

Receptivity of Pistillate Flowers in Some Date Palm Cultivars in Riyadh Region

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Pistil receptivity was studied in 'Khudari', 'Nebut Seif', 'Seleg' and 'Sakaie' date palm cultivars in 1985 and 1986. Flower clusters were pollinated at 2-day intervals starting on the day of spathe cracking. Pollination was continued for 12 days. Results suggested that delaying pollination for 6-8 days after spathe cracking was usually safe, and that probably satisfactory fruit setting might be obtained for 10 days after the spathe cracking. A delay in pollination for more than 10 days, however, resulted in greatly reduced fruit setting.

The results showed that within the course of pollination during which the per cent fruit setting obtained did not differ significantly in most cases, there was a day on which maximal fruit setting was obtained and that this day differed among the cultivars and the seasons.

The traditional method of pollinating female date palm flowers is by inserting a number of male strands or a ball of cotton containing pollen into the inflorescence. Since this process has to be performed soon after the spathe cracking, all the inflorescences on one tree cannot be pollinated at the same time, i.e., pollination should be carried out at frequent intervals. To ensure maximal fruit setting, the pistils must be pollinated when they are receptive. The term "receptivity" is referred to as the length of time following the spathe cracking during which fertilization would take place. Varieties with a long period of pistil receptivity may be pollinated at less frequent intervals than those with a short period of receptivity.

There is some information in the horticultural literature suggesting that pistils do not remain receptive long, the longer the time of pollination is delayed beyond 2 or 3 days after spathe cracking, the lower the percentage of flowers set-