

PROJECT REPORT FOR
BIO PESTICIDES MANUFACTURING



Prepared for

Promoter:

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Project For :
**Bio Pesticides
Manufacturing**

I. PROJECT AT A GLANCE

1. Name of Promoter : Mr. xxxxxxxxxxxxxxxxxxxxxxxxx
Addres:xxxxxxxxxxxxxxxxxxxxxxxxxx
2. Project Cost : Rs. 55.75 Lakhs
3. Mean of Finance
 - A) T. L. facility from Bank : Rs. 34.13 Lakhs
 - B) Own contribution : Rs 13.94 Lakhs
 - C) Cash Credit facility from Bank : Rs. 7.68 Lakhs
4. Rate of Interest : 11.00% Per Annum
5. Repayment : 60 monthly instalments @ Rs. 0.74 Lakhs EMI
6. Nature of Project : Bio Pesticides Production Unit
7. Employment Potential : 3 Nos.
8. Nature of the Firm : Private Limited Company
9. Average Debt Coverage ratios : **1.99**

II. PROJECT DESCRIPTION

Introduction

Pest problem is one of the major constraints for achieving higher production in agriculture crops. India loses about 30% of its crops due to pests and diseases each year. The damage due to these is estimated to be Rs.60,000 crores annually. The use of pesticides in crop protection has certainly contributed for minimising yield losses. The pesticides, which are needed to be applied carefully, only when the threshold limits of the pest population is exceeded. However, quite often the indiscriminate and unscientific use of pesticides has led to many problems, such as pests developing resistance, resurgence of once minor pest into a major problem besides environmental and food safety hazards.

The problem of insect-pest is acute in case of all the crops and especially so in case of commercial crops. The use of insecticides and pesticides have increased manifolds during the past 3 - 4 decades with the introduction of intensive cropping. The average consumption of pesticides in India is about 570 gms per ha. as compared to developed countries like Japan, Thailand and Germany where the consumption rate is 11 kg, 17 kg and 3 kg per ha, respectively. Though the average quantum of pesticides usage in India is low, the damage caused due to their indiscriminate usage and poor quality maintenance is alarming. Interms of value, much of the pesticide application is accounted for by a few crops. For example, cotton, paddy and vegetable crops account for 80% of the value of pesticides applied in India.

Pesticides or chemicals are meant to control harmful pests such as insects, nematodes, diseases, weeds etc. However, excessive use of pesticides not only leave residues in soil, water and air but also have adverse effects on the non target organisms such as pollinators, parasitoids, predators and wild animals. This has adversely affected the ecological balance resulting in pest resurgence, development of resistance in the pest species and environmental pollution. Development of pest resurgence and resistance has resulted in high cost of production and low income especially to cotton farmers in AP, Maharashtra.

In view of the several disadvantages associated with the unscientific use of pesticides in agriculture, there is an urgent need for minimising the use of chemical pesticides in the management of insect pests. Growing public concern over potential health hazards of synthetic pesticides and also steep increase in cost of cultivation/low profit making by farmers has led to the exploration of eco-friendly pest management tactics such as Integrated Pest Management (IPM). IPM aims at suppressing the pest species by combining more than one method of pest control in a harmonious way with least emphasis on the use of insecticides. In simple terms "IPM is the right combination of cultural, biological and chemical measures which provides the most effective, environmentally sound and socially acceptable methods of managing diseases, pests and weeds". The major components of IPM are prevention, observation and intervention. The IPM seems to be the only answer to counter some of the major pests of crops, which have become unmanageable in recent years. The success of IPM largely depends upon conservation of naturally occurring bio control agents.

Importance of Bio-pesticides

In nature every ecosystem exists in a balance. Growth and multiplication of each organism depends on the food-chain, its predators, parasites, etc. In biological control system, these interrelations are exploited. The natural enemy of a pest, disease or weed is selected, its biology is studied for mass multiplication and utilize the same to check the target pest. They are also specific in their action and perish once their feed (i.e. the pest) is exhausted. Thus they are based on natural principles, do not leave any residue, safe and economical.

