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Per se performance of pumkin (*Cucurbita moschata* Duch ex Poir) hybrids for yield and quality

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ABSTRACT : An investigation was conducted at Department of Horticulture, Agricultural College and Research Institute, Madurai during 2016-2017 to study the per se performance of pumpkin hybrids evolved with diallel analysis with thirty hybrids were obtained through diallel mating design with six parents *viz*., P_1: Acc.No.MDU CM23 - Thirumangalam local, Madurai district, P_2: Acc.No.MDU CM28 - Oddanchatram local, Dindugul district, P_3: (Acc.No.MDU CM29- Harur local, Dharmapuri distict, P_4: Acc.No.MDU CM12, Department of Horticulture, AC and RI, Madurai, P_5: Acc. No.MDU CM1 – Attur local, Salem district, P_6: Acc.No.MDU CM31 - Rajapalayam local, Virudhunagar district for yield and quality traits in pumpkin (*Cucurbita moschata* Duch. ex. Poir). The *per se* performance of parents and hybrids showed that the parents P_1 (8.46), P_4 (9.36) and P_6 (4.55) were high yielding and bigger sized fruits. Among the thirty crosses, six cross combinations *viz*., $P_1 \times P_3$ (12.38), $P_1 \times P_2$ (11.79), $P_1 \times P_5$ (8.18), $P_1 \times P_5$ (11.66), $P_1 \times P_6$ (8.55) and $P_4 \times P_1$ (12.08) recorded higher values for yield per vine, fruit weight (6.13 to 10.15 kg), vine length (6.54 to 8.22) , higher sex ratio (17.05 to 24.06). The smaller sized fruits were obtained in five cross combinations *viz*., $P_2 \times$ P1(1.54), $P_2 \times P_3$(1.78), $P_2 \times P_4$(1.79), $P_2 \times P_5$ (2.02) and $P_2 \times P_6$(1.68) with the fruit size ranged from 1.54 to 1.79 kg.

KEY WORDS : *Per se*, Pumkin, *Cucurbita moschata*, Hybrids, Carotene

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