

PROJECT REPORT FOR
HI-TECH CULTIVATION OF POMEGRANATE



SUBMITTED BY

Promoter Name:
XXXXXXXXXXXXXXXXXX

Project Location:
XXXXXXXXXXXXXXXXXX

Prepared By:

Download Project Report.com

1187/67, Ground Floor, Gruhalaxmi,
J.M. Road, near Balgandharva Chowk,
Pune, Maharashtra 411005.

C O N T E N T

CHAPTER NO.	PARTICULAR
-------------	------------

I.	PROJECT AT A GLANCE
----	---------------------

II.	ABOUT THE PROJECT
-----	-------------------

III.	ECONOMICS OF THE PROJECT
------	--------------------------

ANNEXURE-1.	ESTIMATED PROJECT COST
ANNEXURE-2	PRODUCTION AND PROFITABILITY STATEMENT
ANNEXURE-3	INCOME
ANNEXURE-4	DEVELOPMENT COST
ANNEXURE-5	RECURRING PRODUCTION COST
ANNEXURE-6	CASH FLOW STATEMENT
ANNEXURE-7	PROJECTED PROFIT AND LOSS ACCOUNT
ANNEXURE-8	BALANCE SHEET
ANNEXURE-9	CAPITAL ACCOUNT.
ANNEXURE-10	TERM LOAN REPAYMENT AND INTEREST THEREON
ANNEXURE-11	FIXED ASSETS AND DEPRECIATION
ANNEXURE-12	IRR / DISCOUNTED CASH FLOW
ANNEXURE-13	DEBT SERVICE COVERAGE RATIO (DSCR)
ANNEXURE-14	CALCULATION OF PAYBACK PERIOD
ANNEXURE-15	BREAK EVEN ANALYSIS

PROJECT AT A GLANCE

1	Applicant (s) / Legal entity Name		:	xxxxxxxxxx	
2	Constitution / Applicant nature / beneficiary		:	Individuals	
3	NHB Scheme for which DPR is made		:	Development of Commercial Horticulture through Production and Post-Harvest Management of Horticulture Crops:	
4	Project Activity		:	Cultivation of Pomegranate	
5	Land		:		
	1. Land ownership: Owned or on registered lease for minimum of 10 effective years from the date of IPA.		:	Owned	
	2. Project Area and Survey /khasra/ Gat/Dag No.		:	xxxxxxxxxx	
	3. Project Site Address with Postal Code		:	Xxxxxxxxxx	
6	Technical feasibility		:		
	1. Agro-climatic suitability		:	Open Cultivation	
	2. Crop husbandry / PHM		:	ICAR	
7	Existence of similar project activity in the said District		:	Yes, there are many such projects	
8	Whether the project is located in the crop cluster/ hub/ belt		:	No	
9	Project economic period/ economic life		:	7 Years	
10	Total Project Cost of the proposal		:		
11	· Open field condition or Protected Cover		:	-	
	· Integrated Post Harvest Management		:		
	· Total		:	26.40 Laks	
12	Project completion period (in months)		:		
	Expected Implementation timeline	Commencement	:		
		Completion	:		
13	Bank/ Financial Institution identified for Term loan		:		
14	Proposed Means of Finance	Promoters contribution (in Lakh Rs.) & %	:	6.60	25%
		Bank Term loan (in Lakh Rs.) & %	:	19.80	75%
		Un secured loan (in Lakh Rs.) & %	:	0.00	0%
		Total	:	26.40	100%
15	Gestation period		:	2.11	
16	Projected Key Financial Parameters	Current Ratio other than export units	:		
		CR-Export units	:	NA	
		IRR /BCR	:	53.54%	
		DSCR*	:	1.50	
		Average DSCR	:	2.31	
		Debt to Equity Ratio i.e DER	:	NA	
		TOL/TNW	:		
		Promoters Contribution	:	25%	
17		Break Even Point - Rs. Lakhs	:	10.38	
		Security Coverage Ration	:		
18	Repayment period (Years)		:		
18	Productivity expected (in MT/Qtl/Kg/numbers)		:		
21	Likely Gap in productivity compared to National /Global average		:	NO Gap	
19	Potential Market (s)for the commodity and distance from the project site		:	APMC Market and Local Market	
20	Employment generation	Direct- regular per annum	:		
		In-direct – Man days per annum	:		

About the Applicant / Promoter and his her entrepreneurship

A. About Applicant / Promoter

1.1. In case of Individuals or Group of farmers (if applicable)

(I)	Individual		Individual
	1. Name of Farmer / Entrepreneur/Individual/ Proprietor		
	2. Parents or spouse name of Individual		
(II)	Group of Farmer growers / SHG- Promoters		
	1. Name of Group		NA
	2. Names of all members of group with their father, mother/husband/ wife name		NA
	Name / Title		
	1. Incorporation / Registration number/ CIN & date of registration		NA
	2. Act under which Registered		NA
	3. Registering authority		NA
	4. Name of Promoter / CEO/CMD/MD/		NA
	5. If it is FPO/ FPC/ Producers Co-op society / Growers Co-operative Marketing federation- Please specify		NA
	6. If it is Reg. Society/ Company/ Corporation / Partnership firm /		NA
	Proprietary firm- Please specify		NA
	7. Name of Promoter (s)/ Board of Directors/ Partners etc.		NA
	8. Status of the promoter / applicant in the legal entity-please specify		NA
	9. Whether the promoter / applicant is authorised by the Legal entity- Yes/No		NA
	10. In case of Company/partnership firms / legal person		NA
	a. Certified copy of Company/Partnership incorporation/ registration certificate issued by Competent Authority, as applicable		NA
	b. Certified copy of MoA/Bye Laws		NA
	c. Certified copy of Board of Directors Resolution duly passed and authorizing signatory of application to apply for IPA		NA
	d. Certified copy of latest Audit Report, if applicable		NA
	i. (are to be made available in case the project and the application is considered for processing.- State Yes/No		NA
	11. NGO- Specify- give details of registration		NA

