

# PROJECT

Greenhouse size | 1,6 ha Crop | Roses



#### About Van den Berg Roses

Van den Berg Roses is one of the main large-scale international rose growers in the Netherlands. It has nurseries in Naivasha (Kenya) and in Kunming (China). In the Netherlands, Van den Berg Roses grows large-bloom roses on 120,000 m<sup>2</sup>. They grow medium-blossom roses on an area of 700,000 m<sup>2</sup> in Kenya. 95% of their roses are for the international market and find their way to florists from Moscow to Los Angeles and from Oslo to Singapore. In Kenya they aim to be a social safety net for its staff, their families and their town. It provides aid in health care, schooling and clothing.



"Thanks to the lower input of water and fertilizers and higher production levels, the running costs remain low while the return increases."

### Challenge

Water shortage plays an important role in Kenya, where there is a dry continental climate. In order to utilize water in the most efficient way, effective water management is essential. Therefore, the Green Farming Water Demo Project, developed by a consortium of Dutch suppliers and initiated by Bosman Van Zaal, was launched in January 2012. The project demonstration takes place at the Van den Berg Roses company in Naivasha, Kenya.

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# Facts

Company name Van den Berg Roses

**Grower** Arie van den Berg, owner

**Crop** Roses

**Greenhouse size** 1,6 ha

Location Naivasha, Kenya

**Solution** iSii process computer, coco-peat substrates irrigation systems

**Result** 60% water savings and 20% higher production level

#### **Solution & Results**

All relevant technologies and services relating to greenhouse management applicable to the East African cultivation conditions are demonstrated at the Van den Berg Roses project site. Roses of the Upper Class variety have been planted in a hydroponic cultivation system, with coco-peat as the growing medium. The use of water and fertilizers, and production results of the hydroponic system are compared with soil population reference planting controls.

The Hoogendoorn iSii process computer optimizes the dosage of all water sources used such as rain water, drain water, lake water and water boreholes. It also takes care of the complete recirculation and disinfection of drain water. This efficient water management results in a healthy crop with responsible and efficient use of water and fertilizers. Results show that the reduction of water use is at least twice as high as the forecasted minimum saving of 30%. A lower input of water and fertilizers, and higher production levels (20%) resulted in lower running costs while the return increased. This project proves that good water management, which includes controlled hydroponic systems, makes Kenyan business more sustainable and successful.

## Worldwide innovator in horticultural automation







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