# **PROJECT PROFILE** ON PROCESSED **BAMBOO SHOOT PICKLE & CANNED BAMBOO SHOOTS** MAKING UNIT





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# INTRODUCTION

One extensive use of bamboo is the usage of young shoots as food. Bamboo shoots are the young, edible bamboo plants that have just emerged from the ground. Bamboo shoots are low in fat and calories but rich in fibre with about 90% water. Fresh shoots have a crisp and sweet flavor with limited shelf life and have to be sold immediately. The peak availability period is June to October. The shoots are usually harvested when they attain the height of 15-16 cm.

North-East India is one of the parts where bamboo is one of the important natural resources.

# PRODUCTS AND ITS APPLICATION

Bamboo shoot is consumed either raw or processed because of its exotic taste and flavor. Many nutritious and active materials-such as vitamins, amino acids and anti-oxidants such as flavones, phenols and steroids are present in the bamboo shoots. They are valuable in pharmaceutical and food processing industries and can be processed into beverages, medicines, additives or health foods. The bamboo shoots processing has very high potential and demand in the market, especially in the North East region.

# INDUSTRY OUTLOOK/TREND

Bamboo is one of the high demands because of its attractive look, strength and hardness and its quick growth cycle and ability to be harvested sustainably. With innovative methods and advancements have opened up new possibilities for bamboo market in rural development and poverty reduction. The rise of near source value adding in modern supply chains, in particular, raises the sector's economic impact on poor areas.

There is also growing demand in individual families, restaurants, caterers have high need for processed bamboo shoots and pickled bamboo shoots. In the north-eastern region which is one of the significant producers of bamboos, has a promising future for bamboo shoots business.

#### PROCESS

Bamboo shoots are sensitive bamboo plants 20-30 cm long, thin to a point, and weigh more than 1 kg; there size and weight very greatly depending upon a location, soil, depth and nutrition, watering and drainage conditions, rainfall, temperature and soil fertility.

#### Manufacturing process

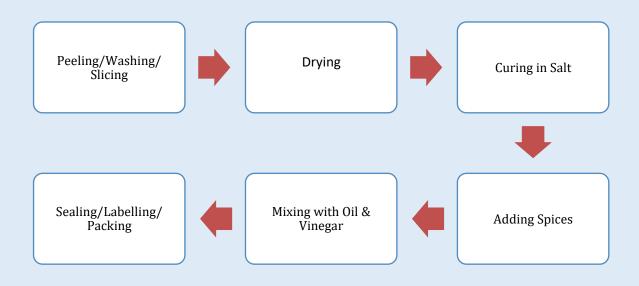
Bamboo Shoots Pickle – These are prepared from young bamboo shoots mixed with the right species in a small amount of oil. It can be kept in brine for a long time. When needed, pickled bamboo shoots are taken from the brine and utilized in cooking.

Bamboo Shoots Pickles Processing Technique – Bamboo Shoots Pickles processing begins with washing, cleaning, slicing and trimming the shoots, then boiling for 10-15 mins and keeping in glass/bamboo container solution with 5% salt and 1% citric acid with appropriate starter culture. The right ingredients and oils are then added and carefully blended. The containers mouth is then sealed and left under anaerobic conditions for a set period depending on the product.

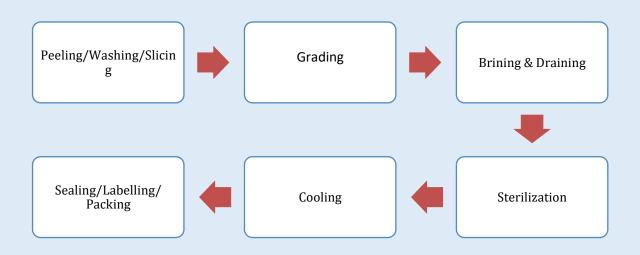
Canning of Bamboo Shoot – Canned Bamboo Shoot is a product made from edible bamboo shoot packed in a packing medium with or without food additives and heat-processed before or after sealed in container to avoid spoiling or kill unwanted microbes.

