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The mango (*Mangifera Indica* L.) is the chief commercial fruit cultivated throughout the country and grown over an area of 0.97 million hectares (42.6% of total area under fruit), the production of fruit is approximately 40% of total fruit production in the country (Chadhā, 1989). The total production of mango in the world estimated to be slightly above 13.44 million metric tonnes. India is being largest producer amounting of above 70% of total world production out of total fruit production of 23.70 million tonnes, mango accounted for 9.337 million tonnes during 1985 (Chadhā, 1989). It is grown in various states namely, U.P. rank at the top in area with 39.92% of the total area followed by Andhra 13.71% and Bihar 12.79%. West Bengal Orrisa are also the important producing states. The mango has the same position in the tropics as it is enjoyed by the apple in the western countries. The mango fruits have delicious taste with attractive aroma & excellent
flavour, delightful fragrance. It is nutritive and full of minerals and vitamins. It is a rich source of Vitamin A and C. The food value in calories is higher than many grain crops. It is utilized at all stages of its development, unripe and ripe fruits are greatly used in preparation of a variety of products, recognised as one of the best in the world's market. No wonder, it is called the "King of fruits".

Indian mangoes have captured the foreign markets and in recent years earned a lot of foreign exchange. It is exported to nearly 20 countries, while its products to nearly 42 countries of the world. At present the varieties 'Alphanso' (growing Maharashtra, Gujarat and Karnataka) and Deshehari (Uttar Pradesh) are being exported to Afghanistan, Bahrain, France, Kuwait, Malaysia, Nepal, Qatar, Singapore and U.K. Recently the export of fresh mango fruits has increased considerably. From 1200 tonnes in 1969-70 to (1983-84) 12,500 tonnes valued at Rs. 110 million. The export potential of the processed products has a brighter future than of fresh fruit. According to Processed Foods Export Promotion Council, the total production of processed products of mango is about 44,000 tonnes.
(1983-84) out of which 35,611 tonnes valued at Rs 310 million is exported. Mango nectar and mango pulp export in particular have substantial scope, especially in south-east Asia, Europe and U.S.A.

Mango is under cultivation since antiquity, its culture involves many problems. But due to one or more problems the area under its cultivation is not increasing at desired pace. The most hazardous problem is alternate bearing habit of the crop. For this reason, it is seen that neither the grower is interested to increase the input nor the treading are interested in developing a study market, as the erratic bearing of mango is beyond the predication for profit.

Growth behaviour in mango tree is rather peculiar unlike many other fruits, growth in mango in the course of season is periodic rather than continuous, i.e. successive period of growth alternating quiscence. The appearance of new growth is termed as flush. The flesh period varies with varieties, climatic conditions, cultural practices, age of the tree, amount of the crop born by the tree previously. Each flush initiates at first, grows, stop and break out again till it finally ceases. The magnitude of growth during successive years varies strictly according to genotype and environment (micro climate) interactions.

The process of growth and development of mango shoots
has been recognised to undergo distinct stages before the terminal bud transforms into reproductive one during the following season. These stages are shoot elongation stage or rapid vegetative phase, growth cessation phase, shoot maturation phase or ripeness of flower stage and then the flower initiation stage. Generally during the rapid vegetative stage the new shoots are produced as extension growth of the previous season shoots during the month of February and March under Varanasi conditions. The vegetative growth continues up to August and September though not in the form of shoot elongation but as increases in shoot thickness and then these shoots cease to grow in any manner which may be said as the growth cessation stage.

