



सत्यमेव जयते

GOVERNMENT OF GUJARAT

Establishment of Baker's Yeast Unit

Agro and Food Processing

Government of Gujarat



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The concept

The project envisages setting up of **Baker's Yeast Manufacturing Unit** based on the raw material strength of Gujarat.

The manufacturing unit can focus on production, processing, marketing, export etc.

Baker's yeast overview

- ▶ Baker's yeast is the common name for strains of yeast and is the essential ingredient in several bakery products. It is commonly used as a leavening agent for baking products, where it converts fermentable sugars present in the dough into carbon dioxide and ethanol. In the production of baked goods, yeast is a key ingredient and serves three primary functions:

Development of fermentation flavor:

Imparts the characteristic flavor diffused into the crumb of the baked bread.

Causes dough maturation:

Results in the light, airy physical structure associated with yeast leavened products.

Production of carbon dioxide:

Causes expansion of the dough as it is trapped within the protein matrix of the dough.

Classification of Baker's Yeast

Type	Description	Purpose/ usage
Cream Yeast	Liquid form of the compressed bakers yeast. Solids content typically varies between 15% to 20% and do not contain residual salt and starch. It is not readily available to small bakeries or home cooks.	Used in industrial bakeries with special high-volume dispensing and mixing equipment.
Compressed Yeast	Highly perishable and has been used for decades by veteran bakers and is still popular today. It is more tolerant of low temperatures than other forms of commercial yeast.	Very versatile and performs well in most of the recipes, including use in bread machines.
Active Dry Yeast	Form of yeast most commonly available to non-commercial bakers. It can be stored for several months before it loses potency.	Used in home bakery due to its shelf life.
Instant Yeast	Appears similar to active dry yeast, but has smaller granules with substantially higher percentages of live cells per comparable unit volumes. It is more perishable than active dry.	Also used in home bakery but it can be mixed right into the dough.
Rapid Rise Yeast	A variety of dried yeast that is of smaller granular size, thus it dissolves faster in dough, and it provides greater carbon dioxide output to allow faster rising.	Rapid-rise yeast is often marketed specifically for use in bread machines.
Deactivated Yeast	Dead yeast which has no leavening value and is not interchangeable with other yeast types. It is a powerful reducing agent used to increase the extensibility of a dough.	Typically used for pizza and pan bread dough.

Market Potential and Growth Drivers



Market Potential - India

- ▶ India produces approximately around 85-90,000 tons of yeast per year out of which major share is of baker's yeast. Growth of baker's yeast market is dependent on bakery products market in India.
- ▶ The Indian bakery market, one of the largest food industries, is estimated to be worth INR 119 billion in 2015, expected to grow at a CAGR of 1.9% during 2015-20.

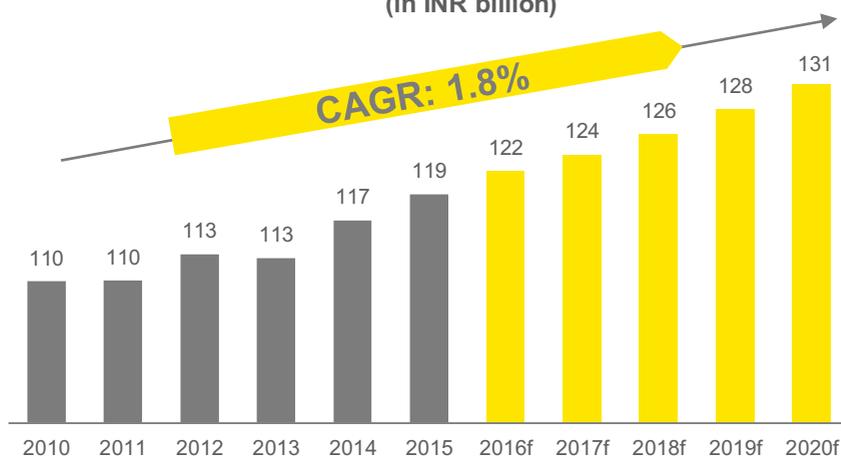
Trade Statistics – Baker's Yeast, 2012-16
(by value, in INR lakhs)

Year	Import	Export
2015-16	2746.9	2.8
2014-15	2181.5	10.1
2013-14	2245.6	74.4
2012-13	1619.5	20.6

(by quantity, in thousand Kgs)

Year	Import	Export
2015-16	1,793.6	1.4
2014-15	1,548.4	2.7
2013-14	1,615.7	15.8
2012-13	1,283.9	7.1

Baked goods market size in India
(in INR billion)



Source: Department of Commerce

Source: Euromonitor

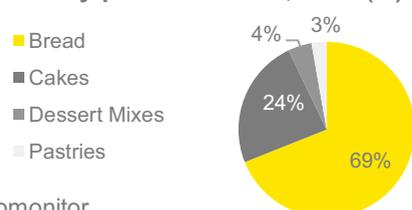
Growth Drivers

Increasing demand of bakery products

Bakery products are gaining popularity in India due to improved standard of living and increasing number of nuclear families and working women particularly in urban and semi urban areas.

