MODEL PROJECT REPORT FOR SMALL FISH PROCESSING UNIT

Small Fish Processing Unit

Fish processing

When one hears of "value added products" Processed foods immediately comes to mind.The term refers to value that is added to a product from the time it enters the processing line to the time it leaves. Thus a freshly harvested kilo of carp or fish costing Rs. 140 would sales at Rs. 300 packed, breaded and battered and ready for freezing. Convenience is the bottom line for the success of value added products, which has made fast food counters popular worldwide. A need for high quality convenience fish products are growing, especially in more affluent population. Technology for carp processing and marketing of the product, like butterfly, fingers, nuggets Tilapia Drumstick are commanding higher consumer appeal.

Butterfly Carp Fish processing

Among the freshwater carp fish species, Rohu, Catla, Mrigal are extremely decision. There fishes are normally told as whole fish in the market. Sometimes, fish vendors dress the fish and oblige the customers. There are two major problems of the fish consumers while buying such type of fish. Firstly to dress the fish and cook and secondly, innumerable number of small pin bones. To overcome these two problems and to have a convenient and ready to use boneless fish and their products. This technology has been popularized.

Table size rohu, catla, mrigal fish has 60-70% edible portion while carps of above 3kg size provide 75-80% edible portion. Normally, freshwater carps are marketed under iced condition and has keeping quality of 7 to 10 days only. There has been increased demand for cars in internal consumption and export market.

Breading, battering and coated products

Through this process, The primary processed value added products can be processed by dipping in batter and spreading bread crumbs can be frozen and sold such or can be fried and served to the consumers.

Packaging of whole deboned fish

Bone reduced whole fish can be vacuum packaged individually and frozen at -200 C and can be stored for six months and marketed. Spiced boneless whole fish can be prepared by applying spice mix on the inner side of the whole butterfly carp fish and chilled for 8 hours at 4oC. Products are vacuum packaged and marketed. The chilled fish products are ready to use and have keeping quality for 7days. The whole deboned fish are vacuum packaged and frozen at -200C and placed in cartoons and stored for 6 months.

Cooking and Presentation

Frozen bone reduced whole fish are thawed for 12 hours for 4-60C. Without disturbing the vacuum pack, dip in water bath for 2 hours. If the product is not pre-spiced apply dry spice mix and spice paste on the inside of the deboned fish and set aside for one hour for curing. Roast the fish in a preheated oven at 1800C for half an hour. Decorate the fish with onion rings, coriander and mint leaves. This can be served in hotels, restaurants for four persons. Economics of Fish Processing unit is explained below (figure in rupees)

1	Fresh fish required	2.5 qnt/week
2	Manual processing	Per person

A	Fixed cost for processing centre	Unit	Unit cost	Total
1	Big Deep fridger	2	25,000	50,000
2	water supply tank	1	5,000	5,000
3	4 working and cleaning table-steel made	4	5,000	20,000
4	10 chair	10	1,500	15,000
5	cutting equipment and cooker	1	25,000	25,000
6	gas connection	1	3,000	3,000
7	Packing materials	1	5,000	5,000

8	Power supply/genset	1	25,000	25,000
9	1 big and 1 small weigh machine	1	10,000	10,000
10	plastic pack sealing	1	5,000	5,000
11	heat pressure	1	1,500	1,500
12	Mincer	1	30,000	30,000
13	grinder for pickle	1	5,000	5,000
	Total Cost =			199,500

B	Fixed cost For retail unit	Unit	Unit cost	Total
1	2 staff	2	5,000	10,000
2	2 staff to buy fish	2	5,000	10,000
3	two deep fridge	2	25,000	50,000
4	marketing board	1	10,000	10,000
5	ice box	5	5,000	25,000
6	vehicle cost	1	350,000	350,000
7	table,chair,fixataion	3	8,000	24,000
8	Rent	1	5,000	5,000
	Total Cost =			464,000

