René van Kester.



Left René van Kester,
right Bart van Kester.

VANNOVA GROWERS' ALLIANCE

René started his search for a solution by asking other growers, including those in the VannoVa growers' alliance. 'One of the problems we face with chrysanthemums as a crop is Japanese white rust. People had found from experience that if the Airmix is used correctly, it more or less prevents this Japanese white rust. So you get advice from everyone around and you also get information from trade journals,' says René, who is responsible for the growing side of the business. Bart, a member of the next generation, now also works in the company alongside René and André.

'FINE-TUNING THE SYSTEM TO MEET THE CUSTOMER'S WISHES'

The system has been operating at the company for several months now. The expert partner that installed it is Boekestijn Elektrotech in De Lier (Netherlands). 'At first, it wasn't a great success,' Bart explains candidly. 'It always takes a while to work it out: what do you actually want as a grower? And for our computer supplier Hoogendoorn too, it was a question of optimisation. Everyone has their own ideas about this. At the beginning of December last year we all got together to discuss it. In collaboration with Boekestijn and Delphy, we soon found the solution. And we haven't changed any of the basic settings again since 10 January this year.'

It's a familiar story: the way the Airmix operates must be tailored precisely to the company situation. Every situation is different, and the grower's wishes and goals also play a part in fine-tuning the system.





MOISTURE NOW UNDER CONTROL

Although the company only has six months' experience with the Airmix, René has a very positive opinion of the innovative concept. 'We can now keep the moisture under control and there's a normal temperature distribution in the greenhouse; we don't need to keep opening gaps in the screen. We only started using the system on 1 November, so I don't yet have a picture of the whole year. But I know for sure that once the settings are right, the Airmix gives you great peace of mind in the winter.'

ALSO A SOLUTION FOR LIGHT EMISSION

'We see more and more growers who are finding it difficult to combine dehumidification with maintaining a uniform climate. This was actually the issue that led René van Kester to contact us. He'd heard about the Airmix from other chrysanthemum growers and he asked us whether it would be suitable for their company too,' says Rob van Hulzen of Van der Ende Group. In his dual role as account manager and Airmix specialist, he observes a growing demand for a system that solves two problems simultaneously. Or actually three: preventing light pollution as well. New laws mean that growers have to limit the emission of assimilation lighting at night, and the Airmix system makes it possible to keep the screen closed under the lighting system, while maintaining the optimum climate.

WE WILL BE GLAD TO HELP YOU

Would you like to know more about the Airmix ventilation and circulation system?



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