- ▶ Bread constitutes about 69% of overall bakery market in India. Bread being one of cheapest and basic instant food available for consumption is increasingly getting consumed as a staple food rather than just a breakfast item.
- ▶ Packaged cakes is expected to register the fastest value growth at a CAGR of 6% during 2015-20 due to the growing preference for eating packaged cakes as snacks, mainly among children.

Bakery products share, 2015 (%)



Source: Euromonitor

Changing consumer preferences

Food consumption habits and pattern of people is changing in India.

- ▶ Consumers are increasingly adapting the gourmet segment. Product offerings like croissants, dinner rolls, sourdoughs, pizza bases, etc. popular in western consumers are now finding strong takers in the Indian market.
- ▶ Consumers have become more health-conscious and look for baked goods which are branded and packaged. Vitamin enriched white sandwich bread, multigrain bread, multi-fibre bread are also fast emerging as some of the preferred products among consumers.
- ▶ Manufacturers are introducing more health and wellness variants of baked goods to cater to the health-conscious consumers. In addition, some manufacturers are also introducing varieties such as doughnuts and croissants which are available either in high-end retail stores or in consumer foodservice.

Gujarat - Competitive Advantage



Availability of raw material

Requirement of raw material molasses (by product of sugar mills) in large quantum can be fulfilled easily by 17 sugar mills in the state. Due to prohibition of alcohol production in Gujarat, the viable alternative for value added use of molasses is in manufacturing baker's yeast.



Favourable consumer demographics

- ▶ Gujarat, with 42.6% of its population residing in the urban areas, is among the top three urbanized states in the country (as per Census 2011).



Ease of Doing Business

- ▶ Only state to comply 100% with Environmental procedures. Gujarat fares highly when it comes to setting up a business, allotment of land and obtaining a construction permit.



Availability of technical man power

Skill development industry in the state is well-developed with many technical institutions (786 ITI's and 52 Skill upgradation centres).



Boost from foreign investment

- ▶ The government is continuously improving infrastructure in Gujarat. As a result, the state has been witnessing significant development, encouraging manufacturers to invest in the state. Gujarat has attracted cumulative FDI worth US\$12 billion from April 2000 to March 2015.
- ▶ Gujarat contributes around 19.1% to India's total exports of goods in 2014-15.



Flourishing Economy

- ▶ Gujarat contributes 7.2% of the Nation GDP and shows leadership in many areas of manufacturing and infrastructure sectors. Gujarat's SDP (State Domestic Product) at current price registered a growth of 11% during the year 2014-15.



