

**PROJECT PROFILE
ON PRESERVED
PICKLES UNIT
(CUCUMBER AND
GHERKINS)**



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INTRODUCTION

India is the second largest vegetables producer in the world followed by China. The country grows around 15 per cent of the world's vegetables. Vegetables are seasonal and perishable in nature. Due to poor post-harvest management every year, around 30 percent of the vegetables are wasted in the whole supply chain. On the other hand, merely 2 per cent of the vegetables are processed in the country into value added products and the rest is consumed as raw. To minimize the wastage in the supply chain vegetable processing like pickle making can minimize the wastage. Pickles are a delicacy that is made all around the world. Some people make it with fruits whereas some people use vegetables. Whatever the ingredients may be, it is a famous recipe and liked by all. Cucumber and gherkins are mainly used for salad. These vegetables are seasonal. One can easily have the delicacy of cucumber and gherkin pickle during offseason. Pickle making unit is a small-scale industry. Vegetable pickle making unit can be established in all over India. In this above backdrop, small to medium scale integrated pickle making unit for cucumber and gherkins can be established in potential clusters across India.

PRODUCTS AND ITS APPLICATION

- Pickles have various importance:
- Helps digestion- Fermented pickles are full of good bacteria called pro-biotic, which are important for gut health.
- Fights diseases- Cucumbers are high in an antioxidant called beta-carotene, which your body turns into vitamin A.
- May ease muscle cramps.
- Curb sugar spikes.

DESIRED QUALIFICATION FOR PROMOTER

No specific educational qualification requires for pickle making.

INDUSTRY OUTLOOK/TREND

India is a prominent exporter of cucumber and gherkin pickles in the world. The country has exported 121,821.10 thousand tonnes of such pickles to the world during the year 2020-21. The export growth rate by volume is around 8.2%. Major Export Destinations are USA, Germany, Netherlands, Belgium, Australia, and Canada.

ITC HS Code 200110

Year	Export (Rs. Lakh)
2021-22 (April – June)	20,094.07
2020-21	101,930.68
2019-20	79,871.24
2018-19	90,668.02

MARKET POTENTIAL AND MARKETING ISSUES, IF ANY

Due to the rise of disposable income for Indian middle class, change in the lifestyle, increasing working women, demand for packed food industry the consumption of pickle in all form are rising. According to a report published in March 2018, the global pickles and pickle products market is expected to register of CAGR of 3.2% during the forecast period, 2018 to 2023. Vegetables like cucumber, gherkins are mostly seasonal and perishable in nature, and specific climatic conditions require for those vegetables. Again, there are price fluctuations between on and off-season of those vegetables. During on-season vegetable sold at a very low price, whereas in the off-season consumers must pay accessibly high price. This fluctuation creates problem for both the producers and consumers. Therefore, preserved pickle can play an important role in bringing the demand and supply gap narrower. Urban organized platforms such as departmental stores, malls, supermarkets can be attractive platforms to sell well-packaged and branded pickles. Processors can also have tie-up with hotels, caterers, and restaurants for supply.

BASIS AND PRESUMPTIONS

- i) Plant capacity is 30 ton/annum with capacity utilization of 60, 65, 70, 75 & 80% in 1st to 5th year respectively.
- ii) This project is based on single shift basis and 300 working days (8-10 hrs shift) in a year
- iii) The cost of machinery and equipment/materials indicated refer to a particular make and the prices are approximate and those ruling at the time of the preparation of scheme.
- iv) Non-refundable deposits-project preparation cost, trial production, fees, etc., are considered under pre-operative expenses.