In all its phasic development in mango there is the 'on' and 'off' year phenomenon becomes a function of C/N ratio of the shoot essentially requiring a distinct 'rest period' to achieve it. Thus after the harvest of fruit, the July-Aug. flush does not flower in the following flowering season on account of missing the required resting and ripening time. This season is called 'off' year. Later on, these shoot get full time for rest and maturity to transform themselves into reproductive shoots. in the coming spring, thus, set in the 'on' year.
Flowering in mango is preceded by the differentiation of the flower bud in the shoot. The time of flowering in different regions is mainly governed by the local climatic conditions. In Andhra Pradesh (Rayalaseema) and the south Konkan on the west coast of India, the flowering may start as early as November to December and in northern India, mango flowers from Feb. to March and the period of full bloom may be some time during March. Thus, under milder climatic conditions of the southern and western India, mango may start flowering from December itself, whereas under extreme climatic conditions of the north the flowering time is comparatively more precise and late (February March). More of the commercial varieties of mango show the same pattern of bearing (biennial) yet none can be so defiant as Langara. Langra variety is most popular for its excellent quality. Thus are vigorous and spreading, wide adoptability and scion characters very much dominant. Self incompatibility is also found in Langra and it is cross incompatible with Alphonso, Bombay gree, Chousa, Fazli, Rataul, Safeda
Malihabad and 'Surkha Burma'.

Since down of agriculture, one of man's principal aims has been the promotion and control of plant growth. These two aspects of his work with plants in the struggle to increase crops are by no means synonymous. He was soon to realise that the promotion of vegetative and leafy growth does not always produce the best result in terms of fruits and seeds. To control the development pattern of plant there was some chemicals which have brought new possibilities of the delicate adjustment in plant physiology and these are known as growth regulators. These substances produce various effects upon plants and plant parts through their action on the growth processes of the plants.

Attempts to induce early flowering, improved fruit set, control fruit drop and also improved fruit quality have been made by the application of growth regulators from time to time to suit the demand of individual local condition. These growth regulators which improve fruit set at one concentration and act as a deblassing agent at the other, can be employed for commercial application in improving the yield capacity of horticultural crops.

With the continued development in the field of auxin it has been more evident that the concept of the
growth hormone in plants must be expended to a concept of the hormonal control of growth, development and metabolism. The streams of flow of the growth hormone from each on the plant extremities, control not only the growth characteristics of plant, but they also control the differentiation of intimate roles in the reproductive function of flower initiation, pollination, embryo development etc. and determine to a large extent the morphological constitution of the plant.

During the past few years. The group of compound known as gibberellins has excited great interest in this field. These compound have produced striking growth stimulations in many plants, exogenous application of gibberellic acid reduces flower bud initiation in a wide range of fruit crops such as apple, pear, citrus and mango. This inhibitory action is surprising because many of these fruit crops initiate flower bud during long days, and gibberellins are active as flower promoter in long day plants. Plant growth regulators are claimed to bring about early physiological maturity of shoots. Increase in the length and weight of fruit as well as improvement in fruit quality have been achieved by Gibberellin sprays. The use of promalin (GA4+GA7+BA) helps in achieving the desired shape in Delicious apple (Gil and Crisosto, 1983). Likewise, an increase in
fruit weight in apple is ascribed to GA application (McLaughlin and Greene, 1984). Thus Gibberllic acid in plant activities like polar transport, root initiation, inhibition of lateral buds, delay in leaf abscission are negatively correlated with GA. Gibberllins overcome genetic and physiological drawfism, promote seed germination and break dormency affect elongation of cells and induce partheno carpy in certain unfertilized ovaries, hyponasty of leaves and increase maleness to femaleness.

Ethylene affects root formation in many ways, hastens blanching, accelerates abscission, inhibits elongation of root and shoot and it also induce flowering (in pineapple). It is used for colouring lemons, loss of chlorophyll of Oranges and acceleration of ripening of different fruit. Hence, keeping the view the above consideration in mind an experiment were carried out to with the following objectives.
1. To study the effect of NAA, $GA_3$ and Ethrel on flowering.
2. To study the effect of NAA, $GA_3$ and Ethrel on fruit set.
3. To study the effect of NAA, $GA_3$ and Ethrel on fruit drop.
4. To study the effect of NAA, $GA_3$ and Ethrel on fruit retention.
5. To study the effect of NAA, $GA_3$ and Ethrel on fruit quality and self life.