

# EVALUATION OF DATE PALM MALES USED IN POLLINATION IN THE CENTRAL REGION, SAUDI ARABIA\*

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## ABSTRACT

Male palms used in pollination of date palms in the Central Region of the Kingdom of Saudi Arabia, were evaluated. The objective was to select highly potent male palms to raise standard male varieties. This evaluation involved about 600 males located in 209 date palm orchards in the different sects of the Central region.

Evaluation involved time of flowering, spathe characteristics (weight, length and width), strand characteristics (number, length and number of flowers/strands), and weight of pollen grains/spathe. The time of flowering differed from one male to another, and they also differed in both spathe and strand characteristics. The amount of pollen grains produced/spathe varied from one male to another, *i.e.* from 0.02-82.29 g/spathe.

In view of the above results, selection of males was based on the amount of pollen grains produced per spathe together with some other characteristics including weight and size of the spathes, number of strands per spathe and number of flowers per strand.

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**Key words:** Spathe characteristics, strand characteristics, pollen weight.

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## INTRODUCTION

In most date palm growing countries including Saudi Arabia, seedling males are used for pollination. These seedling males are highly variable, in the sense that they differ greatly in their growth, vigour, spathe characteristics and pollen quality (Nixon, 1959; El-Sabrou, 1979). Date palm growers use pollen that is readily available. As a result, yield and fruit quality of the palms, differ greatly from one year to another (Nixon, 1934, 1956; Ahmed and Ali, 1960; Al-Delaimy and Ali, 1969; Osman *et al.*, 1974). The growers now beginning to realize the need for selection of males.

An intensive research project, sponsored by King Abdul-Aziz City for Science and Technology, was initiated to evaluate different male palms that are used in pollination in the Central region of Saudi Arabia, then to propagate and multiply the promising males vegetatively with their offshoots.

## MATERIALS AND METHODS

This investigation was commenced in 1984, at the College of Agriculture, King Saud University, to evaluate male palms. The Central region was divided into 4 main sections, namely:

1. Riyadh and its suburbs.
2. Al-Kharj and Wadi El-Dawaser.

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