1.3. Government Institutions / Organisations-- Please specify (if applicable)		
(i) Marketing Board / Agricultural Produce Marketing Committee APMC		NA
(ii) Municipal Corporation		NA NA NA
(iii) PSU/ Agro-Industries Corporation		
(iv) ICAR/CAU/SAU/ Government R&D Institution		
1.4. Statutory registration		
a. PAN No		
b. Aadhaar No.		
c. Others (if any)		NA
1.5. Correspondence Address		
	Telephone	
	Mobile	
	Email id	
	Fax if any:	
1.6. Project / Site Address		
1.7. Social Category (In case of legal entity the CEO and Board of Directors social category is to be mentioned)	General / SC/ST- General	YES
	OBC	NA
	Minority	NA
	(Muslim/Christians/Sikhs/Buddhists/Parsis/Jains)	
	In case of SC/ST applicants a Certified copy of Caste Certificate issued by Competent Authority is to be enclosed. In case of others a self- declaration is to be enclosed.	NA
1.8. Location: TSP / NE Region / Hilly States	In case of TSP a self-attested copy of notification is to be enclosed.	NA
1.9. Gender	Male / Female/Transgender	

2. Details of benefits availed / proposed to be availed by the applicant

Details of benefits availed / proposed to be availed by the applicant either individually or as a member of Association of growers, Group of Farmer Growers/consumers, Farmers Producer Organisations (FPOs), Self Help Groups, Partnership/ Proprietary Firms, NGOs, Companies (as a Board of Director), Corporations, Cooperatives, Co-operative Marketing federations from (i) NHB and (ii) other Ministries/ organisations of Central Government and (iii) State Governments including NHM for Horticulture related projects.

Note: The beneficiary should be truthful. In case any information is received later on at any stage about his/her availing of benefit which is not disclosed hereunder will entitle NHB to reject the current proposal and recover the funds if already released.

In this / proposed project and location:

1. Whether the proposed project proposal has been submitted for consideration under any State Government or Central Government Scheme for financial grant? If yes, give details. NO

Constitution – Individually or in any form	Ministry/ Organisation	Scheme Name	Project code & Activity	Project Location	Land Survey No	Eligible Project cost (Rs.in lakhs)	Total subsidy/ grant (Rs.in lakhs)	Current status of project- Operational / underutilised / closed
----- Nil -----								

Attention:

In case the project application is considered for IPA, the applicant shall have to enclose No Objection Certificate from State Government / State Horticulture Mission that there is no duplication of funding for the project and the applicant shall also submit self-declaration that he/she is not availing government subsidy / grant / assistance from any other ministry for this project, before conducting joint inspection by NHB Team. NO

Project Report on Hi-Tech Cultivation of Pomegranate

2. In earlier / any other Project (s): Whether any assistance in the form of soft loan and/or any subsidy has been availed from NHB, other Central Govt. organization or State Government for the same activity on the same piece of land, khasra/ Gat/Dag/ etc either

in his / her own name individually or in the name of his/her family members h he/she is the beneficiary either in the same location, project. - Yes/ No. If Yes, Please provide details

Constitution – Individually or in any form	Ministry/ Organisation	Scheme Name	Project code & Activity	Project Location	Land Survey No	Eligible Project cost (Rs.in lakhs)	Total subsidy/ grant (Rs.in lakhs)	Current status of project- Operational / underutilised / closed
----- Nil -----								

* In case of earlier NHB-assisted project and where proposals envisioning fresh/new projects are proposed, the earlier project(s) should not have been abandoned (economic life).

2.3. Please provide self certified, self drawn hand sketch of earlier and the proposed project.

3. About the Project, Justification, Management and Description

3.1.About the Project

a.	Name of the proposed activity	:	Cultivation of Pomegranate.
-----------	--------------------------------------	----------	-----------------------------

Name of the scheme and component	Unit	Tick mark relevant component
Development of Commercial Horticulture through Production and Post-Harvest Management of Horticulture Crops		
1. Open field condition		✓
2. Protected cover for specified crops		
3. Integrated PHM		
3.1.Pack House		
3.2.Integrated Pack house		
3.3.Pre-cooling unit		
3.4. Cold Room (Staging)		
3.5. Mobile Pre-cooling unit		
3.6.Ripening Chamber		
3.7 Primary Processing		
3.8 Reefer Van		
3.9.Retail outlet (environmentally controlled)		
3.10. Labour / Store room		✓

b. Proposed Project Area:

