



Adaptive greenhouse horticulture in subtropical highlands

Examples based on experiences in Mexico

Conditions in Mexico

The climate in the subtropical high-altitude zones of Mexico are suitable for greenhouse cultivation:

- Seasons with high radiation, which enable high production levels
- Low night temperatures
- Relatively low winter temperatures that require night-time heating

In the coastal zones, rainy seasons with low radiation and high relative air humidity occur. This requires good crop and climate management (ventilation).



Tomato production for export in Mexico



New greenhouses under construction

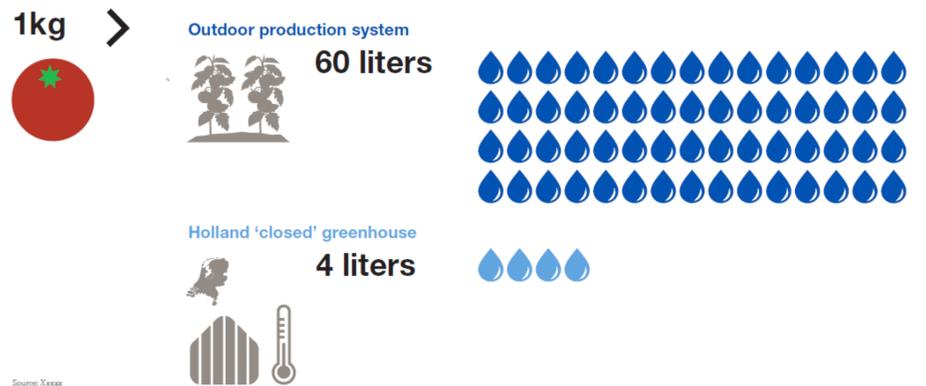
Contribution of Wageningen UR

Wageningen UR contributes to developments in Mexico in a number of ways:

- Sector assessments
- Optimum greenhouse design, based on maximum environmental and economic sustainability
- Collaboration in the MexiCultura programme

Water Use Efficiency in relation to technology

Liters water per kg tomato



Technologies for efficient use of water can be applied in greenhouses adapted to Mexican conditions.

Economic context

Greenhouse horticulture in Mexico is expanding rapidly. High-quality vegetables are produced both for the export (especially the USA and Canada) and local market, while flowers are currently mainly produced for the local market. Collaboration with the Netherlands supply industry is increasing. Increased sustainability through lower use of water, energy and chemicals are important marketing aspects

Adaptive greenhouse horticulture for Mexico

Issues are:

- Increasing production and product quality
- Optimum use of scarce water resources
- Avoiding low night-time temperatures
- Achieving low energy use
- Lowering the use of nutrients and chemicals
- Improving skills and knowledge

