

## Health Importance and Value Chain Management of Banana Powder

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### SUMMARY

Natural-source products have been utilized for thousands of years. Bananas are well-known for their traditional, medical, and nutritional use. Bananas have strong therapeutic qualities in addition to their distinctive nutritional profile. Bananas are one of few fruits whose entire flesh and peel may be processed into banana chips, banana powder, banana biscuits, and, most often, banana juice. Banana powder is used as an ingredient and as an addition in a variety of culinary items. Banana powder has an excellent nutritional profile. Minerals (potassium, magnesium, manganese, calcium, chloride, and phosphorus), vitamins (Vitamin C, Vitamin B Complex), and carbohydrates (potassium, magnesium, manganese, calcium, chloride, and phosphorus) are abundant.

### INTRODUCTION

Among the fruits grown in India, banana is the most widely produced and consumed. It is referred to as the "common man's fruit". It's both nutrient-dense and tasty. India is the world's leading banana-growing country. A 25 percent annual production share of overall production. Bananas are one of the most adaptable and commonly consumed fruits in the world today. Although bananas may be eaten raw, certain kinds are usually cooked first. The taste of the flesh can range from starchy to sweet, and the texture from firm to mushy, depending on the cultivar and maturity. However, certain high-value goods are utilized. Banana powder, banana jam, banana puree, banana drink, banana flour, and banana vinegar are value added products of banana. Banana pulp is used to make banana powder. It has a large amount of banana essence and is a significant source of carbohydrates and calories. The powder has also been shown to be effective as a general indigestion therapy.



**Fig: Banana Powder**

### History

Banana powder has been widely used in infant formula since the early 1900s as a means of keeping babies healthy. Along with dried banana "figs", it was called one of the "important industries of the West Indies" at this time period in 1916. During the 1930s, the United Fruit Company started making a product called Melzo, which contained banana powder as the major component. Melzo was promoted as a "health meal for children and old people, as a corrective for certain indigestions, and as a revitalizer for those who are sluggish mentally or physically" due to the beneficial characteristics of banana powder. At BARC, a unique lab-scale technique for

extracting banana juice and producing banana powder as a by-product has been developed. Banana powder (BP) was added to hard-red spring wheat (HRSW) flour intended for yeast-leavened bread formulation.

### Health Benefits

Banana powder has a moderate laxative effect, making it ideal for children's illnesses. It aids in the treatment of dysentery. It may be a good supplemental food for infants and utilized in their meals for nutrition treatment when combined with milk and sugar. In 1984, Indian scientists were able to extract a portion of the "antiulcer chemicals" present in banana powder, resulting in a powder that was "300 times more active" at preventing stomach ulcers. It was eventually revealed that the banana powder stimulated cell development, allowing for faster healing of ulcers that had previously occurred.

Source	Nutritional value per 100 gm	Source	Nutritional value per 100 gm
Carbohydrates	22.84 g	Vitamin B <sub>2</sub>	0.073 mg
Fat	0.33 g	Vitamin C	8.7 mg
Protein	1.09 g	Potassium	358 mg
Vitamin B <sub>1</sub>	0.031 mg	Energy	90 kcal (370 kJ)

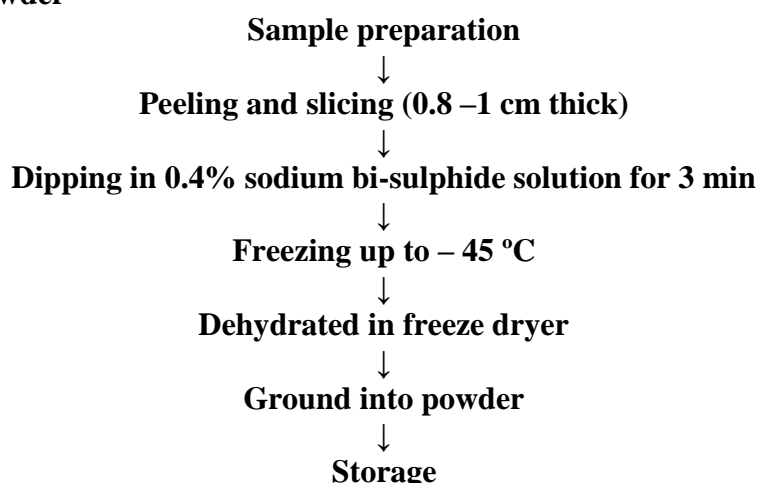
### Nutritional value

Banana powder is high in carbohydrates and a good source of vitamin B, calcium, iron, and potassium, making it a major food. It is quickly digested and minerals are efficiently absorbed when cooked. Banana powder is high in nutrients and fiber. Banana powder has a high starch content.

### Manufacture

Banana powder is made from banana pulp that has been mechanically chopped and then processed with a colloid mill utilizing hydraulic shear to convert it into a paste. After that, sodium metabisulfite is added to enhance the paste's yellow color. The paste is subsequently dried by spraying or drum drying, with the latter being more popular because no paste is wasted during the drying process. Drum drying also yields around 2% extra powder and ensures that it is properly dried. Banana powder can only be kept fresh on the shelf for about a year, regardless of the drying procedure.

### Flow sheet of Banana powder



### Banana powder packaging

Banana powder is often packaged in a plastic bag (500 gm per kg bag). Currently, banana powder is packaged in tetra packing material (small pouches, 50–100 grams) for long-term preservation. Banana powder produced from dried green bananas may be kept for several months in an airtight container.

**Value addition in banana powder product**

Banana powder is used in the preparation of milkshakes and baby meals. It's utilized in the production of a variety of cakes and biscuits, as well as animal feeds.

**CONCLUSION**

To implement a value chain for banana powder harvesting, transportation, processing, packaging, and market distribution in order to boost sales and usage of the country's abundant bananas. Increase the use of a high-nutrient banana product. In the processing business, jobs are created. Meet the market's demand and earn the highest possible profit.

**REFERENCES**

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