

Maize Starch & Derivatives

*(Maize Starch, Modified Starches &
Animal Feed) -*

**Manufacturing Plant, Detailed Project Report,
Profile, Business plan, Industry Trends,
Market research, survey, Manufacturing Process,
Machinery, Raw Materials, Feasibility study,
Investment opportunities, Cost and Revenue**

Introduction

Corn starch, corn flour or maize starch is the starch derived from the corn (maize) grain. The starch is obtained from the endosperm of the corn kernel. Corn starch is a popular food ingredient used in thickening sauces or soups, and is used in making corn syrup and other sugars.



Starch or amyllum is a carbohydrate consisting of a large number of glucose units joined by glycosidic bonds. This polysaccharide is produced by most green plants as an energy store. It is the most common carbohydrate in human diets and is contained in large amounts in such staple foods as potatoes, wheat, maize (corn), rice, and cassava.

Starch is processed to produce many of the sugars in processed foods. Dissolving starch in warm water gives wheat paste, which can be used as a thickening, stiffening or gluing agent. The biggest industrial non-food use of starch is as adhesive in the paper making process. Starch can be applied to parts of some garments before ironing, to stiffen them.

Maize Starch is a mixture of polysaccharides about 74% amylopectin and 26% amylose. It is a fine White Powder, odorless, taste slight and characteristic and microbiologically suitable as Pharmaceutical grade, useful in Pharmaceutical and Food Industry as a binder, thickener, disintegrating agents in tableting and various formulations.



Starch derivative is a growing industry, and with technological advancements taking place, new products are being launched on a regular basis. The various stakeholders in the industry are the raw material suppliers, processors, and the product manufacturers.

Starch derivatives are applied in food & beverages, feed, and non-food applications like, pharmaceutical, cosmetics, paper making, bioethanol, and other industrial applications. Asia-Pacific Holds the largest market share in the global starch derivatives market, by geography, and is also estimated to achieve the highest growth rate. Any entrepreneurs venture into this field will be successful.

Few Indian Major Players are as under

- Advanced Bio-Agro Tech Ltd.
- Advanced Enzyme Technologies Ltd.
- Anil Nutrients Ltd.
- Aries Agro Ltd.
- Aries Marketing Ltd.
- Godrej Agrovet Ltd.
- Hanuman Minor Oils Ltd.
- Indo Euro Indchem Ltd.

- Intercorp Biotech Ltd.
- Jupiter Biotech Ltd.
- K S E Ltd.
- Kapila Krishi Udyog Ltd.
- Kerala Feeds Ltd.
- Maharashtra Agro-Inds. Devp. Corpn. Ltd.
- Metahelix Life Sciences Ltd.
- Origin Agrostar Ltd.

- Pan Asia Global Ltd.
- Rama Pashu Aahar Pvt. Ltd.
- S O L Ltd.
- Shalimar Pellet Feeds Ltd.
- Snam Vijaya Feeds Ltd.
- Sonitpur Solvex Ltd.
- Sukhjit Starch & Chemicals Ltd.
- Superhouse Ltd.

Project at a Glance

PROJECT AT A GLANCE				(Rs. in lacs)			
COST OF PROJECT				MEANS OF FINANCE			
Particulars	Existing	Proposed	Total	Particulars	Existing	Proposed	Total
Land & Site Development Exp.	0.00	250.00	250.00	Capital	0.00	723.58	723.58
Buildings	0.00	1019.30	1019.30	Share Premium	0.00	0.00	0.00
Plant & Machineries	0.00	1105.50	1105.50	Other Type Share Capital	0.00	0.00	0.00
Motor Vehicles	0.00	10.00	10.00	Reserves & Surplus	0.00	0.00	0.00
Office Automation Equipments	0.00	206.00	206.00	Cash Subsidy	0.00	0.00	0.00
Technical Knowhow Fees & Exp.	0.00	50.00	50.00	Internal Cash Accruals	0.00	0.00	0.00
Franchise & Other Deposits	0.00	0.00	0.00	Long/Medium Term Borrowings	0.00	2170.73	2170.73
Preliminary & Pre-operative Exp	0.00	5.00	5.00	Debentures / Bonds	0.00	0.00	0.00
Provision for Contingencies	0.00	115.00	115.00	Unsecured Loans/Deposits	0.00	0.00	0.00
Margin Money - Working Capital	0.00	133.51	133.51				
TOTAL	0.00	2894.31	2894.31	TOTAL	0.00	2894.31	2894.31