Canning Bamboo Shoots Processing Techniques - Bamboo shoots have a high-water content, which encourages the growth of unwanted microorganisms. The canning process helps reduce rancidity and inhibit the growth of microorganisms in bamboo shoots, allowing the products to last longer. Bamboo shoots are cut from the head and tail of the plant. The bamboo shoots are chopped, sliced, and graded before being boiled, drained, and canned. The cans are filled with a salt solution that is allowed to evaporate. Cans are packed and retorted at a temperature of 100-230 degrees Celsius. Labelling and packing are completed when the cans have cooled.

#### **Bamboo Shoot Pickles – Process Flow Chart**



#### **Canning of Bamboo Shoot – Process Flow Chart**



# **RAW MATERIAL REQUIREMENTS (Monthly)**

The raw material required for preparing bamboo shoot pickles are raw bamboo shoots for both pickle and canned product. Other ingredients such as salt, king chilies, mustard oil, cumin seeds, Carmon seeds, white mustard seed powder, acetic acid, critic acid are required. Packaging bottles, pet jars, food quality plastic bags are required for packing purposes. Average price of ingredient materials per kg is around INR 135.

Sl. No.	Particulars	Quantity	Unit Cost (Rs.)	Value (Rs.)
	Raw Bamboo shoot	8000	200	16,00,000
	Bamboo Shoots (for Canned Product)	12000	200	24,00,000
	Ingredients*	Lumpsum		70,000
	Packaging Material	Lumpsum		50,000
	Total			41,20,000

\*Ingredients are assumption based and therefore the actual quantity varies from person to person

# MANPOWER REQUIREMENT (per month)

Туре	Number	Cost (Rs.)
Production Manager	1	15,000
Store In-Charge cum Accountant	1	12,000
Marketing and Sales Personnel	4	32,000
Machine Operator/Skilled Workers	3	30,000
Unskilled Workers	6	24,000
Total		1,13,000

#### **IMPLEMENTATION SCHEDULE**

Particulars	Units	Details	
Land		Own Land/On Lease	
Building/Civil Works	2000 Sq.	10,00,000	
	Ft	10,00,000	
Plant & Machinery			
Washing Tanks of 1000 Litre Capacity	2		
Slicing Machine	1		
Boiler with accessories	1		
Mixer/Grinder	2	7 50 000	
Bottle Washing and Filling Machine	Aachine 1 7,50,000		
Cap Sealing Machine	ling Machine 1		
Automatic Form Fill and Sealing Machine	1		
Burner Stove	1		
SS Utensils, Weighing Scales, Hand Gloves, Miscellaneous	Lumpsum	80,000	
Tools and Equipment		80,000	
Testing Equipment	Lumpsum	30,000	
Installation etc. @10%		86,000	
Total		19,46,000	

The approximate total area required for complete factory setup is 2000 Sq. ft. for smooth production including storage area. It is expected that the premises will be own land/on lease.

# **OTHER EXPENSES (PER MONTH):**

Sl. No	Particulars	Cost (Rs.)
1	Electricity	10,000
2	Advertising & traveling	10,000
3	Transport	20,000
4	Misc. Fixed assets (Furniture, etc.)	15,000
5	Contingencies, Communication & Stationery	10,000
	Total	65,000

# WORKING CAPITAL (per month)

Sl. No	Particulars	Cost (Rs.)
1	Raw Material	41,20,000
2	Salaries & Wages	1,13,000
3	Other expenses	65,000
	Total	42,98,000

# TOTAL CAPITAL INVESTMENT

Sl. No	Particulars	Cost (Rs.)
1	Working Capital	42,98,000
2	Machinery	9,46,000
	Total	52,44,000

## **COST OF PRODUCTION**

Sl. No	Particulars	Cost (Rs.)
1	Total recurring cost per annum	5,15,76,000
2	Depreciation on machinery & equipment (10%)	94,600
3	Interest (10%)	51,57,600
	Total	5,68,28,200

# **IMPLEMENTATION SCHEDULE**

Project Stages	Months				Months		
	1	2	3	4	5	6	
Rent Agreement							
Ordering of Machinery							
Delivery of Machinery							
Term/Working Loan Sanction							
Installation of Machinery							
Commissioning of Plant							
RM/Inputs Procurement							
Manpower Appointments							

