# Kinnow Waxing and Grading Plants in Fazilka and Sri Ganganagar Districts

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# PREFACE

India is the 2nd largest producer of fruits and contributes 12.6% of total fruit production of the world. Out of the total production of fruits and vegetables, nearly 75 per cent is consumed in fresh form, while wastage and losses account for 10-15 per cent. Hence, there is a need to reduce these losses, to fulfil the future demand, using appropriate post-harvest management practices.

Within India, citrus ranks third in area and production after banana and mango. Kinnow is a popular citrus fruit produced mainly in Fazilka, Sri Ganganagar (Rajasthan), Ferozepur, Faridkot, Amritsar and Hoshiarpur (Punjab) districts. The area under this crop is increasing continuously since 2004. The post-harvest losses in kinnow were earlier about 25-30%, however, the kinnow waxing, grading and packaging plants established in the areas of Punjab and Rajasthan has brought these losses down to about 10-12% in 2015.The losses occur due to improper handling during harvesting, handling, packaging, storage and transportation. Further, lack of storage facilities, good connectivity and unawareness among farmers towards post-harvest management, are the additional factors leading the losses.

The demand for the scientific and technological information on post-harvest handling of kinnowwas pre-requisite by the number of plant operators and owners for systematic management and loss reduction. As these losses can further be reduced with technological interventions,and systematic management, compilation of pre-hand information on the post-harvest management techniques of kinnow crop was undertaken.

This technical bulletin is published to enlighten the knowledge of scientific and technical information on various Kinnow pack house operations for the benefits of kinnow growers, entrepreneurs and processors. It comprises the industrial aspects of consideration while handling, waxing and grading of kinnow fruit. The information of bulk handling, sorting, washing, waxing and grading of kinnow using various machineries with details of manufacturers and suppliers of machines are also provided in this bulletin. The exhaustive information on well-established Kinnow waxing, grading pack houses in the area of Abohar, Fazilka, Malout and RIICO,Sri Ganganagar is collected after extensive survey and presented in this bulletin.

We express our sincere thanks to all who have directly or indirectly contributed in compilation of this information for the welfare of agrarian community. We are also thankful to Mr. Ravinder Sekhon, M/S Sekhon waxing plant, Abohar for their help, support and suggestions. Sincere thanks also goes to all the staff of HCP Division, CIPHET, Abohar and publication committee, CIPHET, Ludhiana for their constructive suggestions, affectionate attitude and encouragement for compilation of this bulletin.

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