Project at a Glance

Year	Annualised		Book Value	Debt	Dividend	Retained Earnings		Payout	Probable Market Price	P/E Ratio	Yield Price/ Book Value
										No.of Times	
	EPS	CEPS	Per Share		Per Share	Per Share					
	Rs	Rs	Rs	Rs	Rs	%	Rs	%	Rs		%
1-2	5.30	9.56	15.30	24.00	0.00	100.00	5.30	0.00	5.30	1.00	0.00
2-3	7.85	11.58	23.15	18.00	0.00	100.00	7.85	0.00	7.85	1.00	0.00
3-4	10.41	13.66	33.56	12.00	0.00	100.00	10.41	0.00	10.41	1.00	0.00
4-5	12.92	15.77	46.48	6.00	0.00	100.00	12.92	0.00	12.92	1.00	0.00
5-6	15.38	17.88	61.87	0.00	0.00	100.00	15.38	0.00	15.38	1.00	0.00

Project at a Glance

Year	D. S. C. R.			Debt / - Deposits Debt	Equity as- Equity	Total Net Worth	Return on Net Worth	Profitability Ratio					Assets Turnover Ratio	Current Ratio
	Individu al	Cumulativ e	Overall					GPM	PBT	PAT	Net Contrib ution	P/V Ratio		
	(Number of times)			(Number of times)		%	%	%	%	%		%		
Initial				3.00	3.00									
1-2	1.38	1.38		1.57	1.57	2.29		13.85%	8.34%	5.94%	1991.59	30.86%	1.79	0.97
2-3	1.65	1.51		0.78	0.78	1.33		15.67%	11.39%	7.55%	2244.16	29.81%	1.95	1.27
3-4	1.97	1.65	1.97	0.36	0.36	0.79		16.90%	13.59%	8.75%	2562.87	29.79%	1.99	1.61
4-5	2.36	1.81		0.13	0.13	0.48		17.76%	15.18%	9.66%	2881.57	29.77%	1.95	2.00
5-6	2.84	1.97		0.00	0.00	0.29		18.34%	16.36%	10.35%	3200.28	29.76%	1.87	3.22

Project at a Glance

BEP

BEP - Maximum Utilisation Year	5
Cash BEP (% of Installed Capacity)	38.98%
Total BEP (% of Installed Capacity)	44.62%

IRR, PAYBACK and FACR

Internal Rate of Return .. (In %age)	26.02%
Payback Period of the Project is (In Years)	2 Years 5 Months
Fixed Assets Coverage Ratio (No. of times)	6.624

Table of Contents of the Project Report

1. District Profile & Geotechnical Site Characterization

1.1. General

1.2. Physical Characteristics

1.3. Climate and Rainfall

1.4. Map

1.5. Transport

1.6. Economy & Industry

2. Introduction

3. Types of Starches

- 3.1. Cationic Starches**
- 3.2. Starch Graft Polymers**
- 3.3. Oxidation of Starch**
- 3.4. Starch-based Plastics**
- 3.5. Encapsulation/Controlled Release**
- 3.6. Physically Modified Starch**
- 3.7. Pregelatinization of Starch in a Water-nonsolvent Solution**
- 3.8. Starch Granule Disruption by Mechanical Force**
- 3.9. Thermal Treatments**