Activity	Area proposed
Cultivation –	
Open Cultivation (Ha) / Protected Cultivation (Sq.Mt)	
PHM	
Plant and Machinery	
Any other activity	

c. Details of Crop in case of Open field condition / Protected cover

Name of the Crops	Variety / Hybrid/	Area (Sq Mtr)	No. of plants	Source of Planting Material
Pomegranate	-	217800	1330	Local

3.2 Project Site/ Land details-RoR/ Ownership / Registration of lease/ map etc.

A	Name of Owner of land proposed for the project as per Land Revenue Records		xxxxxxxxxxxx		
	Whether title of the land is clear in the name of applicant and is free from any litigation		YES		
	How Title is derived	Ancestral	Ancestral		
		Purchased (with details of date)	NA		
Encumbrances if any			Legal search report enclosed		
B	Name of the Owner in case of joint ownership		Survey/ Gat//khasra No etc.	Area in Sq.mt / Ha	Share
	1.				
	2.				
	3.				
	Whether land boundaries are demarcated for the applicant clearly.		YES		
	Whether land is in possession of the Applicant		YES		
C	In case of Partnership				
	1.	Whether land is owned by Partnership firm or jointly by its partners	NA		
	2.	NOC: If land is owned by one of the partner, an undertaking by land owner is required stating that he/she will not withdraw, sale or transfer his/her land during currency period of the project	NA		
	3.	Whether land is in possession of the Applicant			

D	In case of Lease		
	1.	In case the land is that of leased, Registration details of the said leased land in the office of Sub-Registrar	NA
	2.	No.of Years of lease	NA
	3.	Whether lease is entered in RoR	NA
	Whether land is in possession of the Applicant		NA
E	Whether land is mortgaged? If yes provide details of mortgagor and mortgagee		The Land is not mortgaged

3.3 Location of the Project- Identification

(Longitude, Latitude, Altitude, Village, GP, Block, District, State), Area, Number of growers.

1	Location Address		
	a. Survey/Khasra/ Dag/ Other No		
	b. Habitation/ Village		XXXXXXXXXX
	c. Gram Panchayat / Urban body		XXXXXXXXXX
	d. Block / Urban body		
	e. Sub-Division		
	f. District		XXXXXXXXXX
	g. State /UT		XXXXXXXXXX
	Location Longitude, Latitude & Altitude		
	Total Area of land owned (ha)		
	Total Area proposed for project (ha)		5 Acer

Current use of land of proposed Project Area

Proposed Project			Current usage	
Survey / Dag etc. No	Nature of land Dry/ Irrigated/ Waste land	Area (ha)	Activity / Crop	Area (ha)

Existing infrastructure and assets possessed by the Applicant, please specify:

S. No.	Name of existing infrastructure and assets	Remarks

Lay out plan of the project, wherever applicable / Map of Farm / production/ Operations unit / project land showing project details and land boundary details NA

Conversion of Land Use (CLU), wherever applicable

Whether Land in possession of the applicant is with/ without approval for industrial use/Whether CLU permission for the project has been received from competent authority: If Yes- Please provide a copy of the same.

ABOUT THE PROJECT

1. INTRODUCTION

Pomegranate (*Punicagranatum*) is one of the commercially important fruit crops of India. It is native to Iran (Persia).

2. OBJECTIVE

The main objective of this report is to present a one acre bankable model for high quality commercial cultivation of the crop.

3. BACKGROUND

3.1 Area & Production

Pomegranate is cultivated commercially only in Maharashtra. Small scale plantations are also seen in Gujarat, Rajasthan, Karnataka, Tamil Nadu, Andhra Pradesh, Uttar Pradesh, Punjab and Haryana.

3.2 Economic Importance

Fruit is consumed fresh or in the form of juice, jam, squash and syrup. Among all forms, canned slices and juice are in much demand in India, constituting about 70% of the production.

4. MARKET ANALYSIS AND STRATEGY

4.1 Export/Import Trends

India exports pomegranate mainly to Bahrain, Kuwait, Oman, Saudi Arabia, U.A.E., Netherlands etc. Varieties which are in demand internationally include Ganesh and Aarakta.

4.2 Analysis and Future Strategy

Development of infrastructure facilities for transport to primary markets, standardization of packaging techniques are aspects which need special attention. Processing facilities also need to be created in the major producing states for value addition.

5. PRODUCTION TECHNOLOGY

5.1 Agro-climatic requirements

Pomegranate grows well under semi-arid conditions and can be grown upto an altitude of 500 m. above m.s.l.. It thrives well under hot, dry summer and cold winter provided irrigation facilities are available. The tree requires hot and dry climate during fruit development and ripening. Pomegranate tree is deciduous in areas of low winter temperature and an evergreen or partially deciduous in tropical and sub-tropical conditions. It can tolerate frost to a considerable extent in dormant stage, but is injured at temperature below - 11⁰ C. Well drained, sandy loam to deep loamy or alluvial soils is suitable for cultivation.

5.2 Varieties Cultivated

Important pomegranate varieties cultivated in India are Alandi or Vadki, Dholka, Kandhari, Kabul, Muskati Red, Paper Shelled, Spanish Ruby, Ganesh (GB I), G 137, P 23, P 26, Mridula, Aarakta, Jyoti, Ruby, IIHR Selection, Yercaud 1 and Co 1.

5.3 Land Preparation

Land is prepared by ploughing, harrowing, leveling and removing weeds.

5.4 Planting

5.4.1 Planting Material

Pomegranate is propagated vegetatively by cuttings, air layering or gootee.