Among the alternatives, biological control of pests is one of the important means for checking pest problems in almost all agro-ecological situations.

Bio pesticides are living organisms which can intervene the life cycle of insect pests in such a way that the crop damage is minimized. The agents employed as biopesticides, include parasites, predators and disease causing fungi, bacteria and viruses, which are the natural enemies of pests. Further, they complement and supplement other methods of pest control. Utilisation of naturally occurring parasites, predators and pathogens for pest control is a classical biological control. On the other hand, these bio agents can be conserved, preserved and multiplied under Laboratory condition for field release. Once these bio-agents are introduced in the field to build their population considerably, they are capable of bringing down the targeted pest' population below economic threshold level (ETL). However, the crux lies in their mass production and application at the appropriate time.

Major advantages of bio pesticides

Bio-pesticides are preferred over chemical pesticides for the following reasons:

- No harmful residues;
- Target specific and safe to beneficial organisms like pollinators, predators, parasites etc.;
- Growth of natural enemies of pests is not affected, thus reducing the pesticide application;
- Environmental friendly;
- Cost effective;
- Important component of IPM as 1st line and 2nd line of defence, chemicals being the last resort.

Status of bio pesticide use in India

Last decade has witnessed a tremendous breakthrough in this aspect, especially on standardization of production techniques of *Trichoderma*, *Gliocladium*, *Paecilomyces*, *Pseudomonas*, *Trichogramma*, NPV and *Bacillus* to use them against many insect pests and diseases.

There are a number of instances where bio control agents have been successfully employed in India. Some examples of these are given below :

- Growth of lantana weed was controlled by using the bug **Telonemia scrupulosa**
- Sugarcane **pyrilla** has been successfully controlled in a number of States by the introduction of its natural enemy **Epiricania melanoleuca and Tetrastictus pyrillae**.
- **Trichogramma**, which feeds on the eggs of sugarcane borers, has been used against the borers in the states of Tamil Nadu, Rajasthan, UP, Bihar and Haryana.
- Similarly *Trichogramma*, *Bracon*, *Chelonus* and *Chrysopa* spp. are being used for the control of cotton bollworms. *Trichogramma* has also been used against rice stem borer and leaf folder.
- The sugarcane scale insect has been controlled with the help of predatory **coccinellid** beetles in UP, West Bengal, Gujarat and Karnataka.

The popularity of biopesticides has increased in recent years, as extensive and systematic research has greatly enhanced their effectiveness. Also, techniques for the mass production, storage, transport and application of biopesticides have been improved in recent years.

Scope for Commercial Production of Biopesticides

Though there are about 140 biopesticide production units existing in the country as on today, they are able to meet the demand of only less than 1% of cropped area. There exists a wide gap, which can only be bridged by setting up of more and more units for production of biopesticides. This requires large scale investment and private participation.

Some of the local small scale industries have already started production and marketing of *Trichoderma viride* (against few fungal diseases) and *Trichogramma* (against sugarcane early shoot borer). There is a scope to enhance production and use of biological control agents in the days to come as the demand is on the increase every year.

