

Dragon Fruit: An Opportunity & a Potential Solution to Many Problems

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Ministry of Agriculture & Farmer Welfare had recently organised the National Conclave on Dragon Fruit on 7 July 2022. The conclave was presided over by Secretary of ministry of Agriculture & Farmer Welfare Shri. Manoj Ahuja (IAS). The Central Government has set the ambitious target of increasing the total Dragon Fruit cultivated area upto 50,000 Ha. which currently is only 3000 Ha. The Centre has decided to give thrust to increasing area, production and productivity, marketing and branding of dragon fruit. Secretary of Ministry of Agriculture and Farmer Welfare has proposed to develop a five year Annual Action Plan (AAP) in collaboration with states to promote overall development in cultivation, Post-Harvest Management, marketing, processing and value-addition.

Organization of National -level Conclave along with collaboration with states speaks volumes of potential that the dragon fruit has. Currently India imports 15,491 tonnes of dragon fruit, most of which is imported from Vietnam. Being a hardy crop, highly resistant to pests and diseases, having higher phenolics and flavonoids content, tolerance to arid conditions and salty soils this crop offers tremendous scope and opportunities in horticulture.

Introduction

Production of dragon fruit in India commenced in early 1990s where this fruit was usually grown in home gardens. Native to central America and Mexico dragon fruit is rich in antioxidants like flavonoids, phenolic acid and betacyanin. In India three types of dragon fruits are cultivated on commercial scale.

1. Red skin- white pulp : *Hylocereus undatus*
2. Red skin- Red pulp : *Hylocereus polyrhizus*
3. Yellow skin- White pulp : *Hylocereus selenicereus*

This fruit has gained popularity among farming community due to its low maintenance, profitability and low requirement of inputs. The plant is highly resistant to pests and diseases and hardly require any additional doses of fertilizers. However additional fertilizers have proved to increase the yields but plant grows well even in the less fertile and arid soils.



Cultivation

Cultivation can either be done in June-July or Feb-March. Cultivation in June-July is more preferable as farmers faced less problems when cultivated in June-July. Generally 12x6 m or 12x8m distance is maintained between each pole. Each pole is planted with four plants. Spacing of 12x8m is more preferable as it allows intercropping of coriander, capsicum, tomato etc. ICAR-NIASM, Baramti has recently experimented intercropping of moringa- 100-120 plants / acre which helped to increase main yield and also augment extra income to farmers.



Generally, 2800 plants can be planted in an acre field. Seedling of plant costs Rs. 40 to 70. A total of 700 poles can be placed in an acre of field. Application of organic fertilizers and dolomite has shown beneficial effect on plant.

Flowering starts during May-Aug. The flowers are scented and bloom at night. Harvesting takes place after 30-40 days after fruit set. Yield starts from very next year. However economic yield is obtained only after 3-4 years. Harvesting after 1 year yields 500-600 kgs of fruits in one acre. But onwards 3-4 year the plants yield 5-6 tonnes fruits per acre. Farm gate price received last year ranged between Rs.80-120 per Kg.

Health Benefit

The fruit has low calories. It is rich source of zinc, magnesium, calcium. It contains pre-biotic fibres that are good for gut health. It is known to reduce insulin resistance and is considered good for diabetic patients.

World Dragon Fruit Market

Asia- Asia is the largest market for dragon fruit. Almost 70% of dragon fruit is consumed by China. The demand is driven by the Chinese belief that dragon fruit is being associated with good fortune. Apart from China, demand in Indonesia, Thailand, Philippines has also increased.

Europe- Europe being known to be leading market for fresh fruits & vegetables and also opened to new processed products. Even though prices are high, still there is promising demand from people of Europe.

US- Dragon fruit has huge demand from Asian and Vietnamese communities in USA.

World Dragon Fruit Suppliers

Red skin- white pulp dragon fruits are supplied from Vietnam, Thailand. Red skin-red pulp Dragon fruits come from Israel and Malaysia. Yellow skin-white pulp fruits comes from Colombia. Major suppliers from Asia are Vietnam, Thailand, Sri Lanka. Israel is major producer in Middle-East region. It is the largest supplier to European countries. In American continent Mexico and Colombia are significant producers. Currently Vietnam leads the world production of dragon fruit where this crop occupies 4000 Ha of cultivated area. Thailand

stands second and Israel stands 3rd in the ranking. Vietnam supplies majority of its dragon fruit to China.

Current Status of India

Currently dragon fruit occupies 3,000 ha of land in India. This crop is relatively new but has attracted various farmers due to its low maintenance cost. Gujrat, Haryana govt are offering special subsidies and attention for promotion of dragon fruit. Govt of Maharashtra is offering subsidies through MIDH (Mission for Integrated Development in Horticulture) scheme. Mizoram tops in the total production in country.

Earlier in June 2021 a consignment from Tadasar, Dist-Sangli, Maharashtra, exported dragon fruit to Dubai with the support of APEDA. For the first time Dragon Fruit was exported to London, UK and Bahrain by Gujrat and West Bengal farmers in 2021 from APEDA registered duck houses in Bharuch in Gujrat and West Midnapore, West-Bengal.



Conclusion

Dragon fruit offers huge opportunities in value addition and processing in domestic as well as global market. Dragon fruit is truly the next big thing in Indian horticulture. It offers solutions to many of the agricultural challenges the farming community is facing today—rising cost of agricultural inputs, shortage of water, labours and degradation of land. With government's intervention there will be both rise in domestic consumption as well as creation of opportunities in the value addition, processing and export. This crop will no doubt go long way in increasing farmer's income and inspire farming community to take new role in entrepreneurship, marketing, branding and value addition.

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