5.4.2 Planting season

Air layering is usually done during the rainy season and also in November-December. Planting is usually done in spring (February-March) and July-August in sub-tropical and tropical regions respectively.

5.4.3 Spacing

High density planting is adopted in temperate regions. A spacing of 5-6 m. in northern India and also in the plains of Deccan plateau is usually followed. High density planting with a spacing gives 2-2.5 times more yield than that obtained when the normal planting distance of 5 X 5 m. is adopted. Farmers have adopted a spacing of 2.5 X 4.5 m. Closer spacing increases disease and pest incidence.

5.4.4 Planting Method

Square system of planting is mostly adopted. Planting distance is decided on the basis of soil type and climate. A spacing of 4-5 m. on marginal and very light soils is recommended.

Pits of 60 X 60 X 60 cm. size are dug (at a spacing of 5 cm. in square system) about a month prior to planting and kept open under the sun for a fortnight. About 50 g. of 5% BHC or carbaryl dust is dusted on the bottom and sides of the pits as a pre-caution against termites. The pits are filled with top soil mixed with 20 kg. farmyard manure and 1 kg. super phosphate. After filling the pit, watering is done to allow soil to settle down. Cuttings/air layers are then planted and staked. Irrigation is provided immediately after planting.

5.5 Nutrition

The recommended fertilizer dose is 600-700 g. N, 200-250 g. P_2O_5 and 200-250 g. K_2O /tree/year. Application of 10 kg. farmyard manure and 75 g. ammonium sulphate to 5 year old tree annually is adequate, whereas application of 50 kg. farmyard manure and 3.5 kg. oil cake or 1 kg. sulphate of ammonia prior to flowering is ideal for healthy growth and fruiting. The time of application is December/January for ambehahar, May/June for Mrigbahar and October/November for hasthebahar.

The basal dose of farmyard manure @ 25-40 cart-loads /ha. besides the recommended doses of N, P and K should be applied to non-bearing trees in 3 split doses coinciding with growth of flushes during January, June and September. Fruiting should be encouraged from fourth year onwards. Nitrogenous fertilizer is applied in two split doses starting at the time of first irrigation after bahar treatment and next at 3 weeks interval, whereas full dose of P and K should be applied at one time. These should be applied in a shallow circular trench below tree canopy not beyond a depth of 8-10 cm. After application, fertilizers are covered with top soil and irrigated.

5.6 Irrigation

First irrigation is provided in case of mrigbahar crop in the middle of May followed by regular irrigation till the monsoon sets in. Weekly irrigation in summers and that during winters at fortnightly intervals is recommended. The check basin system of irrigation is usually followed.

5.6.1 Drip Irrigation

The average annual water requirement through drip irrigation is 20 cm. Drip irrigation helps to save 44% on irrigation and 64% when sugarcane trash mulch is used. It also helps to increase the yield by 30-35%.

5.7 Training

Plants are trained on a single stem or in multi-stem system. Since the crops trained on single stem training system are more susceptible to pests viz. stem borer and shoot hole borer, the other system is more prevalent in the country.

5.8 Pruning

Pruning is not much required except for removal of ground suckers, water shoots, cross branches, dead and diseased twigs and also to give shape to the tree. A little thinning and pruning of old spurs is done to encourage growth of new ones.

5.9 Inter-cropping

Inter-cropping with low growing vegetables, pulses or green manure crops is beneficial. In arid regions, inter-cropping is possible only during the rainy season, whereas winter vegetables are feasible in irrigated areas.

5.10 Regulation of bearing

Pomegranate plants flower and provide fruits throughout the year in central and southern India. Depending on patterns of precipitation, flowering can be induced during June-July (mrighbahar), September-October (hasta bahar) and January-February (ambebahar). In areas having assured rainfall where precipitation is normally received in June and continues upto September, flowering in June is advantageous; where monsoon normally starts in August, flowering during August is beneficial. Areas having assured irrigation potential during April-May, flowering during January can be taken and where monsoon starts early and withdraws by September induction of flowering in October is possible. Considering comparable yields, prices and irrigation needs it is recommended that October cropping could be substituted for January flowering.

5.11 Plant Protection Measures

5.11.1 Insect Pests

Insect pests mostly observed are fruit borer, mealy bugs, aphids, white fly and fruit sucking moths. Spraying with dimethoate, deltamethrin or malathion etc. depending upon the type of pest infestation has been found to be effective in most cases.

5.11.2 Diseases

The main diseases reported are leaf spot and fruit rot. Application of Mancozeb (2g./l.) during rainy season in case of the former and application of Kavach (2g./l) and Carbendazim/Thiophanate methyl/Baycor/Benomyl (1g./l.) during September/October in case of the latter has been found to be effective in most cases.

5.11.3 Disorders

Fruit cracking is a serious disorder. This physiological disorder observed in young fruits is due to boron deficiency and that in fully grown fruits is mainly due to moisture imbalances. Tolerant varieties viz. Bedana Bose and Khog may be cultivated and in other cases spraying with calcium hydroxide soon after fruit set has been found to be beneficial.

5.12 Harvesting and Yield

Pomegranate being a non-climacteric fruit should be picked when fully ripe. Pomegranate plants take 4-5 years to come into bearing. Harvesting of immature or over mature fruits affects the quality of the fruits. The fruits become ready for picking 120-130 days after fruit set. The calyx at the distal end of the fruit gets closed on maturity. At maturity, the fruits turn yellowish-red and get suppressed on sides.