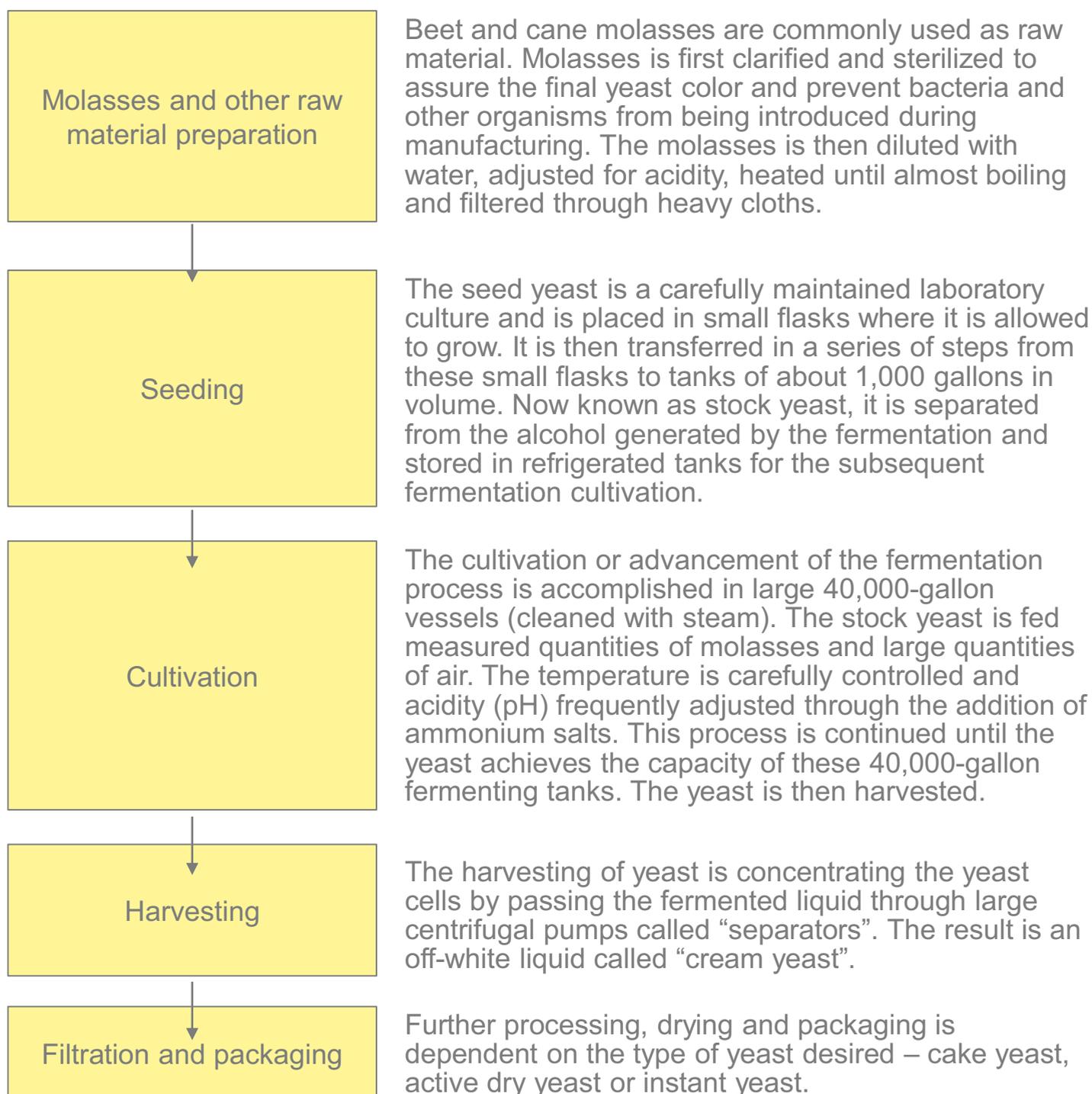
Strategic location and excellent infrastructure

- ▶ Located on the west coast of India, Gujarat is well connected to the major cities of the world by air and sea routes.

Project location

Central and South Gujarat is rich in molasses and is easily available from sugar mills in this area. The market for Baker's yeast is also concentrated in these areas.

Baker's yeast production process



Infrastructure availability

Logistics & connectivity

All the six regions are well-connected with each other in Gujarat as well as other cities in India



Rail

- ▶ The total length of railway lines in the state is 5,188 route km.
- ▶ Three projects, namely Viramgam-Surendranagar-Pipavav; Gandhidham-Palanpur and Mundra-Adipur were been taken up under Private Sector Participation (PSP) mode.



Road

- ▶ The state is well connected with district roads, state highways and national highways.
- ▶ National Highways: NH-8A and State highways ease the transportation.



Air

- ▶ The state has 12 domestic airports and 1 international airport, the highest in any state of India. Ahmedabad is connected with important national and international cities.



Port

- ▶ Gujarat is strategically positioned to service the vast Northern and Central Indian hinterland. The state has 40 minor and intermediate ports, geographically dispersed across the state.

Utilities



Water

- ▶ Gujarat has a state wide “water supply grid” spread across 1,20,769 km that aims to serve 75% of the Gujarat’s population.



Power

- ▶ Gujarat boasts of 24 hours 3- phase uninterrupted power supply.
- ▶ The present generating capacity of 9,827 MW will be doubled to 20,725 MW in next five years to make Gujarat a power surplus state.

Project Information

Raw material

The proposed project will require molasses for growing yeast stock, and this is easily available in Gujarat.

There are 17 Sugar mills operating in Gujarat with an annual production of around 8.7 lakh tonnes of molasses per year. Around 1.9 lakh hectore of the total cultivable land is meant for sugarcane cultivation in the state.

