



Indian Farmer
Volume 9, Issue 10, 2022, Pp. 441-444.
Available online at: www.indianfarmer.net
ISSN: 2394-1227 (Online)

ORIGINAL PAPER



Dragon Fruit – Next Big Thing in Indian Fruit Market

Kushagra Sharma, Deepak Thorat and Dipika Mal

Lovely professional University, School of Agriculture, Phagwara, Punjab, Pin 144411

Corresponding author: dipika.21885@lpu.co.in

Article Received: 12 October 2022

Published Date: 16 October 2022

INTRODUCTION

Dragon fruit, also known as pitaya, is a climbing cactus belongs to the Cactaceae. The dragon fruit's bloom is so exquisite that it has earned the nicknames "Noble Woman" or "Queen of the Night." (Jadhav *et al.*, 2022) The fruit is additionally known by the names Strawberry Pear, Dragon Fruit, Pithaya, Night Blooming Cereus, Belle of the Night, Conderella Plant, and Jesus in the Cradle. Since the fruit's skin has bracts or scales, the term pitaya, which means "the scaly fruit," was given to the fruit. (Perween *et al.*, 2022). Due to its ease of cultivation and several health and therapeutic benefits, dragon fruit (*Hylocereus undatus*) is emerging as a superfruit, even for poor degraded land. Due to the huge demand for dragon fruit both locally and internationally, dragon fruit plantations are affordable for both small and large scale producers and corporations. Its highly appealing colour, mouth-melting pulp, edible seeds of a dark-colored seed embedded in the pulp, and exceptional nutritional value draw producers from all over India to this fruit crop, which has its origins in Mexico, Central America, and South America. The major benefit of this crop is that, once planted, it will continue to thrive for nearly 20 years, and one hectare may support about 800 dragon fruit plants. (Perween *et al.*, 2022). The article suggests medicinal and nutraceutical properties of dragon fruit.

Types of Dragon fruit in India - *Hylocereus undatus* (Red skin with white flush), *Hylocereus polyrhizous/ Hylocereus costaricensis* (Red skin with red flush), *Hylocereus megalanthus* (Yellow skin with white flush) (Jadhav *et al.*, 2022). *Hylocereus polyrhizus* (Red dragon fruit or red pitaya), one of its many species, is particularly nutrient-dense because it offers a variety of bioactive ingredients, such as a wide spectrum of antioxidants, phytonutrients, minerals, and enzymes. (Barirah *et al.*, 2018). Organic acids,

proteins, minerals like potassium, magnesium, calcium, and iron, as well as vitamin C, are all present in mature dragon fruit. (Barirah *et al.*, 2018).

Nutritional value of Dragon Fruit: Proximate nutraceutical values in g or mg per 100 g edible portion of Dragon Fruit are as mentioned in table no 1.

Table no 1: Proximate nutraceutical values in g or mg per 100 g edible portion of Dragon Fruit

Nutraceutical Values (g or mg per 100 g)	Content
Moisture	(85.3 %)
Protein	(1.1g)
Fat	(0.57g)
Energy (Kcal)	(67.7)
Carbohydrates	(11.2g)
Glucose	(5.7g)
Fructose	(3.2g)
Sucrose	(not detected)
Sorbitol	(0.33mg)
Vitamin C	(3.0mg)
Vitamin A	(0.01mg)
Niacin	(2.8mg)
Ca	(10.2mg)
Fe	(3.37mg)
Mg	(38.9mg)
P	(27.75mg)
K	(272.0mg)
Na	(8.9mg)
Zn	(0.35mg)

Table 2: Proximate nutraceutical values in g or mg per 100 g edible portion of Red Dragon Fruit

Nutraceutical Values (g or mg per 100 g)	Content
Moisture	(82.5-83.0%)
Protein	(0.159-0.229g)
Fat	(0.21-0.61g)
Crude fiber	(0.7-0.9g)
Ascorbic acid	(8-9mg)
(Jaafar <i>et al.</i> , 2009 and Perween <i>et al.</i> , 2018)	



Figure 1: Trellis system of Training in Dragon fruit



Figure 2: Dragon fruit mature plant

DIFFERENT USES OF DRAGON FRUIT

- Young *Hylocereus undatus* stems and fresh flower buds can be consumed as vegetables, while dried flower buds can be converted into a homemade medication.
- Dry flowers are utilised as fresh table fruit in Taiwan, as well as being consumed as vegetables, juice, jam, or preserves depending on taste preferences.
- It is widely used as juice and in fruit salads at restaurants.
- Due to its high vitamin C content, dragon fruit eating regularly aids in the prevention of cough and asthma, as well as the speedy healing of cuts and wounds. However, the high concentration of vitamin C in dragon fruit is crucial for boosting the immune system and activating other antioxidants in the body.
- Used as a food colouring agents, consumption of Dragon fruit mostly as fresh fruit as relieving thirst due to it contains high water level compared with other nutrient levels.
- Dragon fruit is also abundant in flavonoids, which work to address cardiovascular issues and vaginal discharge bleeding issues.
- Despite being high in fibre, dragon fruits help with digestion. Also abundant in the B vitamin family (B1, B2, and B3), which has significant health benefits, is dragon fruit. Vitamin B1 aids in enhancing energy generation and carbohydrate metabolism, while Vitamin B2 in dragon fruit serves as a multivitamin but also helps to restore and enhance appetite loss. Additionally, the harmful cholesterol-lowering effects of vitamin B3—which is contained in dragon fruit—help to

promote smooth, moisturised skin. Furthermore, it enhances eye health and lowers blood pressure.

- According to research, dragon fruit's glucose content aids in lowering blood sugar levels and improving overall health.
- Due to the high levels of calcium and phosphorus in it. It plays a crucial function in tissue creation, strengthens bones, and creates strong teeth. It was established from the study's findings, which involved a group of female white mice, that dragon fruit can raise haemoglobin levels via increasing haemoglobin concentration (Barirah *et al.*, 2018).
- Research has demonstrated that the polyphenols, dibetanin, and flavonoids found in dragon fruit have an anti-cancer impact (Domenico Prisa, 2022).

CONCLUSION

According to studies, dragon fruit has the ability to prevent a number of human diseases like cancer, digestive issues, and diabetes. Therefore, dragon fruit can be categorised as a super fruit with medical properties that can be utilised instead of medications based on chemicals. However, more research on dragon fruit is required to validate and advance our understanding of its therapeutic benefits for the treatment and prevention of a variety of ailments.

REFERENCES

- Barirah, Runjati, Melyana N. W, Pujiastuti R. S. E. Differences Effect of Supplement Red Guava Juice with Red Dragon Fruit Juice to Increase Hemoglobin Levels in Postpartum Mother with Anemia. 2018. *International Journal of Science and Research*. 7(9), 374-378.
- Domenico Pris., 2022. Pitahaya a New Superfood: Cultivation Methods and Medicinal Properties of the Fruit. *Indian Journal of Natural Sciences*. 17(70), 37731-37739.
- Jaafar R. A., Rahman A. R. B. A., Mahmud N. Z. C. and Vasudevan R. Proximate analysis of dragon fruit (*Hylocereus polyrhizus*). *American Journal of Applied Sciences*. 2009. 6(7), 1341-1346.
- Jadhav, S. D., Kakade, V., Nangare, D. D. and Chavan, S. 2022. Dragon Fruit: An Exotic Fruit of India. *Vigyan Varta* 3(6), 104-109.
- Perween T., Mandal K. K and Hasan M.A. 2018. Dragon fruit: An exotic super future fruit of India. *Journal of Pharmacognosy and Phytochemistry*. 7(2), 1022-1026.