4. Uses and Applications

5. Properties

5.1. Properties of Starch

5.2. Physical Properties

5.3. Chemical Properties

6. Specification

7. Utilisation Pattern of Maize

8. Market Survey

8.1. Starch Demand

8.2. Starch Industry in India

9. Financials & Comparison of Major Indian Players/Companies

9.1. About Financial Statements of CMIE Database

9.2. Profits & Appropriations

9.3. Total Liabilities

9.4. Total Assets

9.5. Net Cash Flow from Operating Activities

9.6. Section – I

- 9.6.1. Name of Company with Contact Details**
- 9.6.2. Name of Director(S)**
- 9.6.3. Plant Capacity**
- 9.6.4. Location of Plant**
- 9.6.5. Name of Raw Material(S) Consumed With
Quantity & Cost**

9.7. Section – II

- 9.7.1. Assets**
- 9.7.2. Cash Flow**
- 9.7.3. Cost as % Ge of Sales**
- 9.7.4. Forex Transaction**

- 9.7.5. Growth in Assets & Liabilities
- 9.7.6. Growth in Income & Expenditure
- 9.7.7. Income & Expenditure
- 9.7.8. Liabilities
- 9.7.9. Liquidity Ratios
- 9.7.10. Profitability Ratio
- 9.7.11. Profits
- 9.7.12. Return Ratios
- 9.7.13. Structure of Assets & Liabilities (%)
- 9.7.14. Working Capital & Turnover Ratios

10. Export & Import Statistics Data of India

10.1. Export Statistics Data for Maize Starch

- 10.2. Import Statistics Data for Maize Starch**
- 10.3. Export Statistics Data for Modified Starch**
- 10.4. Import Statistics Data for Maize Starch**
- 10.5. Export Statistics Data for Animal Feed**
- 10.6. Import Statistics Data for Animal Feed**

11. Present Manufacturers

12. Raw Material

13. Manufacturing Process of Starch

14. Manufacturing Process of Modified Starch

15. Manufacturing Process of Animal Feed

16. Process Flow Diagram

17. Suppliers of Raw Material

18. Suppliers of Plant & Machinery

18.1. Complete Machinery Suppliers

19. Plant Layout

20. Raw Material, Product & Machinery Photographs

Project Financials

• Project at a Glance Annexure

- Assumptions for Profitability workings1
- Plant Economics.....2
- Production Schedule.....3
- Land & Building.....4

Factory Land & Building
Site Development Expenses

- **Plant & Machinery.....5**
 - Indigenous Machineries
 - Other Machineries (Miscellaneous, Laboratory etc.)
- **Other Fixed Assets.....6**
 - Furniture & Fixtures
 - Pre-operative and Preliminary Expenses
 - Technical Knowhow
 - Provision of Contingencies
- **Working Capital Requirement Per Month.....7**
 - Raw Material
 - Packing Material
 - Lab & ETP Chemical Cost
 - Consumable Store

- **Overheads Required Per Month and Per Annum.....8**
 - Utilities & Overheads (Power, Water and Fuel Expenses etc.)**
 - Royalty and Other Charges**
 - Selling and Distribution Expenses**
- **Salary and Wages9**
- **Turnover Per Annum10**
- **Share Capital.....11**
 - Equity Capital**
 - Preference Share Capital**

- **Annexure 1 :: Cost of Project and Means of Finance**
- **Annexure 2 :: Profitability and Net Cash Accruals**
 - **Revenue/Income/Realisation**
 - **Expenses/Cost of Products/Services/Items**
 - **Gross Profit**
 - **Financial Charges**
 - **Total Cost of Sales**
 - **Net Profit After Taxes**
 - **Net Cash Accruals**

- **Annexure 3 :: Assessment of Working Capital requirements**

- **Current Assets**
- **Gross Working Capital**
- **Current Liabilities**
- **Net Working Capital**
- **Working Note for Calculation of Work-in-process**

- **Annexure 4 :: Sources and Disposition of Funds**

- **Annexure 5 :: Projected Balance Sheets**

- **ROI (Average of Fixed Assets)**
- **RONW (Average of Share Capital)**
- **ROI (Average of Total Assets)**