Technology

Model	Bio-agent	Production Process in brief	Remarks
1	i. <i>Trichogramma</i> spp. (egg parasite)	Mass multiplied by using stored grain pest as a host. The production involves the multiplication of host insect on sorghum grains, allowed to be parasitized by <i>trichogramma</i> . Then egg are clued in cards as "tricho cards".	Used for control of sugarcane early shoot borer, bollworms of cotton, sorghum stem borer.
	ii. <i>Crysoperla carnea</i> (<i>Chrysopid</i> predator)	Mass multiplied in laboratory on the eggs of stored grain pest.	Controls larval pests in pulses, vegetables /fruits
	iii. <i>Cryptolaemus montrouzieri</i> (<i>Ladybird</i> beetle)	Mass multiplied on already mass multiplied mealy bugs with the help of pumpkin as under laboratory conditions..	to control mealy bugs especially on fruits.
2	i. NPV of <i>Helicoverpa armigera</i> & <i>Spodoptera litura</i>	The production starts with raising of pod borer and tobacco caterpillar larvae (host culture) on semi-synthetic diet. NP Virus is smeared on cultured larvae. Then the diseased larvae are collected to obtain virus suspension after blending, filtration, centrifugation.	Used against boll worms in cotton and pod borers.
	ii. <i>Trichoderma</i> Fungal spp.	Multiplied in laboratory and formulated in powder form with the help of carrier material (talc powder).	To control root rot and wilt diseases especially on pulses.
	iii. Pheromone lures for <i>Helicoverpa armigera</i> & <i>Spodoptera litura</i>	Sex pheromones are filled into plastic lures at required concentration with the help of micro pippets and placed into rubber septa. The septa is fixed to the trap.	To trap reproductive males of gram pod borer and tobacco caterpillar.

III MARKET POTENTIAL & STRATEGY

Market Potential

Considering the negative effects of indiscriminate use of pesticides, importance for organic farming and promotion of sustainable farming practices it is estimated that there will be further scope for new units, particularly in the states of Maharashtra, Gujarat, Rajasthan, Madhya Pradesh, Tamil Nadu, AP, UP, West Bengal and Karnataka, where crops such as sugarcane, pulses, cereals and vegetable crops are grown in large scale.

The National Integrated Pest Management Workshop, 1992 estimated the gross demand for a few biopesticides which is given below:

S.No	Biopesticides	Demand
1	Trichogramma	690 million cards
2	Heliothis NPV (HNPV)	5293 million LE
3	Spodoptera NPV (SINPV)	3729 million LE
4	Trichoderma	2280 MT

At present, in some states, state government is purchasing the product from the private parties and selling it to the individual farmers at a subsidized rate.

IV. ECONOMICS OF THE PROJECT

A. COST OF PROJECT

(Rs. Lacs)

S.No.	Particulars	Total	Spent	Bal. To be spent
1	Land (0.5 Acers)	10.00	0.00	10.00
2	Building (2000 Sq ft)	16.00	0.00	16.00
3	Plant & Machinery (Lab Machinery)	18.00	0.00	18.00
4	Furniture & Electricals	1.00	0.00	1.00
5	Preliminary expenses	0.50	0.00	0.50
		45.50		45.50
6	Working Capital	10.25	0.00	10.25
		55.75	0.00	55.75

Means of Finance :

a) Own Contribution (25%)	13.94
b) T L facility from Bank (75%)	34.13
c) C.C. Facility from Bank (75%)	7.68
	55.75
d) Project Cost considered for subsidy under NABARD (Agri Clinics & Agri Business Centres scheme)	20.00
e) Subsidy Entitlement Under NABARD @ 36%	7.20

B. PROFITABILITY STATEMENT

(Rs. Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Sales	64.57	77.48	90.39	103.31	109.77	116.22
	Add : Increase in Cl.Stock	7.55	4.73	5.39	6.05	6.03	6.37
	Total Turnover	72.12	82.21	95.79	109.36	115.79	122.59
2	RM Consumption	42.73	51.28	59.82	68.37	72.64	76.92
3	Overheads						
	a) Direct	8.48	9.33	10.26	11.20	12.22	13.34
	b) Indirect	2.60	2.86	3.15	3.42	3.72	4.04
4	Balance	18.31	18.74	22.55	26.37	27.21	28.29
5	Interest on TL & CC	4.41	3.78	3.08	2.30	1.43	0.92
6	Depreciation	4.40	3.83	3.33	2.90	2.52	2.20
7	Preliminary expenses W/off	0.10	0.10	0.10	0.10	0.10	-
8	Profit after Interest & Dep.	9.40	11.04	16.05	21.07	23.16	25.16
9	Income Tax	1.08	1.51	3.01	4.52	5.15	5.75
10	Profit after Tax	8.32	9.53	13.03	16.55	18.01	19.41
11	Add: Depreciation & Pre Exp.	4.50	3.93	3.43	3.00	2.62	2.20
12	Add : Interest on TL	4.41	3.78	3.08	2.30	1.43	0.92
13	Cash Accruals	17.23	17.23	19.54	21.85	22.07	22.54
14	Instalments of TL & Interest	9.83	9.83	9.83	9.83	9.83	0.92
15	DSCR	1.75	1.75	1.99	2.22	2.25	-
16	Average DSCR	1.99					
17	N.P. to Total receipts	12.89	12.29	14.42	16.02	16.41	16.70