6. POST HARVEST MANAGEMENT

6.1 Grading

Fruits are graded on the basis of their weight, size and colour. The various grades are super, king, queen and prince-sized. Besides that, pomegranates are also graded into two grades- 12A and 12 B. Fruits of 12-A grade are generally preferred in southern and northern region.

6.2 Storage

Fruits can be stored in cold storage upto 2 months or 10 weeks at a temperature of 5⁰ C. Longer storage should be at 10⁰ C and 95% RH to avoid chilling injury and weight loss.

6.3 Packing

The size of packages varies according to the grade of the fruits. Corrugated fibre board boxes are mostly used. In a single box, 4-5 queen sized fruits, 12 prince sized and some of 12-A and 12-B grades may be packed. The white coloured boxes having 5 plies are generally used for export purpose, whereas red-coloured ones having 3 plies are used for domestic markets. The red coloured boxes are cheaper than white coloured ones. The cut pieces of waste paper are generally used as cushioning material.

6.4 Transportation

Road transport by trucks/lorries is the most convenient mode of transport due to easy approach from orchards to the market.

6.5 Marketing

Majority of the growers sell their produce either through trade agents at village level or commission agents at the market.

Project Report on Hi-Tech Cultivation of Pomegranate

ANNEXURE- 1
A. ESTIMATED PROJECT COST

(Rs. In Lacs)

1.Project Cost

Scheme Component	Items		Capacity/ Area/ spacing Etc.	Units/N umbers	Unit Cost (In Rs.)	Cost (In Lacs)
Protected Cultivation	Protected Structure with Micro Irrigation Tubular Structure-Shade Net House		Acer	5.00	28,100.00	1.41
	Planting Material & Cultivation (4.0*3.0)		No Spelling	1,330	40.00	0.53
	Irrigation	Tube well/ bore well/	No	1	100,000.00	1.00
		Open well (Nos.)	No	1	60,000.00	0.60
		Cost of Pipeline	Sq. ft	5	90,000.00	4.50
		Water harvesting structure	No	1	100,000.00	1.00
		Non lined ponds/tanks				-
		Others				-
	Infrastructure	Store & Pump house	Sq. ft	350	400.00	1.40
		Labour room & go	Sq. ft	350	350.00	1.23
		Others				-
	Farm Mechanisation (AC)	Tools and equipment's as per SMAM	LC			9.74
	Land Development- Soil levelling etc.		Acer	5	40,000.00	2.00
	Digging/Fencing etc.		Acer	5	60,000.00	3.00
	Land if newly purchased but not before one year from date of sanction of loan (indicate year)					-
	Vermi Compost Unit					-
	Certification of Good Agri Practices					-
	Good Agricultural Practices (GAP) including infrastructure (AC)					-
	Plastic Mulching (AC)					-
	Others					-
	Total (A)					26.40

2. Post-Harvest Management

Scheme	Items	Capacity/ Area/ spacing Etc.	Units/N umbe rs	unit Cost	Cost
Integrated PHM	1.Integrated PHM				
	2 Integrated Pack house	-	-	-	-
	3 Pack House	-	-	-	-
	4 Pre-cooling unit	-	-	-	-
	5.Cold Room (Staging)	-	-	-	-
	6 Mobile Pre-cooling unit	-	-	-	-
	7 Ripening Chamber	-	-	-	-
	8 Primary Processing	-	-	-	-
	9 Retail outlet (environmentally controlled)	-	-	-	-
	Others	-	-	-	-
	Total (B)	-	-	-	0.00

3.Summary of Project Cost

Items		Project Cost Rs. Lakhs	Max.possible NHB support (self-appraisal)
1.Open field condition	With add on components Without add on		
	Without add on components		
2.Protected Cover of NHB specified crops	With add on components Without add on		
	Without add on components	26.40	
3.Integrated PHM			
	3.1.Integrated Pack House	-	
	3.2.Pack house	-	
	3.3.Pre-cooling unit	-	
	3.4. Cold Room (Staging)	-	
	3.5. Mobile Pre-cooling unit	-	
	3.6.Ripening Chamber	-	
	3.7 Primary Processing	-	
	3.8 Retail outlet	-	
	3.9.Refer Van	-	
Grand Total		26.40	

Project Report on Hi-Tech Cultivation of Pomegranate
--

B. Means of Finance

(Rs. In Lacs)

S.No	Item	Components
1	Promoters share	25% 6.60
2	Bank/FI Term loan	75% 19.80
3	Un secured loan/VCA	0.00
Total		26.40
4	Subsidy from NHB @ 40%	10.56
National Horticulture Board (NHB)		