- **Annexure 6 :: Profitability Ratios**

- **D.S.C.R**
- **Earnings Per Share (EPS)**
- **Debt Equity Ratio**

- **Annexure 7 :: Break-Even Analysis**

- **Variable Cost & Expenses**
- **Semi-Variable/Semi-Fixed Expenses**
- **Profit Volume Ratio (PVR)**
- **Fixed Expenses / Cost**
- **B.E.P**

- **Annexure 8 to 11 :: Sensitivity Analysis-Price/Volume**

- **Resultant N.P.B.T**
- **Resultant D.S.C.R**
- **Resultant PV Ratio**
- **Resultant DER**
- **Resultant ROI**
- **Resultant BEP**

- **Annexure 12 :: Shareholding Pattern and Stake Status**
 - **Equity Capital**
 - **Preference Share Capital**
- **Annexure 13 :: Quantitative Details-Output/Sales/Stocks**
 - **Determined Capacity P.A of Products/Services**
 - **Achievable Efficiency/Yield % of Products/Services/Items**
 - **Net Usable Load/Capacity of Products/Services/Items**
 - **Expected Sales/ Revenue/ Income of Products/ Services/ Items**

- **Annexure 14** :: **Product wise Domestic Sales Realisation**
- **Annexure 15** :: **Total Raw Material Cost**
- **Annexure 16** :: **Raw Material Cost per unit**
- **Annexure 17** :: **Total Lab & ETP Chemical Cost**
- **Annexure 18** :: **Consumables, Store etc.**
- **Annexure 19** :: **Packing Material Cost**
- **Annexure 20** :: **Packing Material Cost Per Unit**

- **Annexure 21** :: **Employees Expenses**
- **Annexure 22** :: **Fuel Expenses**
- **Annexure 23** :: **Power/Electricity Expenses**
- **Annexure 24** :: **Royalty & Other Charges**
- **Annexure 25** :: **Repairs & Maintenance Expenses**
- **Annexure 26** :: **Other Manufacturing Expenses**
- **Annexure 27** :: **Administration Expenses**
- **Annexure 28** :: **Selling Expenses**

- **Annexure 29 :: Depreciation Charges – as per Books (Total)**
- **Annexure 30 :: Depreciation Charges – as per Books (P & M)**
- **Annexure 31 :: Depreciation Charges - as per IT Act WDV (Total)**
- **Annexure 32 :: Depreciation Charges - as per IT Act WDV (P & M)**
- **Annexure 33 :: Interest and Repayment - Term Loans**
- **Annexure 34 :: Tax on Profits**
- **Annexure 35 :: Projected Pay-Back Period and IRR**

Niir Project Consultancy Services (NPCS)
can provide Detailed Project Report on
Maize and its By Products
*(Maize Starch, Modified Starches &
Animal Feed) -*

See more

<http://goo.gl/fX08hQ>

<http://goo.gl/ENF1sH>

<http://goo.gl/ATkIEG>





Visit us at

www.entrepreneurindia.co

**Take a look at
NIIR PROJECT CONSULTANCY SERVICES
on #Street View**

<https://goo.gl/VstWkd>

Locate us on Google Maps

<https://goo.gl/maps/BKkUtg9gevT2>

Niir PROJECT CONSULTANCY SERVICES

An ISO 9001:2008 Company



Who are we?

- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
- *We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad*



What do we offer?

- *Project Identification*
- *Detailed Project Reports/Pre-feasibility Reports*
- *Market Research Reports*
- *Technology Books and Directory*
- *Databases on CD-ROM*
- *Laboratory Testing Services*
- *Turnkey Project Consultancy/Solutions*
- *Entrepreneur India (An Industrial Monthly Journal)*

How are we different ?

- *We have two decades long experience in project consultancy and market research field*
- *We empower our customers with the prerequisite know-how to take sound business decisions*
- *We help catalyze business growth by providing distinctive and profound market analysis*
- *We serve a wide array of customers , from individual entrepreneurs to Corporations and Foreign Investors*
- *We use authentic & reliable sources to ensure business precision*

Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

Who do we serve?

