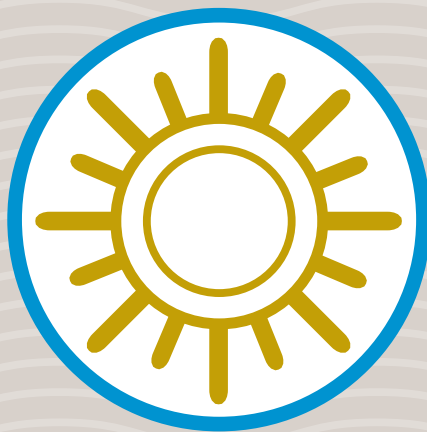


**Van der Hoeven**

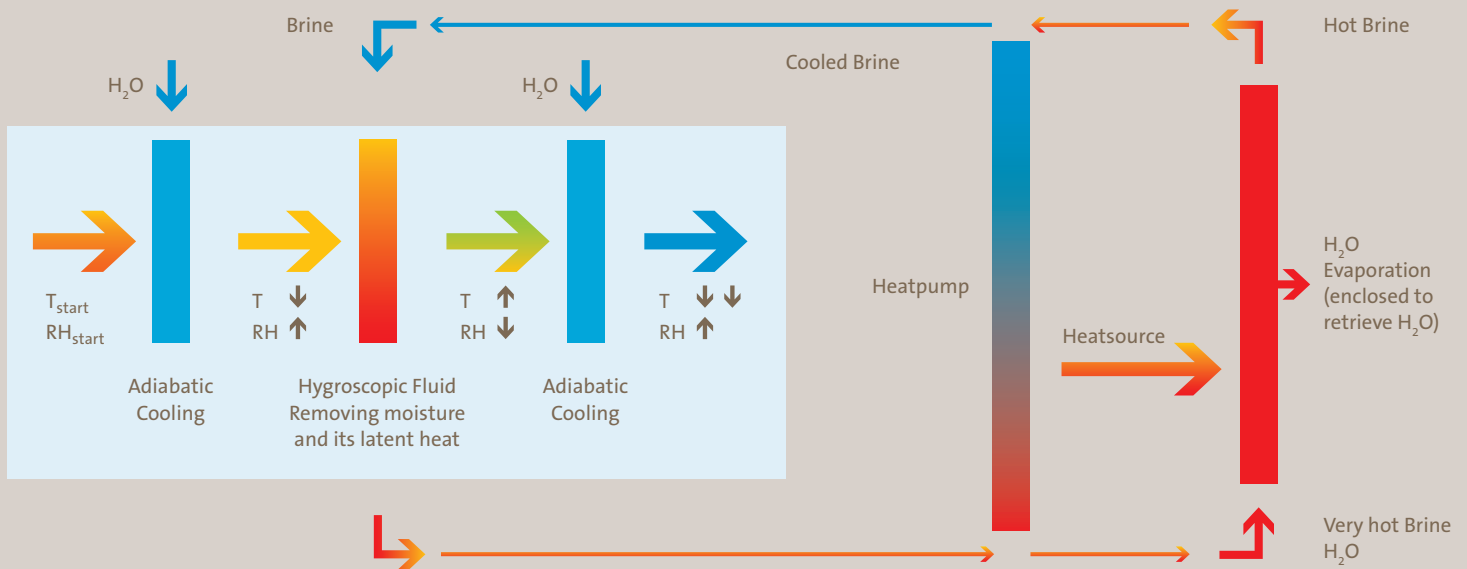
Horticultural projects with IQ

## Growing in tropical climates



# Hygroscopic Adiabatic Cooling (HACo)

A hygroscopic solution to treat air to a 'usable temperature'.  
Implementable by using 3 cooling pads in sequence.



HACo forms the first serious and practical step towards operating greenhouses in more tropical climates and facilitating a horticultural food industry across the entire planet.

The problem with humid climates lies in the large energy consumption of the condensation of moisture, actually re-using this energy is what makes HACo such an innovation. With HACo, a broader range of climates becomes available for ModuAIR (semi-closed) greenhouses across the planet.

As the ModuAIR system is expanded with this concept, it can treat and control the inside climate despite more humid and challenging outside conditions. The system uses mainly heat as an energy source, allowing heat sources like biomass plants to be used with only a limited electrical consumption for the remaining components.

No system like that has previously been built, designed or implemented in the world.

The uniqueness of HACo within the ModuAIR system expresses itself by:

- a suitable solution for growing in tropical climates
- a better controlled greenhouse
- optimized use of energy and  $CO_2$
- low energy consumption
- increased yields
- minimum use of pesticides
- sustainable production

#### For more information:

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