

Decrease water emission in Egyptian vegetable production

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Wageningen UR Greenhouse Horticulture is the leading research institute in the international greenhouse horticulture

Egypt is an important exporter of vegetables to Europe (like the well-known beans) and the Middle East. For the intensive cultivation of tomatoes and sweet peppers plastic greenhouses are used. Problems with soil diseases, water use and emission of nutrients are increasing. The collaborating Egyptian and Dutch governments are stimulating Egyptian companies to organise research into biological control (Koppert) and the

more efficient use of water and nutrients (Hortimax).

Wageningen UR Greenhouse Horticulture is collaborating with the Dutch horticultural industry to expand the possibilities to import [biological control](#) organisms and to use further automation of [crop irrigation](#).

Together with Hortimax we are involved in experiments to decrease the emission of water. It soon turned out there are two prerequisites for decreasing water use.

The first one is that in Egypt large and sudden fluctuations in the sodium content of irrigation water are common. This means that any water storage must be divided in at least two parts to be able to test and refuse newly delivered water before it is mixed with [irrigation water](#).

The second prerequisite is a certain production level. The present production level in Egypt was just a bit too low to justify the investment in drain water collection and recirculation. But to increase the efficiency of water and nutrient use drastically, recirculation of drain water is by far the most effective way. Therefore the yield level must increase enough to pay for that investment. To do so a list of consecutive measures was made in such a way each measure increased yield enough to pay for the next measure. This is realised by introducing technical means such as screens and soil meters. Egyptian growers are trained to use and interpret the information to ensure they can use the technical means as effective as possible.



Research on Egyptian companies

Provided by Wageningen University

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