ANNEXURE- 2
PRODUCTION & POFITABILITY STATEMENT

(Rs. In Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
A	Income	10.11	10.61	11.14	11.70	12.29	12.90	13.55
B	Expenses	2.58	2.67	2.76	2.87	2.99	3.12	3.26
C	EBDIT(B-D)	7.53	7.95	8.38	8.83	9.30	9.78	10.29
	Depreciation	3.00	2.15	1.88	1.65	1.44	1.26	1.11
D	EBIT Operating Profit)	4.53	5.80	6.50	7.18	7.86	8.52	9.18
	Int. on TL	2.21	1.87	1.53	1.19	0.85	0.51	0.17
E	EBT	2.32	3.93	4.97	6.00	7.01	8.01	9.01
	Income Tax	-	-	-	-	-	-	-
F	EAT	2.32	3.93	4.97	6.00	7.01	8.01	9.01
G	Add : Depreciation	3.00	2.15	1.88	1.65	1.44	1.26	1.11
H	Add : Interest on TL	2.21	1.87	1.53	1.19	0.85	0.51	0.17
I	Cash Accruals	7.53	7.95	8.38	8.83	9.30	9.78	10.29
J	Repayment of TL with Interest	5.04	4.70	4.36	4.02	3.68	3.34	3.00
K	N.P. to Total receipts	22.97	37.03	44.62	51.25	57.04	62.09	66.50

ANNEXURE- 3 INCOME

(Rs. Lacs)

S. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
1	Total Number of plants (in one cycle of 90 days) @ 3.5 plants per sq.m* 4000 sq.m.	1,330	1,330	1,330	1,330	1,330	1,330	1,330
	Mortality 5%	67	67	67	67	67	67	67
	Total plants for production	1,264	1,264	1,264	1,264	1,264	1,264	1,264
2	Production of Pomegranate (MT) @ 5 kg yield per plant	6.32	6.32	6.32	6.32	6.32	6.32	6.32
3	Selling price per MT of Pomegranate	0.80	0.84	0.88	0.93	0.97	1.02	1.07
4	Income from one cycle of Pomegranate production	5.05	5.31	5.57	5.85	6.14	6.45	6.77
5	Income from 2 cycle of Pomegranate production in a year	10.11	10.61	11.14	11.70	12.29	12.90	13.55
	Total	10.11	10.61	11.14	11.70	12.29	12.90	13.55

Project Report on Hi-Tech Cultivation of Pomegranate

ANNEXURE- 5
RECURRING PRODUCTION COST

(Rs. Lacs)

Sr No.	Particulars	Scale	Rate in RS.	Recurring Expenses							
				Units in Nos. / Kg.	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
					Amt.	Amt.	Amt.	Amt.	Amt.	Amt.	Amt.
A	Manure/Fertilizers/ Chemicals										
	Manure / Fertilizers / Chemicals	Acer	7000	5	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	PP Chemicals (Malathion)	Acer	7000	5	0.35	0.35	0.35	0.35	0.35	0.35	0.35
					0.70	0.70	0.70	0.70	0.70	0.70	0.70
B	Labour Cost										
	Land Preparation & Planting										
	Inter-Cultural & Other Farm Operation	Acer	15000	5	0.75	0.75	0.75	0.75	0.75	0.75	0.75
					0.75	0.75	0.75	0.75	0.75	0.75	0.75
C	Other Cost										
	Power Charges	Unit	10	1800	0.18	0.20	0.22	0.24	0.26	0.29	0.32
					0.18	0.20	0.22	0.24	0.26	0.29	0.32
D	Harveting & Transportation Cost										
	Harvesting / Grading / Packing	Mandas	1000	5	0.05	0.06	0.06	0.07	0.07	0.08	0.09
	Packing	Per Ton	10000	5	0.50	0.55	0.61	0.67	0.73	0.81	0.89
	Transportation	Per Ton	3000	5	0.15	0.17	0.18	0.20	0.22	0.24	0.27
					0.70	0.77	0.85	0.93	1.02	1.13	1.24
E	Contingency & Unforeseen Exp.										
	General Expenses	LS	5000	5	0.25	0.25	0.25	0.25	0.25	0.25	0.25
					0.25	0.25	0.25	0.25	0.25	0.25	0.25
	Grand Total				2.58	2.67	2.76	2.87	2.99	3.12	3.26
	Revenue										
	Sales	Rs/Ton			10.11	10.61	11.14	11.70	12.29	12.90	13.55
	Grand Total				10.11	10.61	11.14	11.70	12.29	12.90	13.55

ANNEXURE- 6
CASH FLOW STATEMENT

(Rs. In Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
A	Inflow :							
1	Cash flow from Opration	7.53	7.95	8.38	8.83	9.30	9.78	10.29
2	T.L. from Bank	19.80						
3	Own contribution	6.60						
4	CC from bank	-						
5	Subsidy	10.56						
	Total (A)	44.49	7.95	8.38	8.83	9.30	9.78	10.29
B	Outflow:							
1	Fixed Assets	20.87	-	-	-	-	-	-
2	Payments to creditors	-	-	-	-	-	-	-
3	Income Tax	-	-	-	-	-	-	-
4	Repayment of TL & Interest	5.04	4.70	4.36	4.02	3.68	3.34	3.00
5	Drawings	2.50	2.75	3.03	3.33	3.66	4.03	4.43
	Total (B)	28.41	7.45	7.38	7.34	7.34	7.36	7.43
	Summery:							
	Op. Cash & Bank Bal.	-	16.09	16.59	17.58	19.07	21.03	23.45
	Surplus / (Deficit)	16.09	0.50	1.00	1.49	1.96	2.42	2.86
	Cl. Cash & Bank Bal.	16.09	16.59	17.58	19.07	21.03	23.45	26.31

ANNEXURE- 7
PROJECTED PROFIT AND LOSS ACCOUNT

(Rs. In Lacs)