Project For : Bio Pesticides Manufacturing
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C. CASH FLOW STATEMENT

(Rs. Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
A CASH INFLOW :							
1	Collection from Debtors	61.88	74.25	86.63	99.00	105.19	111.38
2	T.L. from Bank	34.13					
3	CC from bank	7.68					
4	Capital	13.94	-	-	-	-	-
5	Subsidy	7.20	-				
	TOTAL (A)	124.82	74.25	86.63	99.00	105.19	111.38
B CASH OUTFLOW :							
1	Fixed Assets	45.50			-		
2	Payments to creditors	35.61	42.73	49.85	56.98	60.54	64.10
3	Direct overheads	8.48	9.33	10.26	11.20	12.22	13.34
4	Indirect Overheads	2.60	2.86	3.15	3.42	3.72	4.04
5	Interest on Bank Loan	4.41	3.78	3.08	2.30	1.43	0.92
6	Income Tax	1.08	1.51	3.01	4.52	5.15	5.75
7	Term Loan Repayment	5.42	6.04	6.74	7.52	8.39	-
8	Drawings	1.50	1.65	1.82	2.00	2.20	2.42
	TOTAL (B)	104.60	67.91	77.92	87.93	93.64	90.57
SUMMARY:							
	Op. Cash & Bank Balance.	-	20.23	26.57	35.29	46.36	57.90
	Add : Surplus / (Deficit)	20.23	6.35	8.71	11.07	11.55	20.81
	Cl. Cash & Bank Balance.	20.23	26.57	35.29	46.36	57.90	78.72

Project For :
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D. BALANCE SHEET

(Rs. Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
A	ASSETS :						
1	Fixed Assets	40.60	36.78	33.45	30.55	28.03	25.82
2	Investments	-	-	-	-	-	-
3	Current Assets	30.47	44.77	62.65	84.07	106.22	138.24
4	Loans & Advances	-	-	-	-	-	-
5	Pre Exp. Not written off	0.40	0.30	0.20	0.10	-	-
	TOTAL (A)	71.47	81.85	96.29	114.72	134.25	164.06
B	LIABILITIES:						
1	Capital	27.96	35.83	47.05	61.60	77.42	94.42
2	Secured loans						
	Term Loan	28.71	22.66	15.92	8.39	-	-
3	Unsecured Loans	-	-	-	-	-	-
4	Current Liabilities						
	Cash Credit	7.68	7.68	7.68	7.68	7.68	7.68
	Sundry Creditors	7.12	15.67	25.64	37.03	49.14	61.96
	TOTAL (B)	71.47	81.85	96.29	114.72	134.25	164.06

Project For :
Bio Pesticides Manufacturing

(Rs. Lacs)

E. CAPITAL ACCOUNT

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Op. Balance	-	27.96	35.83	47.05	61.60	77.42
2	Additions	21.14	-	-	-	-	-
3	Net Profit for the year.	8.32	9.53	13.03	16.55	18.01	19.41
	Sub Total	29.46	37.48	48.87	63.60	79.62	96.83
4	Less : Drawings	1.50	1.65	1.82	2.00	2.20	2.42
5	Cl. Balance	27.96	35.83	47.05	61.60	77.42	94.42

