STANDARDIZATION OF SEVERITY OF PRUNING AND CROP LOAD ON YIELD AND QUALITY IN POMEGRANATE (*Punica granatum* L.) VAR. BHAGWA

**ABSTRACT**

*Key words*- Pomegranate (*Punica granatum* L.) var. Bhagwa, Pruning, Crop load

The present investigation to study the “Standardization of severity of pruning and crop load on yield and quality in pomegranate (*Punica granatum* L.) var. Bhagwa.” was carried out at farmer’s field near Junagadh Agricultural University, Junagadh, during the year 2015-2017. The experiment was laid out in a Randomized Block Design (RBD) with four replications. There were seven treatments comprising T₁ (15 cm pruning + 30 fruit retained per plant), T₂ (15 cm pruning + 40 fruit retained per plant), T₃ (15 cm pruning + 50 fruit retained per plant), T₄ (30 cm pruning + 30 fruit retained per plant), T₅ (30 cm pruning + 40 fruit retained per plant), T₆ (30 cm pruning + 50 fruit retained per plant) and T₇ (Control). The result of this experiment revealed that application of treatment T₂ (15 cm pruning + 40 fruit retained per plant) has enhanced the growth characters and gave maximum plant height (3.47 m), maximum number of shoots/branch (3.88), maximum length of shoot at 75 DAP (33.05 cm) and 150 DAP (48.05 cm). It has also given minimum thickness of fruit rind (5.39 mm), minimum fruit rind percentage (4.91 %).

The treatment T₄ (30 cm pruning + 30 fruit retained per plant) gave maximum fruit diameter (8.95 cm), maximum fruit weight (392.50 g), maximum hundred aril weight (44.48 g), maximum juice percentage (78.13 %), minimum fruit cracking percentage/plant (2.36 %), minimum fruit damage percentage by bacterial blight/plant (1.80 %), minimum fruits damage percentage by annar caterpillar/plant (2.08 %). In
case of bio-chemical parameters, maximum TSS (17.50 °Brix), minimum titrable acidity (0.37 %), maximum TSS/Acidity ratio (49.51), maximum reducing sugar (10.14 %) and maximum total sugar (17.62 %).

The treatment T₆ (30 cm pruning + 50 fruit retained per plant) gave maximum leaf area (10.50 cm²), maximum number of flowers/shoot (6.88), minimum number of male flowers/shoot (2.38), maximum number of hermaphrodite flowers/shoot (4.88), maximum fruit set percentage/plant (70.75 %), minimum fruits drop percentage/plant (1.92 %), maximum fruit yield/plant (16.93 kg) and fruit yield/ha (14.10 t/ha).

As far as the relative economics of the treatment is concerned the maximum net realization of Rs. 6,63,410 per hectare with highest 3.94 cost benefit ratio (CBR) was obtained by treatment T₆ (30 cm pruning + 50 fruit retained per plant).