- *Public-sector Companies*
- *Corporates*
- *Government Undertakings*
- *Individual Entrepreneurs*
- *NRI's*
- *Foreign Investors*
- *Non-profit Organizations, NBFC's*
- *Educational Institutions*
- *Embassies & Consulates*
- *Consultancies*
- *Industry / trade associations*

Sectors We Cover

- *Ayurvedic And Herbal Medicines, Herbal Cosmetics*
- *Alcoholic And Non Alcoholic Beverages, Drinks*
- *Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin*
- *Activated Carbon & Activated Charcoal*
- *Aluminium And Aluminium Extrusion Profiles & Sections,*
- *Bio-fertilizers And Biotechnology*
- *Breakfast Snacks And Cereal Food*
- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

Sectors We Cover *Cont...*

- *Bamboo And Cane Based Projects*
- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
- *Chemicals (Organic And Inorganic)*
- *Confectionery, Bakery/Baking And Other Food*
- *Cereal Processing*
- *Coconut And Coconut Based Products*
- *Cold Storage For Fruits & Vegetables*
- *Coal & Coal Byproduct*

Sectors We Cover *Cont...*

- *Copper & Copper Based Projects*
- *Dairy/Milk Processing*
- *Disinfectants, Pesticides, Insecticides, Mosquito Repellents,*
- *Electrical, Electronic And Computer based Projects*
- *Essential Oils, Oils & Fats And Allied*
- *Engineering Goods*
- *Fibre Glass & Float Glass*
- *Fast Moving Consumer Goods*
- *Food, Bakery, Agro Processing*

Sectors We Cover *Cont...*

- *Fruits & Vegetables Processing*
- *Ferro Alloys Based Projects*
- *Fertilizers & Biofertilizers*
- *Ginger & Ginger Based Projects*
- *Herbs And Medicinal Cultivation And Jatropha (Biofuel)*
- *Hotel & Hospitality Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*

Sectors We Cover *Cont...*

- *Infrastructure Projects*
- *Jute & Jute Based Products*
- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*

Sectors We Cover *Cont...*

- *Paints, Pigments, Varnish & Lacquer*
- *Paper And Paper Board, Paper Recycling Projects*
- *Printing Inks*
- *Packaging Based Projects*
- *Perfumes, Cosmetics And Flavours*
- *Power Generation Based Projects & Renewable Energy Based Projects*
- *Pharmaceuticals And Drugs*
- *Plantations, Farming And Cultivations*
- *Plastic Film, Plastic Waste And Plastic Compounds*
- *Plastic, PVC, PET, HDPE, LDPE Etc.*

Sectors We Cover *Cont...*

- *Potato And Potato Based Projects*
- *Printing And Packaging*
- *Real Estate, Leisure And Hospitality*
- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*

Sectors We Cover *Cont...*

- *Township & Residential Complex*
- *Textiles And Readymade Garments*
- *Waste Management & Recycling*
- *Wood & Wood Products*
- *Water Industry(Packaged Drinking Water & Mineral Water)*
- *Wire & Cable*

Niir Project Consultancy Services

106-E, Kamla Nagar, New Delhi-110007, India.

Email: npcs.ei@gmail.com , info@entrepreneurindia.co

Tel: +91-11-23843955, 23845654, 23845886

Mobile: +91-9811043595

Fax: +91-11-23841561

Website : www.entrepreneurindia.co

**Take a look at NIIR PROJECT CONSULTANCY SERVICES on
#StreetView**

<https://goo.gl/VstWkd>



Follow us



➤ <https://www.linkedin.com/company/niir-project-consultancy-services>



➤ <https://www.facebook.com/NIIR.ORG>



➤ <https://www.youtube.com/user/NIIRproject>



➤ <https://plus.google.com/+EntrepreneurIndiaNewDelhi>



➤ https://twitter.com/npcs_in



➤ <https://www.pinterest.com/npcsindia/>





For more information, visit us at:
www.entrepreneurindia.co