



Research Paper

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Comparative studies in certain commercially important varieties of pomegranate (Vegetative growth, flowering, fruit set and yield)

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ABSTRACT : Field experiment was conducted at a farmer's field near Hiriyur, Chitradurga district to know the performance of certain commercially important varieties of pomegranate with respect to their vegetative growth, flowering, fruit set and yield. The experiment included six varieties viz., Bhagwa, Arakta, Ruby, MHP 7/2, G-137 and Ganesh. The results revealed that the Bhagwa variety of pomegranate was an outstanding variety for all the characters studied. Bhagwa variety recorded the maximum length of new shoot (30.93cm), maximum number of leaves per shoot (59.36 leaves per shoot) and higher leaf area per shoot (630.97 cm²/shoot). It produced more number of hermaphrodite flowers per shoot (4.03) and it was a high yielder with 147.90 fruits per plant and 18.19 tonnes fruits per hectare.

KEY WORDS : Vegetative growth, Flowering, Yield, Fruit set, Hermoprodite flower

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Pomegranate (*Punica granatum* L.) is an important arid zone fruit crop. It is being grown since ancient times for its fruit, ornamental and medicinal purpose and in recent times, it has emerged as a commercially important fruit crop. The hardy nature, low maintenance cost, steady and high yields, fine table and therapeutic values, better keeping quality and the possibility to put the crop into rest period whenever the water potential is low are some of the qualities which make the plant ideally suitable for semi-arid and arid regions. However, the performance of the plant will be excellent if maintenance is with protective irrigation. It is commercially cultivated in Maharashtra, Karnataka, Gujarat, Rajasthan, Uttar Pradesh, Andhra Pradesh, and Tamil Nadu. The major pomegranate growing districts in Karnataka are Bijapur, Bagalkot, Belgaum, Bellary, Chitradurga, Koppal and Gulburga. In the recent past, pomegranate has attained export potential and foreign exchange. Fruits are exported to Europe, Middle East, Africa, America and Asian countries. In Karnataka Chitradurga district stands fourth place in area and production. Chitradurga comes under central dry zone of Karnataka. Many

varieties are under cultivation in this region but evaluation and recommendation regarding their suitability for this zone has not been done. In this regard, present work was carried out to know the performance of different important varieties in this region.

RESEARCH METHODS

Field experiment was conducted at farmer's field near Hiriyur, Chitradurga district. In this experiment six varieties which were cultivated commercially in this region Ganesh, G-137, Bhagwa, Arakta, Ruby and MHP 7/2 which were multiple hybrid from Indian Institute of Horticulture Research, Bangalore. Ganesh was used as a control in this experiment. The design of experimental plot was Randomized Complete Block Design replicated thrice with two plants per replication. For observation of shoot length, number of leaves per shoot, leaf area per shoot, number of flowers, fruits set per shoot were taken by randomly selecting twenty shoots in each plant.

RESEARCH FINDINGS AND DISCUSSION

In the present study Bhagwa variety emerged as highly