

Liquid pollination: New field technique to enhance the date palm production

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Abstract

Date palm pollination is one of the essential filed operations. Experts evaluate the importance of pollination in all cultivation operations as the most important operation. Pollination of date palm is carried out manually in the major date palm plantations.

With lack on manpower, and the increasing cost of pollination, some efforts was developed for the pollination using hand duster and motorized duster, despite the larger pollen volumes when dusters were used.

Date palm liquid pollination recently developed in Oman in collaboration with the ‘Development of Sustainable Date Palm Production Systems project in the GCC countries’ (ICARDA) proved to be good pollination technique for improving fruit setting percentage, gaining time, reducing cost and consequently improving the quality of dates.

Technical comparison between liquid pollination and the traditional hand pollination, showed no significant difference in fruit set. Using liquid pollination technology raises the following advantages of saving time and effort, reducing the quantity of pollen and labor costs and reducing the risk of laborers climbing accidents. The technique showed significant advantage over the hand pollination in terms of time, labor and number of date palms pollinated in large scale farms. The economic evaluation of the liquid pollination shows reduction of more than 50% of the cost of the operation. The technique is being successfully disseminated to all GCC countries within the project.

The major constraints regarding the use of this technology are the mechanical pollen extraction device is expensive which is not affordable by small farmers and the resistance of farmers accustomed with the hand pollination, to adopt the new technology especially small farmers with limited date palm trees number.