

Intervention:	Citrus Improvement Program (CIP)
Country:	Egypt
Date:	1999 – 2006
Challenge:	Egyptian average citrus yield and export prices were very low compared to world data. Reasons for this low productivity were graft-transmissible diseases and the absence of a certification system in the sub sector
Objectives:	To substantially improve competitiveness, quality and exportability of citrus fruits under a sector strategy worked out with all stakeholders in the value chain.
Approach of the Intervention:	<ul style="list-style-type: none"> <li><input type="checkbox"/> From 1992-2002, eleven out of 56 local citrus varieties were selected for their agronomical performance and sanitary status, and submitted to sanitation in collaboration with the Mediterranean Agronomic Institute in Bari, Italy</li> <li><input type="checkbox"/> Screened and sanitized pre-basic material for eleven varieties was imported from Italy and multiplied as the mother root stock for all future multiplication in nurseries in Egypt</li> <li><input type="checkbox"/> 28 certified varieties and root stocks were imported from California and multiplied in the country.</li> <li><input type="checkbox"/> The citrus certification schemes of California, Italy, Spain and Morocco were analyzed and reviewed</li> <li><input type="checkbox"/> The first state-of-the-art public and private citrus nurseries were established.</li> <li><input type="checkbox"/> An indexing program was developed to test all local and imported varieties for the presence of graft-transmissible diseases.</li> <li><input type="checkbox"/> A laboratory was set up for regular testing for the presence of relevant pathogens</li> </ul> <p>The following interventions were carried out in cooperation with MALR and the private sector such as nurseries, growers and exporters:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Development of a common strategy for the sub-sector with participation of all relevant stakeholders</li> <li><input type="checkbox"/> Elaboration of the legal framework for citrus certification</li> <li><input type="checkbox"/> Drafting of a law for the licensing procedures for citrus nurseries</li> <li><input type="checkbox"/> Training and knowledge transfer to public and private nurseries on international standards for certification and the required technologies and investments to produce pathogen-free citrus planting material</li> </ul>
Benefits and Impacts:	<ul style="list-style-type: none"> <li><input type="checkbox"/> Monitoring data of CIP shows that by the year 2006 the private nurseries cooperating with the program will be supplying 40% of the local demand with improved planting material (1.6 million trees p.a).. In 2010, two thirds of the local producers will have access to this material.</li> <li><input type="checkbox"/> The price per tree rose from 0.30 US\$ to 1.10 US\$ per piece. The demand of farmers is far beyond capacity.</li> <li><input type="checkbox"/> The yield increase through improved planting material was monitored. CIP data indicates an increase of at least 12 tons per ha of exportable fruits. In the “New Lands” (desert), where most of the new orchards are established, the quality for potential exports has improved significantly since.</li> <li><input type="checkbox"/> When the first batches of improved planting material will be bearing fruits by the year 2010, the annual benefit for the sector is expected to be more than 14 Million US\$ per year. This compares very favorably with total project cost of less than 7 Million US\$ in seven</li> </ul>

	years of implementation, and represents an area of approx. 6% of the total Egyptian orchards planted with citrus by 2010.
Lessons learned:	<ul style="list-style-type: none"> <li><input type="checkbox"/> Favorable economic framework conditions, such as heavy investments of the private sector in new plantations in the desert, and the devaluation of the Egyptian currency were helping on the demand side for improved planting material and led to increasing export volumes of fresh fruits.</li> <li><input type="checkbox"/> International expertise in citrus certification and the application of new technologies by the leading producers and nurseries were essential to convince farmers of the potential of quality planting material, even at considerably higher prices.</li> <li><input type="checkbox"/> Establishing a certification scheme within strict regulations for the citrus nursery sector has substantially improved citrus productivity in Egypt.</li> <li><input type="checkbox"/> Even under pessimistic assumptions, the Internal Rate of Return of the project is at 24% and may reach more than 30% at constant costs and returns, based on the monitoring data of the season 2005/2006.</li> </ul>
Wider application:	<input type="checkbox"/> This systematic approach can be replicated for citrus and other fruits in the wider Mediterranean Region.
Implementing agency & partners	GTZ, Ministry of Agriculture and Land Reclamation (MALR), Mediterranean Agronomic Institute in Bari, Italy
Contact person:	Joachim Hofer ( <a href="mailto:Joachim.Hofer@gtz.de">Joachim.Hofer@gtz.de</a> )