F. PRODUCTION AND SALES

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Capacity utilisation	0.50	0.60	0.70	0.80	0.85	0.90
1	Production per annum (MT) Production of Biopesticides (MT)	28.18	33.81	39.45	45.08	47.90	50.72
2	Cl.Stock of Finished Goods (MT) Production of Biopesticides (MT)	2.35	2.82	3.29	3.76	3.99	4.23
3	Sales per annum (MT) (Tot Production less Cl. Stock) Production of Biopesticides (MT)	25.83	30.99	36.16	41.32	43.91	46.49
4	Sales per annum Production of Biopesticides (MT) (Selling Price @ 250 Per Lit.)	64.57	77.48	90.39	103.31	109.77	116.22
	Total Sale	<u>64.57</u>	<u>77.48</u>	<u>90.39</u>	<u>103.31</u>	<u>109.77</u>	<u>116.22</u>
5	Sundry Debtors (Credit period allowed 15 days)	2.69	3.23	3.77	4.30	4.57	4.84
6	Collection from Debtors	61.88	74.25	86.63	99.00	105.19	111.38
7	Total cost of Production	51.21	60.61	70.09	79.57	84.86	90.26
8	Value of Closing Stock	4.27	5.05	5.84	6.63	7.07	7.52

Project For :
Bio Pesticides Manufacturing

PRODUCTION

S.No.	Particulars	Installed capacity (MT)	Year 1 0.50	Year 2 0.60	Year 3 0.70	Year 4 0.80	Year 5 0.85	Year 6 0.90
1	Production of Biopesticides (MT) (Bevaria basiana,metarangium ansipoli,tricoderma viridi,psudomonas fluresense,verticelium laccani)	56.35	28.18	33.81	39.45	45.08	47.90	50.72

Installed Capacity Ltrs./ Hrs	25.00
Per Day Working Hours	8.00
Less: Lunch Hours	1.00
Net	<u>7.00</u>
Total Production per day	0.18 MT
Total production per annum	56.35 MT
Total Working Days	365.00
Weekly off	26.00
Holidays	7.00
Machine Break down	10.00
Net Working days	<u>43.00</u> <u>322.00</u>

Project For :
Bio Pesticides Manufacturing

(Rs. Lacs)

G. RAW MATERIAL CONSUMPTION AND INVENTORY

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Production (Mtrs) (Output)	28.18	33.81	39.45	45.08	47.90	50.72
2	RM Purchases	39.45	47.33	55.22	63.11	67.06	71.00

Raw Material requirement (Input)

S.No.	Items	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Requirement of Raw Material (@ Rs. 140 per MT) (Potato Starch, Glysorol, Surfactant, Stabilizers.	39.45	47.33	55.22	63.11	67.06	71.00
2	Total cost of R.M	39.45	47.33	55.22	63.11	67.06	71.00

(Rs. Lacs)

RAW MATERIAL CONSUMPTION AND INVENTORY

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	RM cost for total production	39.45	47.33	55.22	63.11	67.06	71.00
2	Cl. Stock of RM (assumed 30 days consumption)						
	O/p Stock	-	3.29	7.23	11.83	17.09	22.68
	Add : Addition	3.29	3.94	4.60	5.26	5.59	5.92
	Closing Stock	3.29	7.23	11.83	17.09	22.68	28.60
3	RM Purchases	42.73	51.28	59.82	68.37	72.64	76.92
4	Sundry Creditors (Credit period allowed 60 days)	7.12	8.55	9.97	11.40	12.11	12.82
5	Payment to creditors	35.61	42.73	49.85	56.98	60.54	64.10

Project For :
Bio Pesticides Manufacturing

(Rs. Lacs)

