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# Growth, yield and sex-expression as influenced by plant growth regulators in sponge gourd cv. PUSA CHIKNI

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**ABSTRACT :** The study on sponge gourd revealed that application of MH 400 ppm at 2-true leaf stage and 4 leaf stages significantly reduced the length of main axis (356.25cm) and increased the fruit girth (15.25cm). The treatment with NAA 200 ppm lowered the node number. The treatment with ethrel 500 ppm increased the length of ovary (6.77cm), length of fruit (26.50cm) and fruit volume (229.75cc) as well as weight of fruit (168.75g). The treatment of ethrel 250 ppm increased the number of branches per vine (13.75) and number of female flowers per vine (44.75) while, reduced the days to first female flower appearance (58.25) and lowered the male: female sex ratio (7.00:1) and increased the number of fruits per vine (25.75), fruit yield per vine (3.97kg) as well as fruit yield per hectare (17.68 t). Finally, it was inferred that ethrel 250 ppm was most effective in improving femaleness and yield of sponge gourd cv. PUSA CHIKNI.

**KEY WORDS :** Sex expression, Plant growth regulators, Vine, Internodes, Fruit yield

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