Commercial Production			

# COST OF THE PROJECT

Sr. No	Costing Heads	Cost (in INR)
1	Land+ Building Expenses	10,00,000
3	Plant & Machinery	9,46,000
4	Contingency	1,00,000
	Total Cost of Project	20,46,000

#### SALES PROCEEDS (PER ANNUM)

Sl. No	Particulars	Quantity (Kg)	Unit Sale Price (Rs)	Value (Rs.)
1	Bamboo Shoot Pickle	96000	595	5,72,00,000
	Canned Bamboo Shoots	18000	450	81,00,000
	Total			6,53,00,000

# **PROFITABILITY (BEFORE INCOME TAX)**

Sl. No	Particulars	Profit		
1	Annual Gross Profit (INR) = Annual Sales – Annual Recurring Cost	84,71,800		
2	% of profit on sales	12.97%		
3	Break-even point analysis			
А.	Net sales (in Rs. lakh)	653		
В.	Variable cost			
B1	Raw Materials	41.2		
B2	Other expenses 0.65			
B3	Interest on Working Capital Loan	51.57		
	Total variable cost	93.42		
С.	Contribution (A-B)	559.58		
D.	Fixed & Semi-fixed Costs			
D1	Salary	1.13		
D2	Repair & maintenance	1		
D3	Interest on Term Loan	51.57		
D4	Depreciation	9.4		
	Total fixed cost	63.1		
Е.	BREAK EVEN POINT	48.70%		

Break-even point

 $\frac{Annual \ Fixed \ CostX100}{Annual \ Sales - \ Annual \ Variable \ Cost} = \%$ 

<b>PROFITABILITY CALCULATIONS</b>
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Sr. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
	Gross Sales (Lakh)	653	718.3	790.1	790.1	790.1
А	Less: (Lakh)					
1.	Recurring Cost	515	566.5	623.2	623.2	623.2
2.	Depreciation	9.4	10.34	11.37	11.37	11.37
3.	Interest	51.57	56.73	62.40	62.40	62.40
В	Production cost	568	624.80	687.28	687.28	687.28
С	Gross Profit	85	93.50	102.85	102.85	102.85
	Taxes @ 30%	25.50	28.05	30.86	30.86	30.86
	Net Profit	59.50	65.45	72.00	72.00	72.00

#### References

- Bamboo Shoot Pickle & Canned Bamboo Shoots NIFTEM Reports
- Report on
- DETAILED PROJECT REPORT (DPR) NCDChttps://www.ncdc.in- •Bamboo Shoot Pickle
- Video Link-<u>https://youtu.be/0EsniLmY7lA</u>

# MANUFACTURES/ SUPPLIERS OF MACHINERY

- Prashant Bamboo Machines Private Limited, Address- Ved Prakash Soni (CEO), BEHIND SOMALWARA SCHOOL, UMIYA INDUSTRIAL AREA, BHANDARA RD, NAGPUR, MAHARASHTRA 440008 MOBILE NO: +91 7447482513 / 8767714462
  E-MAIL: prashantbamboo@gmail.com; info@prashantbamboo.com
- Anil Bamboo Machines (Anil Enterprises)- Rohit Agrawal Mr. U. C. Agrawal, 11, Ujjain Rd, Ravi Shankar Market, Industrial Area, Itawa, Dewas, Madhya Pradesh 455001,Mobile no- 08048757004
- IM Corporation (Bamboo Products)-Address- Metro Station, F-146, First Floor, Infront of Jasola, Shaheen Bagh, New Delhi, Delhi 110025, Phone no- 070172 87063

## STATUTORY/ GOVERNMENT APPROVALS

There is statutory requirement of FSSAI license for setting up of food processing industry. Moreover, MSME & GST registration, IEC Code for Export of end products and local authority clearance may be required for Shops and Establishment, for Fire and Safety requirement and registration for ESI, PF and Labour laws may be required if applicable. Entrepreneur may contact State Pollution Control Board wherever it is applicable.

# **DISCLAIMER:**

This is an indicative illustration of project profile; the above calculation can vary with the locations. Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further, the same have been given by way of information only and do not carry any recommendation.

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