

## WELLBEING

# KENYA

Producing ornamentals and vegetables with Dutch expertise

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Kenya has some 3,000 hectares of flower production and 100,000 hectares of open field and protected vegetable crops. The country's climate and environment provide ideal growing conditions. In this context, new horticultural technologies can help to achieve sustainable production that continuously safeguards the welfare of people and the environment.



Green Farming is a programme that aims to combine Dutch technology and experience with East African production needs. The purpose is to customise Dutch greenhouse technology for East African horticulture. Kenyan growers have shown a great deal of interest, with many joining a trade mission during which highlights of the Dutch horticultural sector were visited.

### Water and climate

Water was the most prominent issue brought forward. Kenya has two seasons with heavy rainfall, which calls for rainwater harvesting to limit run-off and to have easy access to irrigation water during the dry season. Measurement and maintenance of the quality of irrigation water need continuous attention, as do the costs of bore hole operation, water disinfection in recirculation system, and disposal of drain water. Solutions have to be found with a limited financial budget, and at a technology level that is suitable for Kenyan circumstances.

Another major issue is climate management, in particular humidity management. Humidity is very high in the rainy season and in the early morning, stimulating Botrytis and mildew. On the other hand, humidity is too low in the dry season.

### Solutions

Both water and climate management need an integrated solution, in which sensor technology is used to base management decisions on facts. Technical modules are available to build a tailor-made integrated system.

Management of the quality of incoming water provides a good starting point, enabling repeated recirculation and reduced drainage, for instance. It can also reduce the size of rainwater storage systems, although this requires a disinfection unit. The application of nutrients should be based strictly on the needs of the crop, thus reducing costs and improving drain water quality. Good horizontal and vertical air circulation can reduce the leaf wetness period, while computer-guided misting is an alternative to labour-intensive hosing.

### Tailor-made

Kenyan greenhouse horticulture can benefit from greenhouse technology from the Netherlands tailored to the local circumstances. Training of staff and management should be an integral part of the solution.

Partner in this seminar: Green Farming