C	Recurring cost per month	Unit	Unit cost	Total
1	lease /rent for production center	1	5,000	5,000
2	1 supervisor	1	8,000	8,000
3	4 staff	4	5,000	20,000
4	Bottlings	500	10	5,000
5	monthly gas	2	800	1,600
6	transportation	1	5,000	5,000
	Total Cost =			44,600

D	Raw material cost for one week	Unit	Unit cost	Total
1	Fresh fish 3 Qnt	300	120	36,000
2	Oil and spices	1	3,000	3,000
3	other packing materials consumable	1	5,000	5,000
4	fuel	1	3,000	3,000
5	Printing packing	1	5,000	5,000
	Total Cost =			52,000
	Total Cost (Annual)= A+B+(C+D) *12			1,822,700

E	Output	Unit	Unit cost	Total
1	50% output boneless item weekly	150	300	45,000
2	Monthly output boneless item	45000	4	180,000
3	Pickle 1.5 Qnt	150	400	60,000
	Total Revenue =			**240,000**
	Total Revenue (Annual)=			**2,880,000**
	Profit (Annual)=			**1,057,300**
	Profit (month)=			**88,108**

Business Plan for Small Fish Processing Unit

Budget Head: Sales Turnover& Working Capital Requirement								
#	Commodity		Rohu			Tilapia		
		Unit / Kg	Fillet	Deboned Fish	Live	Fillet	Deboned Fish	Live
1	Cost of Fish	1	120.00	120.00	120.00	120.00	120.00	120.00
2	Loss during processing	0.3	36.00	36.00		36.00	36.00	
3	Cost of Labour	0.1	20.00	40.00	20.00	20.00	40.00	20.00
4	Water Requiement	20L	2.00	2.00	-	2.00	2.00	-
5	Electricity Consumed	2U	5.00	5.00	-	5.00	5.00	-
6	Ice requirement		2.00	2.00	-	2.00	2.00	-
7	Cleaning chemicals		5.00	5.00	-	5.00	5.00	-
8	Cost of other materials		5.00	5.00	15.00	5.00	5.00	15.00
9	Cost of Packaging		2.00	2.00	-	2.00	2.00	-
10	Cost of storage		1.00	1.00	-	1.00	1.00	-
11	Loss during sale		24.00	24.00	-	24.00	24.00	-
12	Transportation		2.00	2.00	30.00	2.00	2.00	30.00
13	Interest on working capital		-	-	-	-	-	-
14	Depreciation		-	-	-	-	-	-
	Total Cost of Product		224.00	244.00	185.00	224.00	244.00	185.00
	Out Put of Product		1	1	1	1	1	1
	Unit Cost of Product (per Kg)		224.00	244.00	185.00	224.00	244.00	185.00
	Margin		45.00	49.00	37.00	45.00	49.00	37.00
	Unit Sale Price of Product		269.00	293.00	222.00	269.00	293.00	222.00

Table: Cash Flow Analysis

		Total	Sep				Oct				Nov				Dec				Jan			
			W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
I	**Total Inflow**	**3,995,100**	**231,900**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**	**235,200**
1	Equity	0																				
2	Working Capital Loan	231,900	231,900																			
3	Cost of Products sold	3,763,200		235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200	235,200
II	**Total Outflow**	**3,705,122**	**231,900**				**231,900**				**231,900**				**231,900**				**231,900**			
1	Interest on Capital loan	0																				
2	Procurement expenses	3,330,300	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900	195,900
3	Interest on working capital loan	10,822	0	0	0	2,706	0	0	0	2,706	0	0	0	2,706	0	0	0	2,706	0	0	0	2705.5
4	Other operating expenses	184,000				46,000				46,000				46,000				46,000				46,000
5	Market expenses	180,000	36,000				36,000				36,000				36,000				36,000			
6	Repayment of Loan	0				0				0				0				0				0
III	**Net Inflow**		**0**	**235,200**	**235,200**	**235,200**	**3,300**	**235,200**	**235,200**	**235,200**	**3,300**	**235,200**	**235,200**	**235,200**	**3,300**	**235,200**	**235,200**	**235,200**	**3,300**	**235,200**	**235,200**	**235,200**