



Dragon Fruit- An Emerging Exotic Super Fruit

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Dragon fruit a recently introduced super fruit in Indian market. It is getting tremendous popularity among growers because of its attractive fruit colour and mouthwatering pulp with edible black seed imbedded inside the pulp, nutraceutical value, excellent export potential and highly remunerative in nature as produces yield from 14- 16 months after planting of stem cutting and yield up to 20 years with long crop cycle from May – December in different flushes in each and every year. It is also a part of urban horticulture because of its beautiful nocturnal showy white flowers which can be used in moon garden. *Hylocereus costaricensis*, red fleshed pitaya and *H. undatus*, a white fleshed pitaya is two major species growing under Indian condition especially in West Bengal. This review deals with the knowledge regarding cultivation of dragon fruit based on literature and some of research findings in Indian condition so all become familiar with dragon fruit.



Propagation and planting density

H. undatus and *H. costaricensis* can be multiplied naturally and very easily by cutting off the stem as soon as it touches the ground . It takes 14 months to come to bearing under west Bengal condition; however duration may vary in different locality for different climatic conditions. Seeds can also be used as propagation material but it will take 3 years to come to bearing. The hardiness of the crop enables it to survive under field condition. Provided cuttings are at least (50 to 70) cm in length and are regularly watered in order to ensure satisfactory rooting. If all these conditions are provided around 90% of the cuttings ensure rooting. The distance between plants depends on the type of support used. With a vertical support a 2–3 m distance between planting lines is required which could accommodate 2000 and 3750 cuttings/ ha, at the rate of three cuttings per support is planted



Scenario of Dragon fruit cultivation in India

Dragon fruit is a semi epiphytic vine plant which can climb naturally to any natural or artificial support they meet (trees, wood or cement posts, stone walls, etc.), due to presence of aerial roots. Many different types of support are used, but mainly vertical supports made of wood or cement and iron posts and on horizontal and inclined supports. Plant growth is rapid and continuous, though possibly with a vegetative rest period when the climatic conditions are unfavorable (drought and very low temperatures).



Mineral nutrition and irrigation requirement

For better yield performance of the crop proper nutrient requirement is needed. The pitahaya's root system is superficial and can rapidly assimilate even the smallest quantity of nutrients. Mineral and organic nutrition is particularly advantageous and, when they are combined, their experiment conducted in Bidhan Chandra Krishi Viswavidyalaya for different combination of N, P, K fertilizer doses revealed the dose of N 450 P₂O₅ 350 K₂O 300 perform best result for yield and quality.

Conclusion

From the above article it is concluded that commercially, dragon fruit appear to have numerous selling points; they are attractive in shape and colour, and very good nutraceutical property which attract growers from all over the India. The red flesh species i.e *H. costaricensis* are additionally rich in betalains, meeting the increasing trade interest for antioxidant products and natural food colourant. Fruits are easy to keep fresh under room condition. Several processed products can also be made from the pulp of the fruit. The crop is hardy and can survive in any type of climatic condition favourable for flowering and fruiting and soil condition provided with good drainage. In general, they produce fruits quickly and few diseases and pests are encountered at the present time. This fruit crop needs research in different aspects.

References

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