Sr No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
A	Income	10.11	10.61	11.14	11.70	12.29	12.90	13.55
B	Expenses	2.58	2.67	2.76	2.87	2.99	3.12	3.26
C	Gross Profit	7.53	7.95	8.38	8.83	9.30	9.78	10.29
	Depreciation	3.00	2.15	1.88	1.65	1.44	1.26	1.11
D	EBIT Operating Profit)	4.53	5.80	6.50	7.18	7.86	8.52	9.18
	Interest on Term Loan	2.21	1.87	1.53	1.19	0.85	0.51	0.17
E	Profir Before Tax	2.32	3.93	4.97	6.00	7.01	8.01	9.01
	Income Tax		-	-	-	-	-	
F	Profir After Tax	2.32	3.93	4.97	6.00	7.01	8.01	9.01
	Add : Depreciation	3.00	2.15	1.88	1.65	1.44	1.26	1.11
	Add : Interest on TL	2.21	1.87	1.53	1.19	0.85	0.51	0.17
G	Cash Accruals	7.53	7.95	8.38	8.83	9.30	9.78	10.29
	PROFIT & LOSS ACCOUNT							
	Opening Balance	-	2.32	12.94	24.08	35.78	48.07	60.97
	Closing Balance	2.32	12.94	24.08	35.78	48.07	60.97	74.51

Project Report on Hi-Tech Cultivation of Pomegranate
--

ANNEXURE- 8
BALANCE SHEET

(Rs. In Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
A	ASSETS :							
1	Fixed Assets :	17.87	15.72	13.84	12.20	10.76	9.49	8.38
2	Investments	-	-	-	-	-	-	
3	Current Assets	16.09	16.59	17.58	19.07	21.03	23.45	26.31
4	Loans & Advances	-	-	-	-	-	-	
	Total (A)	33.96	32.31	31.43	31.27	31.78	32.94	34.69
B	LIABILITIES:							
1	Capital	16.98	18.16	20.11	22.78	26.13	30.11	34.69
2	Secured loans	16.97	14.14	11.32	8.49	5.66	2.83	-
3	Current Liabilities	-	-	-	-	-	-	
	Total (B)	33.96	32.31	31.43	31.27	31.78	32.94	34.69

ANNEXURE- 9
CAPITAL ACCOUNT

(Rs. In Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
1	Op. Balance	-	16.98	18.16	20.11	22.78	26.13	30.11
2	Additions	17.16	-	-	-	-	-	
3	Net Profit	2.32	3.93	4.97	6.00	7.01	8.01	9.01
	Sub Total	19.48	20.91	23.14	26.11	29.79	34.14	39.12
4	Drawings	2.50	2.75	3.03	3.33	3.66	4.03	4.43
5	Closing Balance	16.98	18.16	20.11	23	26.13	30.11	34.69

ANNEXURE- 10
TERM LOAN REPAYMENT AND INTEREST THEREON

(Rs. Lacs)

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
1	TL / Op. Bal.	19.80	16.97	14.14	11.32	8.49	5.66	2.83
2	Repayment during the year	2.83	2.83	2.83	2.83	2.83	2.83	2.83
3	Cl. Balance	16.97	14.14	11.32	8.49	5.66	2.83	-
4	Average Balance	18.39	15.56	12.73	9.90	7.07	4.24	1.41
5	Interest at 12 per cent p.a.	2.21	1.87	1.53	1.19	0.85	0.51	0.17
6	Total repayment with Interest	5.04	4.70	4.36	4.02	3.68	3.34	3.00
	Total Interest	2.21	1.87	1.53	1.19	0.85	0.51	0.17

Rate of interest - % per annum : 12.00

Opening balance of term loan : 19.80

Year	Loan Outstanding	Gross Surplus	Principal	Interest	Total Repayment	Net Surplus
1	19.80	7.53	2.83	2.38	5.20	2.32
2	16.97	7.95	2.83	2.04	4.87	3.08
3	14.14	8.38	2.83	1.70	4.53	3.85
4	11.32	8.83	2.83	1.36	4.19	4.64
5	8.49	9.30	2.83	1.02	3.85	5.45
6	5.66	9.78	2.83	0.68	3.51	6.28
7	2.83	10.29	2.83	0.34	3.17	7.12

ANNEXURE-11
FIXED ASSETS AND DEPRECIATION

(Rs. In Lacs)

S. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
1	Infrastructure							
	Op. Balance	-	2.36	2.13	1.91	1.72	1.55	1.40
	Additions	2.63	-	-	-	-	-	-
	Sub Total	2.63	2.36	2.13	1.91	1.72	1.55	1.40
	Less : Depreciation	0.26	0.24	0.21	0.19	0.17	0.16	0.14
	Cl. WDV	2.36	2.13	1.91	1.72	1.55	1.40	1.26
2	Irrigation							
	Op. Balance	-	7.23	6.14	5.22	4.44	3.77	3.21
	Additions	8.51	-	-	-	-	-	-
	Sub Total	8.51	7.23	6.14	5.22	4.44	3.77	3.21
	Less : Depreciation	1.28	1.08	0.92	0.78	0.67	0.57	0.48
	Cl. WDV	7.23	6.14	5.22	4.44	3.77	3.21	2.73
3	Farm Mechanisation (AC)							
	Op. Balance	-	8.28	7.45	6.71	6.04	5.43	4.89
	Additions	9.74	-	-	-	-	-	-
	Sub Total	9.74	8.28	7.45	6.71	6.04	5.43	4.89
	Less : Depreciation	1.46	0.83	0.75	0.67	0.60	0.54	0.49
	Cl. WDV	8.28	7.45	6.71	6.04	5.43	4.89	4.40
	Total Depreciation	3.00	2.15	1.88	1.65	1.44	1.26	1.11
	Total WDV	17.87	15.72	13.84	12.20	10.76	9.49	8.38
	Total Gross Block	20.87	17.87	15.72	13.84	12.20	10.76	9.49
	Less : Total Depreciation	3.00	2.15	1.88	1.65	1.44	1.26	1.11
	[(a)+ (b) + (c) + (d) + (e)]							
	Net Block	17.87	15.72	13.84	12.20	10.76	9.49	8.38

Project Report on Hi-Tech Cultivation of Pomegranate

Annexure - 12
IRR / Discounted Cash Flow

(Rs. In Lacs)

Sr. No.	Particular	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
1	Costs	26.40						
	a) Capital Cost							
	b) Recurring Cost	2.58	2.67	2.76	2.87	2.99	3.12	3.26
2	Total Cost.	28.98	2.67	2.76	2.87	2.99	3.12	3.26
3	A) Sales Income	10.11	10.61	11.14	11.70	12.29	12.90	13.55
	B) Depreciated Value of Assets							9.49
4	Total Benefits	10.11	10.61	11.14	11.70	12.29	12.90	23.04
5	Lower Discount Rate	15%	15%	15%	15%	15%	15%	15%
	a) Discount Factor @ 15%	0.87	0.76	0.66	0.57	0.50	0.43	0.38
	b) Discount Costs @ 15%	25.21	2.03	1.82	1.64	1.49	1.34	1.24
	c) Total Discounted Costs							34.78
	d) Discounted Benefits @ 15%	8.79	8.07	7.36	6.67	6.14	5.55	8.75
	e) Total Discounted Benefits.							51.33
	f) Net Present With (NPW) @ 15%							16.55
	g) Benefit Cost Ratio (BCR) @ 15%						1.48	:1
6	Discount Rate	30%	30%	30%	30%	30%	30%	30%
	a) Discount Factor @ 30%	0.77	0.59	0.46	0.35	0.27	0.21	0.16
	b) Discount Costs @ 30%	22.32	1.57	1.27	1.00	0.81	0.65	0.52
	c) Total Discounted Costs							28.15
	d) Discounted Benefits @ 30%	7.78	6.26	5.13	4.10	3.32	2.71	3.69
	e) Total Discounted Benefits.							32.98
	f) Net Present With (NPW) @ 30%							4.83
	g) Benefit Cost Ratio (BCR) @ 30%						1.17	:1
7	Discount Rate							
	a) Lower Discount Rate				15.00%			
	b) Higher Discount Rate				30.00%			
8	Hence IRR is				53.44			

Note: No Sensitivity Analysis on IRR has been done in view of its already high level.

Project Report on Hi-Tech Cultivation of Pomegranate

Annexure - 13
Debt Service Coverage Ratio (DSCR)

(Rs. In Lacs)

[illegible]

Project Report on Hi-Tech Cultivation of Pomegranate

Annexure - 14

Calculation of Payback Period

(Rs. In Lacs)

[illegible]

Project Report on Hi-Tech Cultivation of Pomegranate
--

Annexure - 15
Break Even Analysis

(Rs. In Lacs)

Sr. No.	Particulars	Amount of Expenditure / Income						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
A.	Total Income	10.11	10.61	11.14	11.70	12.29	12.90	13.55
B.	Variable Cost of Output / Services							
1	Planting Material	0.53	-					
2	Manure / Fertilizers / Chemicals	0.70	0.70	0.70	0.70	0.70	0.70	0.70
1	Harvesting & Transportation Cost	0.70	0.77	0.85	0.93	1.02	1.13	1.24
3	Contingency & Unforeseen Exp.	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3	Other Cost	0.18	0.20	0.22	0.24	0.26	0.29	0.32
TB	Total Variable Cost	2.36	1.92	2.01	2.12	2.24	2.37	2.51
C	Net Contribution = A - TB	7.75	8.70	9.13	9.58	10.05	10.53	11.04
D	Profit Volume Ratio (P/V Ratio = C/A)	76.63	81.93	81.92	81.87	81.78	81.65	81.48
E.	Fixed / Semi Variable Exp							
2	Labour	2.75	0.75	0.75	0.75	0.75	0.75	0.75
5	Shed Net Replacement	-	-	-	-	-	-	-
5	Depreciation	3.00	2.15	1.88	1.65	1.44	1.26	1.11
6	Interest on Term Loan	2.21	1.87	1.53	1.19	0.85	0.51	0.17
TE	Total Fixed Exp	7.96	4.77	4.16	3.58	3.04	2.52	5.56
F	Break Even Sales=TE/D	10.38	5.82	5.07	4.38	3.72	3.09	7.13
G	Margin of Safety = A -F	(0.27)	4.80	6.07	7.32	8.57	9.81	6.42
H	Sales Price	18.00	19.00	20.00	21.00	22.00	23.00	24.00