

A DATE PALM SERVICE MACHINE FOR THE NEW MILLENNIUM

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In the last ten years, several attempts have been made to develop date palm service machines. A prototype machine has been developed by Department of Agricultural Engineering of King Saud University, Riyadh suitable for most farm situations to automate the various cultural operations on date palm trees including harvesting. The design and development of this machine and others developed by researchers were mainly focused on taking the workers to the top of the trees for performing the required operations. Some of the machines showed improved harvest quality and reduction in harvest loss. In this paper, we present a review of date palm service machines developed by researchers and the problems associated with them on safety, stability, speed, cost, and efficiency. Also we propose the need to develop a new date palm service machine, fully automated (Robotic machine) or semi-automated that would greatly solve the problems associated with the existing machines. This machine can perform all the required operations on date palm trees including harvesting without workers involvement.