

Application of Ethylene in Safed Velachi Banana as Per the Market Demand**Gaonkar Y. A¹, Parulekar Y. R², Haldvanekar P. C.³and Patil R. S.⁴**¹Ph.D Scholar, ² Assistant professor, ³ Professor, ⁴Associate Professor, Department of Horticulture, Dr. Balasaheb Sawant Konkan krishi Vidyapeeth, Dapoli (M.S.)**SUMMARY**

The Maharashtra is a fruit bowl of India and banana is a most acceptable fruit for dessert purpose. It has year round demand. But it favours different factors viz. varietal characters, type of use, consumer demand, traditional aspects, medicinal value as well as physiology and scientific aspects. All these factors have direct impact on market demand and acceptability. Therefore, ethylene is a ripening hormone commercially used in banana for earliness in ripening. But in case of rural places, farmers cultivating banana wish to export their produce to distant market. In that situation ethylene play important role in ripening of banana as far as the market distance and consumer demand are concerned. Precise use of various concentrations of ethylene on ripening of Safed Velchi Banana will surely suffice the consumer demands in proper, time, place and circumstances and fetch higher market price.

INTRODUCTION

Banana (Musa paradisica L.) is a large herbaceous perennial monocot plant which belongs to the family Musaceae. Banana could be considered as “poor man’s apple” and cheapest among all fruits in the country. Banana is a rich source of carbohydrates, vitamins A and fair source of VitaminC, B₁ and minerals. The nutritive value of banana has been appreciated for a very long time and it provides a more balanced diet than many other fruits. From the nutritional point of view, banana has a calorific value ranging from 116 calories per 100 g and is closely comparable with potatoes but digested more easily (Gopalan et al., 2004). There are traces of potassium, copper, iodine, manganese, magnesium, sodium, zinc and cobalt as well. In Maharashtra, banana is a promising crop, because each and every part in Maharashtra cultivated different varieties viz., Grand naine, Basrai in Jalgaon, Ardhapuri in Marathwada and Safed Velchi in Konkan. Safed Velchi is considered a good quality fruit for table purpose and is cultivated in the Thane and Nasik districts of Maharashtra. It is grown under the shade of arecanut gardens in the South Karnataka districts of Karnataka. In konkan region of Maharashtra is characterized with undulated hilly terrain with hot and humid climatic conditions. In such a climatic condition suitable variety of Banana is Konkan Safed Velchi release by Dr. BSKKV Dapoli. The variety is gaining popularity among the farmers especially as an intercrop in coconut based cropping system. Due to its excellent quality, a fruit gets higher prices in market as compared to Grand Nain a leading commercial variety in Maharashtra.

**Research Finding**

Effect of different concentration of ethylene on safed velchi was undertaken at the Department of Horticulture, College of Agriculture, Dapoli. Safed Velchi banana bunches were harvested at 135 days after flowering, i.e. proper stage of maturity and utilized for application of different concentration (100,200,300,400,500ppm ethylene and lime application) of ethylene for ripening study at ambient storage condition. Different concentration of ethrel treatments helped to enhance ripening of banana fruit i.e. advancement of days. In commercial point of view if farmer wants to ripe banana as par market demand within 5to7 days after harvesting, then fruit be treated with 500ppm ethrel; within 8to10 days then treated with 400ppm ethrel; within 10to11 days then treated with 300ppm ethrel; within 11to12 days then treated with 200ppm ethrel;

within 12 to13 days then treated with 100 ppm ethrel; within 14to15 days, lime application treatments were found to be beneficial for ripening of Konkan safed velchi banana. Thus, ripening of banana fruits can be hastened by 6 days depending upon requirement by treading the fruits by various concentrations of ethrel. The present investigation carried out during winter season. It may be different results will be observed in summer season. It is due to rise in temperature leads to maximum ethylene evolution in fruit to reduce the shelf life of banana.

CONCLUSION

Application of ethylene hormone as per the demand and distance of market will help commercial banana growers for fetching better price in the market as well as minimum loss during transportation and storage.

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