H. DIRECT OVERHEADS

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Manpower						
b	Skilled Worker (Microbiologist) 1 no.@ Rs. 17,000 per month	2.04	2.24	2.47	2.72	2.99	3.29
c	Unskilled Worker 2 no.@ Rs. 9,000 per month	2.16	2.38	2.61	2.87	3.16	3.48
2	Electricity @ Rs. 10000 per month	1.20	1.32	1.45	1.60	1.76	1.93
3	Labels & Packaging	1.58	1.74	1.91	2.10	2.31	2.54
4	Other Production Overheads	1.50	1.65	1.82	1.91	2.00	2.10
	Total	8.48	9.33	10.26	11.20	12.22	13.34

Project For :
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(Rs. Lacs)

I. INDIRECT OVERHEADS

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Advertisement & Publicity	1.00	1.10	1.21	1.33	1.46	1.61
2	Repairs & Maint.	0.90	0.99	1.09	1.20	1.32	1.45
3	Insurance	0.20	0.22	0.24	0.25	0.27	0.28
3	Misc. Expenses	0.50	0.55	0.61	0.64	0.67	0.70
		<u>2.60</u>	<u>2.86</u>	<u>3.15</u>	<u>3.42</u>	<u>3.72</u>	<u>4.04</u>

Project For :
Bio Pesticides Manufacturing

(Rs. Lacs)

J. TERM LOAN REPAYMENT AND INTEREST THEREON

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	TL / Op. Bal.	34.13	28.71	22.66	15.92	8.39	-
2	Repayment during the year	5.42	6.04	6.74	7.52	8.39	-
3	Cl. Balance	28.71	22.66	15.92	8.39	-	-
4	Interest at 11 per cent p.a.	3.49	2.86	2.16	1.38	0.51	-
5	Total repayment with Interest	9.83	9.83	9.83	9.83	9.83	0.92
6	Interest on CC (at 12 per cent p.a.)	0.92	0.92	0.92	0.92	0.92	0.92
	Total Interest	4.41	3.78	3.08	2.30	1.43	0.92

Term Loan Repayment Schedule

MONTHS	EMI	INTEREST	PRINCIPAL REPAYMENT	OST PRINCIPAL
0				34.13
1	0.74	0.31	0.43	33.70
2	0.74	0.31	0.43	33.26
3	0.74	0.30	0.44	32.83
4	0.74	0.30	0.44	32.38
5	0.74	0.30	0.45	31.94
6	0.74	0.29	0.45	31.49
7	0.74	0.29	0.45	31.04
8	0.74	0.28	0.46	30.58
9	0.74	0.28	0.46	30.12
10	0.74	0.28	0.47	29.65
11	0.74	0.27	0.47	29.18
12	0.74	0.27	0.47	28.71
First Year	8.90	3.49	5.42	
13	0.74	0.26	0.48	28.23
14	0.74	0.26	0.48	27.75
15	0.74	0.25	0.49	27.26
16	0.74	0.25	0.49	26.77
17	0.74	0.25	0.50	26.27
18	0.74	0.24	0.50	25.77
19	0.74	0.24	0.51	25.26

20	0.74	0.23	0.51	24.75
21	0.74	0.23	0.52	24.24
22	0.74	0.22	0.52	23.72
23	0.74	0.22	0.52	23.19
24	0.74	0.21	0.53	22.66
Second Year	8.90	2.86	6.04	
25	0.74	0.21	0.53	22.13
26	0.74	0.20	0.54	21.59
27	0.74	0.20	0.54	21.05
28	0.74	0.19	0.55	20.50
29	0.74	0.19	0.55	19.94
30	0.74	0.18	0.56	19.38
31	0.74	0.18	0.56	18.82
32	0.74	0.17	0.57	18.25
33	0.74	0.17	0.57	17.68
34	0.74	0.16	0.58	17.10
35	0.74	0.16	0.59	16.51
36	0.74	0.15	0.59	15.92
Third Year	8.90	2.16	6.74	
37	0.74	0.15	0.60	15.32
38	0.74	0.14	0.60	14.72
39	0.74	0.13	0.61	14.11
40	0.74	0.13	0.61	13.50
41	0.74	0.12	0.62	12.88
42	0.74	0.12	0.62	12.26
43	0.74	0.11	0.63	11.63
44	0.74	0.11	0.64	11.00
45	0.74	0.10	0.64	10.35
46	0.74	0.09	0.65	9.71
47	0.74	0.09	0.65	9.05
48	0.74	0.08	0.66	8.39
Fourth Year	8.90	1.38	7.52	
49	0.74	0.08	0.67	7.73
50	0.74	0.07	0.67	7.06
51	0.74	0.06	0.68	6.38
52	0.74	0.06	0.68	5.70
53	0.74	0.05	0.69	5.01
54	0.74	0.05	0.70	4.31
55	0.74	0.04	0.70	3.61
56	0.74	0.03	0.71	2.90
57	0.74	0.03	0.72	2.19
58	0.74	0.02	0.72	1.46
59	0.74	0.01	0.73	0.74
60	0.74	0.01	0.74	0.00
Fifth Year	8.90	0.51	8.39	