RAW MATERIAL REQUIREMENTS

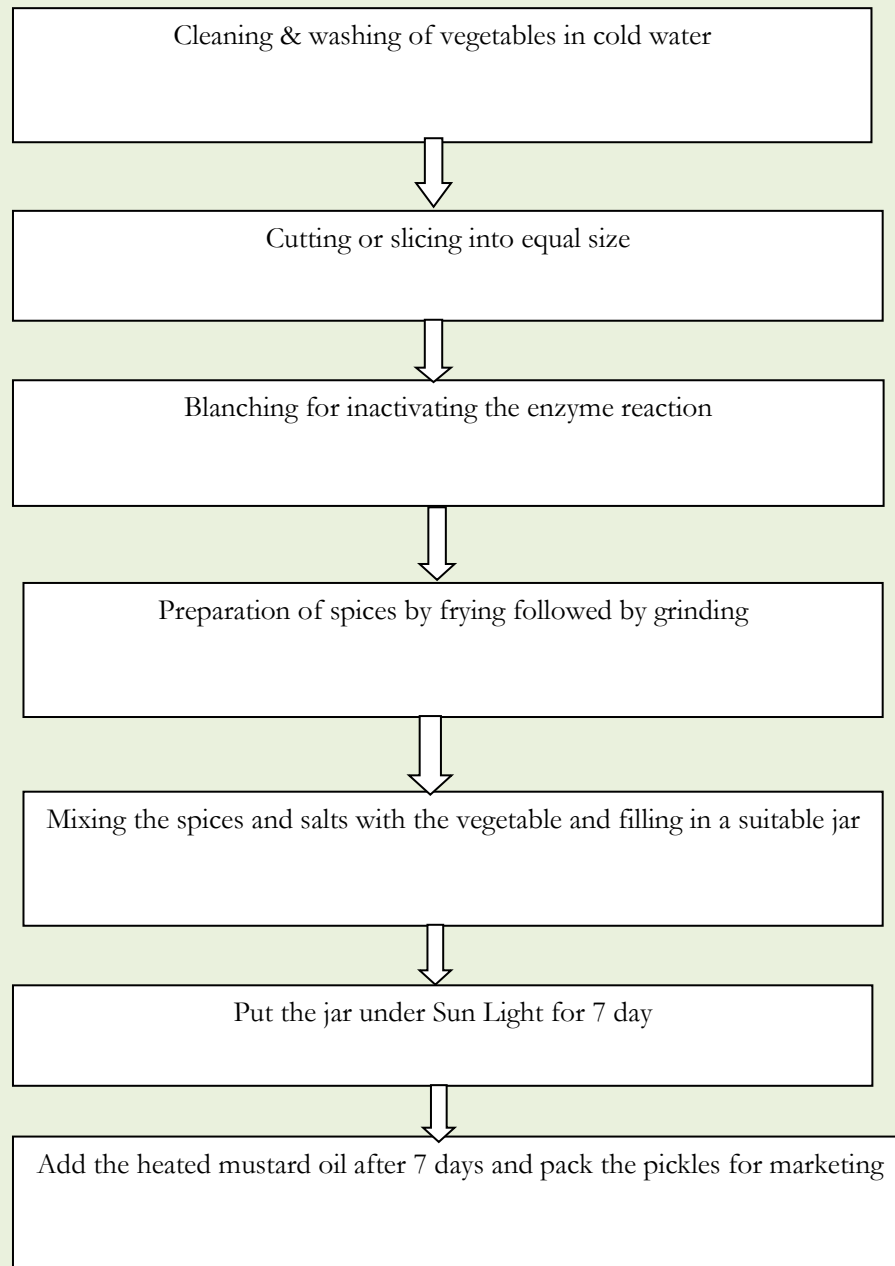
Raw vegetables like fresh cucumber and gherkins; besides chemicals, salt, red chilies turmeric, black pepper, cardamom (large), cinnamon (powdered), cumin, aniseed powder, mustard, vinegar, and mustard oil are required. Packaging bottles, pet jars, food quality plastic bags are required for packing purposes. Average price of raw materials per kg is around INR 90.

MANUFACTURING PROCESS

- Fresh and healthy vegetables are selected for pickle processing
- Washing, trimming, and peeling are done to remove rough and thick skins
- Vegetables are cut into equal pieces of 1-1.5cm thickness.
- Blanch the cut pieces of vegetables in for 5 minutes, drain the water and dry in shade to remove moisture.
- Fry the spices in a little oil separately
- Mix the vegetable slices with spices and salts (9%) thoroughly
- Fill in the jar and keep in sun for a week

- Add oil after heating and cooling to keep the pickle for a longer time. Sodium benzoate @ 250 ppm can be added as a preservative (If required for long time preservation).
- Storage the pickles at ambient temperature

The general process flow chart for cucumber & gherkin pickle is given below:



MANPOWER REQUIREMENT (PER MONTH)

Type	Number	Cost (Rs.)
Wages of Labour		
Machine operator	1	16,000
Workers	2	24,000
Helper cum sweeper	2	16,000
Sub-total per month		56,000
Sub-total per year (in Rs. Lakh)		6.72
Salary of staffs		
Accountant cum storekeeper	1	16,000
Marketing personal	1	16,000
Sub-total per month		32,000
Sub-total per year (in Rs. Lakh)		3.84

LAND

Particulars	Units	Total Area	Rate per month (INR)	Total Cost (INR Lakh)
Land (rent)	Sq. Ft.	1000	50000	6.00

MACHINERY SPECIFICATIONS

Types of machinery	Quantity	Price (INR Lakh)
Spice grinder	1	1.00
Vegetable slicer	2	1.50
Material handling & other equipment (Trolley, bins, knife, etc.)	Lumpsum	0.50
Sub-total*		4.00
Office furniture and fixtures		2.00
Total		6.00

*Excluding Tax and transportation

Total fixed cost (Land + Machinery + Furniture): INR 12 lakh

UTILITIES & CONTINGENCIES (per month)

Sl. No	Particulars	Cost (Rs. Lakh)
1	Electricity	0.10
2	Contingencies	0.30
2.1	Postage and stationery	0.01
2.2	Advertisement & publicity	0.10
2.3	Repair & maintenance	0.02
2.4	Storage	0.05
2.5	Transportation	0.10
2.6	Insurance, taxes, and telephone bills	0.01
2.7	Unforeseen expense	0.01

