

## Excellent cucumber production in Chinese lean-to greenhouse

**There are more than 1 million hectares of so-called “solar greenhouses” in China. These are greenhouses with walls that store solar radiation and give it off at night.**

A consortium in which we are collaborating with the Ridder Group, Hoogendoorn, Ludvig Svensson and Delphy has built a Chinese solar greenhouse on our Bleiswijk site, with funding from the Netherlands Enterprise Agency and the Rotterdam The Hague Metropolitan Region. We want to demonstrate that major advances can be made in yields and quality using modern Dutch horticultural technology. The Bleiswijk solar greenhouse is equipped with a computer-control-

led substrate system, climate computer-controlled ridge ventilation and moveable transparent screens.

Cucumbers and tomatoes were grown in the greenhouse in 2017, and more cucumbers were grown last year. The total yield of the variety Proloog was 75 fruits per m<sup>2</sup> with an average weight of 405 g (30.4 kg/m<sup>2</sup>). Using a simulation model, we calculated that in a Dutch greenhouse with CO<sub>2</sub> dosing, 90 fruits of the same fruit weight (36.4 kg per m<sup>2</sup>) would be produced in the same period. Because no CO<sub>2</sub> was supplied in the solar greenhouse, the yield can quite safely be described as excellent.



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