Project For :
Bio Pesticides Manufacturing

(Rs. Lacs)

K. WORKING CAPITAL

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Total Inventory	7.55	12.28	17.67	23.72	29.75	36.12
2	Sundry Debtors	2.69	3.23	3.77	4.30	4.57	4.84
	Total	10.25	15.51	21.44	28.03	34.33	40.96
3	Bank C.C. (75 per cent)	7.68	11.63	16.08	21.02	25.74	30.72
4	Own Contribution (25%)	2.56	3.88	5.36	7.01	8.58	10.24

Project For :
Bio Pesticides Manufacturing

(Rs. Lacs)

L. CURRENT ASSETS

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Cl. Stock of Materials	3.29	7.23	11.83	17.09	22.68	28.60
2	Cl. Stock of Finished Goods	4.27	5.05	5.84	6.63	7.07	7.52
	Total Inventory	<u>7.55</u>	<u>12.28</u>	<u>17.67</u>	<u>23.72</u>	<u>29.75</u>	<u>36.12</u>
3	Cash and bank Balance	20.23	26.57	35.29	46.36	57.90	78.72
4	Sundry Debtors	2.69	5.92	9.69	13.99	18.56	23.41
	Total	<u>30.47</u>	<u>44.77</u>	<u>62.65</u>	<u>84.07</u>	<u>106.22</u>	<u>138.24</u>

M. FIXED ASSETS AND DEPRECIATION

(Rs. Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Land						
	Op. Balance	-	10.00	10.00	10.00	10.00	10.00
	Additions	10.00	-				
	Total	10.00	10.00	10.00	10.00	10.00	10.00
	Less : Depreciation	-	-	-	-	-	-
	Cl. WDV	10.00	10.00	10.00	10.00	10.00	10.00
1	Building						
	Op. Balance	-	14.40	12.96	11.66	10.50	9.45
	Additions	16.00	-				
	Total	16.00	14.40	12.96	11.66	10.50	9.45
	Less : Depreciation	1.60	1.44	1.30	1.17	1.05	0.94
	Cl. WDV	14.40	12.96	11.66	10.50	9.45	8.50
1	Plant & Machinery						
	Op. Balance	-	15.30	13.01	11.05	9.40	7.99
	Additions	18.00	-				
	Total	18.00	15.30	13.01	11.05	9.40	7.99
	Less : Depreciation	2.70	2.30	1.95	1.66	1.41	1.20
	Cl. WDV	15.30	13.01	11.05	9.40	7.99	6.79
2	Furniture & Electricals						
	Op. Balance	-	0.90	0.81	0.73	0.66	0.59
	Additions	1.00	-				
	Total	1.00	0.90	0.81	0.73	0.66	0.59
	Less : Depreciation	0.10	0.09	0.08	0.07	0.07	0.06
	Cl. WDV	0.90	0.81	0.73	0.66	0.59	0.53
	Total Depreciation	4.40	3.83	3.33	2.90	2.52	2.20
	Cl. WDV	40.60	36.78	33.45	30.55	28.03	25.82