WORKING CAPITAL ASSESSMENT (per month)

Particulars	Value (in INR lakh)
Manpower	0.88
Electricity	0.10
Contingencies	0.30
Raw materials	1.35
Total Recurring expenditure per month	2.63
Total for 3 months	7.89

CAPITAL INVESTMENT

Sl. No	Particulars	Cost (Rs. Lakh)
1	Land	6.00
2	Plant & Machinery and Furniture	6.00
3	Preoperative Expenses	1.00
	Total Fixed Capital	13.00
4	Working Capital (for 3 months)	7.89
	Total	20.89 (rounding to 21 lakh)

IMPLEMENTATION SCHEDULE

Project Stages	Months.....			
	1	2	3	4
Acquisition of Land				
Ordering of Machinery				
Delivery of Machinery				
Term/Working Loan Sanction				
Installation of Machinery				
Commissioning of Plant				
RM/Inputs Procurement				
Manpower Appointments				
Commercial Production				

SALES REVENUE

Computation of sale					
Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock (MT)		1.80	2.00	2.10	2.20
Production (MT)	18	19.5	21	22.5	24
Less: Closing Stock (MT)	1.8	2.0	2.1	2.2	2.4
Net Sale	16.2	19.3	20.9	22.4	23.8
sale price per KG	200	210	220	230	240
Sales (in Lacs)	32.4	40.53	45.98	51.52	57.12

PROFITABILITY CALCULATION

Sl. No	Particulars	1 st year	2 nd year	3 rd year	4 th year	5 th year
	Capacity Utilization (%)	60	65	70	75	80
A	Gross Sales (INR Lakh)	32.4	40.53	45.98	51.52	57.12
	Cost of Sales					
B1	Raw Materials (INR Lakh)	16.20	18.53	21.00	23.63	26.40
B2	Electricity (INR Lakh)	1.20	1.26	1.32	1.38	1.44
B3	Contingencies (INR Lakh)	3.60	4.2	4.8	5.4	6.0
B4	Wages (INR Lakh)	6.72	6.80	6.90	7.00	7.10
B5	Packaging cost & overheads (INR Lakh)	1.00	1.20	1.40	1.60	1.80
B	Cost of Production (INR Lakh)	28.72	31.99	35.42	39.01	42.74
	Add opening stock (INR Lakh)	0	3.78	4.4	4.83	5.28
	Less closing stock (INR Lakh)	3.6	4.2	4.62	5.06	5.76
B	Cost of sales (per year) (INR Lakh)	25.12	31.57	35.2	38.78	42.26
C	Gross Profit (INR Lakh)	7.28	8.96	10.78	12.74	14.86
D	Interest on Capital Investment (INR Lakh)	2.1	2.1	2.1	2.1	2.1
E	Salary	3.84	4.00	4.20	4.40	4.60
F	Marketing & Admin Expense	1.00	1.10	1.20	1.30	1.40
G	Depreciation @5%	0.30	0.25	0.20	0.15	0.10
	Total (D+E+F+G)	7.24	7.45	7.70	7.95	8.20
H	Net Profit	0.04	1.51	3.08	4.79	6.66
I	Tax	-	-	-	-	-
J	Profit after taxation	0.04	1.51	3.08	4.79	6.66

BREAK EVEN POINT ANALYSIS

Sl. No	Particulars	Cost (Rs. Lakh)
1	Depreciation on machineries @ 5%	0.30
2	Interest on capital investment @10%	2.1
3	40% of salary and wages	4.22
4	40% of the utilities and contingent expense	1.44
5	Insurance	0.10
6	Total Fixed Cost	8.16
7	Net profit 2 nd year	1.51
	BE Point: $\text{Net profit} \times 100 / \text{Net Profit} + \text{Fixed Cost}$	20%

References

- APEDA Reports on Cucumber And Gherkins
- KVIC Report on Cucumber & Gherkins
- Video Link- <https://youtu.be/QRgX2ReFffo>

MANUFACTURES/ SUPPLIERS OF MACHINERY

- M/s. Mather and Platt (India) Ltd. , 805-806, Ansal Bhawan, 16, Kasturba Gandhi Marg, New Delhi - 110 001.
- M/s. Raylons Metal Works, Kondivita Lane, Post Box - 17426, P.O. M.J.B. Nagar, Andheri (E), Mumbai - 400 059
- M/s. International Food Machinery Corporation, Krishna Opp. Deep Bhavan, Pandit Nehru Marg, Jamnagar - 361 008, (Gujarat)
- 4. M/s. The Master Mechanical Works Pvt. Ltd., 75, Link Road, 1st Floor, Adjacent to Moolchand Hospital, Lajpat Nagar - III, New Delhi - 110 024.
- 5. M/s. Narangs Corporation, P-25, Cannaught Place, (Below Madras Hotel), New Delhi - 110 001.
- 6. M/s. B. Sen Barry and Co., 65/11, Rohtak Road, Karol Bagh, New Delhi - 110 005

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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