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Per se performance of pumpkin genotypes during *Kharif* season under southern zone of Tamil Nadu

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ABSTRACT : The present investigation was carried out at Department of Horticulture, Agricultural College and Research Institute, Tamil Nadu Agricultural University, Madurai during *Kharif* 2015 with 32 pumpkin (*Cucurbita moschata* Duch. ex. Poir) collected from different parts of Tamil Nadu to identify small fruited high quality genotypes. The genotypes CM-9, CM 3, CM 14 (3.40) recorded more number of primary branches, the highest vine length was recorded in CM18, CM10, CM15 (10.66, 10.50, 9.67m) genotypes. The higher petioles were recorded in CM21, CM18, CM4 (26.63, 24.77, 24.50cm). The higher leaf length was recorded in CM5, CM11, CM1, CM9, CM8, CM23, CM2, CM31 (14.03 to 14.93cm) genotypes. The leaf breadth was highest in CM15, (22.00), the higher inter nodal length in CM17, (13.53cm) were recorded. The first male flower in seventh node was observed in CM23, CM1, CM32, CM30, CM4, the first female flower appeared early in CM12, CM26, (20 and 21st node), the days taken for male flowering was ranged from 47.20 to 54.20 days and for flowering ranged from 51.73 to 63.27 days. The early female flowering was recorded in CM29, CM20 and CM17. The lowest sex ratio was recorded in CM30 (13.58). The days taken for fruit maturity less in CM29, CM28 and CM5 (83.47, 87.27 and 87.53 days). The genotypes CM29, CM28 recorded higher number of fruits per plant (4.40 and 3.13) and less fruit diameter (17.80 and 18.33cm), fruit length (44.40 and 49.73 cm), fruit weight (0.97 and 1.11kg), 100 seed weight (10 and 15g). The highest yield per plant was recorded in CM12, CM23, CM3 (9.48, 8.54 and 7.60kg). The highest TSS content (10 ^{0}Brix) in CM13, acidity (0.78) in CM27, ascorbic acid (10mg) in CM23, moisture content (99%) in CM30, CM31, beta carotene content in CM29, and CM28 (0.99 and 0.89 mg). The CM29 and CM28 genotypes were identified as small fruited type among the genotypes studied.

KEY WORDS : Pumpkin, *Cucurbita moschata*, Genotypes, Per se performance, Carotene

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