

# Effect of split application of N and K on growth and fruiting in Ganesh Pomegranate (*Punica granatum* L)

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## ABSTRACT

In case of reproductive parameters, higher split application affected flowering, however, the fruit set increased with two split. The highest number of fruits, fruit weight were observed in four split. The rind became thicker. Higher nitrogen and potassium content were observed in leaf, the juice percentage was maximum, TSS and TSS: acidity ratio also observed in four split.

**Key words :** Pomegranate, Fruit weight, Juice, Ascorbic acid, Fruit colour, Soft aril in four split.

Pomegranate (*Punica granatum* L) belonging to the family Punicaceae, is one of the favourite table fruits of tropical and sub-tropical regions. The fruit is a native of Iran and is extensively cultivated in mediterranean region since ages specially in Spain, Morocco, Egypt and Afganistan.

In India pomegranate is cultivated in the states of Gujarat, Karnataka, Tamil nadu, Uttar Pradesh, Haryana, Andhra Pradesh and Maharashtra which accounts for maximum area (88500 ha) particularly in Ahmednagar, Solapur, Satara, Sangli, Pune.

In Karnataka Pomegranate is cultivated on an area of 12700 ha with an Annual Production of 124900 tonnes (Anon., 1990). The area of Pomegranate in Karnataka is found in Bijapur, Tumkur, Kolar, Belgaum, Dharwad, Chitradurga, Bellary.

Ganesh which is a prolific bearer bears medium size fruits with soft seeds, pinkish red arils and sweet juice with agreeable taste.

Absence of standard fertilizer practices leads to undersize fruits.

## MATERIALS AND METHODS

The experiment was conducted on farmers field near Regional Research Station, Bijapur.

Bijapur is located in Northern Dry zone of Karnataka state at 16 49'N latitude, 75 42'E longitude at an altitude of 593 M MSL. As per the mean annual meteorological data of 10 years, the mean annual rainfall at Regional research Station, Bijapur is 586.6 mm which is distributed in 42 rainy days. The maximum rainfall of 240.7 mm was received in 6 rainy days in August followed by 228.4 mm

in 11 rainy days in September. Out of the total rainfall 45.56 per cent was received during *kharif*, 40 per cent during *rabi* season and 11.57 per cent during Summer Zaid. The highest monthly temperature of 40.8°C, mean minimum of 16.4°C were observed in May and December, respectively. The monthly maximum relative humidity of 86.08 per cent was observed in September followed by 86 per cent in August and minimum of 53 per cent in March.

In 1997, the total rainfall of 481.3 mm was received which was distributed in 37 days. The highest mean monthly temperature of 38.6°C was observed in May and lowest 16.6°C in January and relative humidity of 88 per cent was observed in August.

### Treatment details:

The treatment comprised of applying NPK fertilizers

Treatments	No. of splits	Time of application
400:200:200 of NPK g/plant (RDF)	1 dose	1 <sup>st</sup> week of March
400:200:200 g NPK per plant	2 doses (2 month interval)	1 <sup>st</sup> split – 1 <sup>st</sup> week of March II split in 1 <sup>st</sup> week of May
400:200:200 g NPK per plant	3 doses – (1 ½ month interval)	1 <sup>st</sup> week of March, 3 <sup>rd</sup> week of April, 1 <sup>st</sup> week of June
400:200:200 g NPK per plant	4 doses (at an interval of one month)	1 <sup>st</sup> week of March, 1 <sup>st</sup> week of April, 1 <sup>st</sup> week of May, 1 <sup>st</sup> week of June.