Title The role of private sector researchers for improvement of the field and post-harvest performance of the grape crop in Egypt

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Abstract

Egypt has a highly developed fruit industry geared for the export of a large percentage of its products. From an economic viewpoint, table grapes rank first for export to Arab World and European countries. Citrus and many other crops including bananas, mangos, guavas, constitute another of Egypt major horticultural industries. Horticultural crops, particularly fruits are produced throughout Egypt. However, Alexandria and Behira areas are very important for grape production. Horticultural research on a national basis is at present being conducted mainly at several research institutes, all of which became part of a newly founded science centers, the Agricultural Research Center (ARC). The ARC is a statutory body with a mandate to conduct research, development and technology transfer along with several universities all over the country. Several private organizations also conduct research and development aimed at furthering the production of specific horticultural commodities. This research focused on grape production with funding coming from a private company working in cooperation with university members. Often the private sectors have good contact with industry, provide lower overhead costs than government agencies, and are flexible and experienced in their field. Flame seedless grape has been recently introduced to the Egyptian market. However, little is known about its specific post-harvest requirements for keeping quality. The objective of our project was to define and evaluate the post-harvest program in order to improve its keeping quality during cold storage. The grape samples were quick release fumigated (QRF) with different percentage of sulphur dioxide (SO2), pre-cooled and then after six levels and different quantity of commercial slow release fumigation pads (SRFP) were used during cold storage for 8 weeks in tow seasons. All samples were analyzed for their sensory, physiochemical and pathological characteristics. The results revealed that QRF treatments with 0.1% showed sensory, Physiochemical and pathological quality better than 0.5% treatments. Meanwhile, QRF with 0.1% along with 3.5 or 4.2 g SRFP resulted in the best keeping quality.