



RESEARCH PAPER

Effect of different modes of pollination in muskmelon (*Cucumis melo* L.)

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Abstract : The present study was carried out with the object of “Effect of different modes of pollination in muskmelon (*Cucumis melo* L.)” during summer 2020 and 2021 at College Farm, N. M. College of Agriculture, Navsari Agricultural University, Navsari (Gujarat). In the present experiment, the highest fruit set and fruit weight were recorded in Hand pollination (HP) (89.00% and 626.42 g, respectively), Open pollination (OP), Pollination by *A. mellifera* and pollination by the stingless bee. Whereas, in the case of absolute control, an 18.00 per cent fruit set and minimum fruit weight (221.62 g) were noticed. The highest horizontal and vertical diameter of fruit (35.59 and 37.71 cm/fruit, respectively) was noted in HP and OP and pollination by *A. mellifera* followed by pollination by *A. cerana* and pollination by the stingless bee. The maximum flesh thickness of fruit was recorded in OP (3.13 cm) and pollination by *A. mellifera* (2.86 cm) as compared to the pollination exclusion plot. The highest (89.60%) seed germination was noticed in pollination by *A. mellifera* and OP (87.60%). The highest sugar content was detected in OP (8.21 g/100 g), pollination by the stingless bee (8.07 g/100 g) and HP (8.06 g/100 g). The minimum (4.26 g/100 g) sugar content was recorded in Absolute control of muskmelon fruit.

Key Words : Pollination, *Apis mellifera*, *Apis cerana*, Stingless bees, Honey bees, Muskmelon

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