Utilities

Utilities	Est. quantity per day
Water	50 kilo liters
Power	200 horsepower
Coal	12 metric tons

Man power required

Grade	Est. number of people required
Managerial grade	5
Staff in manufacturing section	12
Quality control	3
Purchase and marketing assistants	10
Total	30

Project time line

The proposed project will have cumulative implementation period of 10-12 months of which 5 to 6 months would entail obtaining the obligatory clearances from various authorities.

Project Information



Plant and machinery (required for production of 10 metric tonnes per day finished product)

List of equipment and machinery	Est. quantity
Molasses storage & sterilization tanks	4
Twin lobe air blower /compressors & filters	1
Diesel generating set to run stirrers in fermentation tanks	2
Boiler oil fired	1
Heat exchanger	2
Refrigeration unit for freeze drying of yeast	1
Centrifugal separator	4
Extruder	2
Electricals	As per requirement
Piping, pumps, valves	As per requirement
D.M plant	1
Effluent treatment plant	1
Laboratory equipments	As per requirement

Estimated capacity of the plant

3000 tonnes per annum

Key machinery suppliers

Praj Industries, Ingersol-Rand India, Super Nova Engineering, Thermax, Alfa-Laval Ltd, Frick India Ltd, Campbell Wrapper Machinery, Kirloskar Electric Co. Ltd., Doshi Ion exchange pvt Ltd, , Akar Impex Ltd., Oilex Engineers, Sakova Scientific Co, Proconor, etc.

Key players

Kothari Fermentation and Biochem Ltd.
SAF YEAST CO. PVT. Ltd
AB Mauri India (P) Ltd

Project Financials

Estimated project cost of setting-up a baker's yeast unit for 3000 tonnes per annum capacity is INR ~132 million

Project cost*	
Project components & specifications	Cost (INR million)
Land (Area: 3,500 square meters) Rate: (INR3,000 per sq. mtr. as of May 2016) ¹	10.5
Buildings (plant area, office, godown, lab, service area etc.) ^{2,3} Built-up area: 1,500 sq. mtrs. Average rate: INR4,500 per sq. mtr.	6.7
Plant and machinery	68.3
Misc. Fixed Assets (Furniture and fixtures, office equipment, etc.)	8.0
Preliminary and pre-operative expenses (12%) (Company formation, interest during construction, etc.)	11.2
Contingency (10%)	10.5
Total	115.2
Margin money for working capital	16.6
Total Project cost	131.8

*Note: estimated project cost based on annual inflation adjusted figures of 2008.



Approvals & Incentives



The Gujarat Government defines Agro industries in its Agro industrial policy as units which add value to agriculture products/residues, both food and non-food, by processing into products which are marketable or usable or edible or by improving storability or by providing the link from farm to the market or part thereof. Agro industry also includes Hi-Tech and Bio-technology based agriculture.

Approvals required to set up an agro industry*

Government permissions	Concerned Department
Permission for starting the agro industrial project	Industries Commisionerate, (offices in each district)
Approval of Factory Lay out	Town Planning Department \ Village Panchayat
NOC on Pollution Control	State Pollution Control Board
ISI Certification	Bureau of Indian Standards
Sales tax number from the State	Department of Sales Tax, (Government of Gujarat)
CST no from the Central Government	Department of Sales Tax, (Government of Gujarat)
Professional tax no	Department of Sales Tax, (Government of Gujarat)
License under Shop and Establishment Act	Municipal Corporation
Registration under PFA Act	Food and Drug Controllers Office
Boiler Inspection and verification of smoke Nuisance	Steam Boiler and Smoke Nuisance Department
Income tax no	Income Tax Department
Electricity Connection & sanction load	GEB
Inspection & approval of electrical installations	Chief Electrical Inspector, Commissioner of Electricity Duty
Inspection and passing of heavy vehicles \ reefer vans, mobile pre-cooling units	RTO Office
Inspection of Weights, measures and packaging	Controller of Legal Metrology Department
Number, inspection and collection of excise duty	Department of Central Excise
Inspection of labs using sprits and alcohol in an industrial unit	Prohibition and Excise Department
Registration under Provident fund	Employees Provident fund Organization

* All the permissions are not required from the day one but as the unit becomes operational, most of the above mentioned major permissions have to be obtained.

Approvals

- ▶ The proposed unit will have to register itself with Secretariat of Industrial Approvals (SIA), Ministry of Industries and Government of India, by filing Industrial Entrepreneur's Memorandum (IEM), if it has plant and machinery investment of more than INR10 million.
- ▶ The proposed unit being an Export Oriented Unit (EOU) and catering the major market of advance countries like Japan, Egypt, USA, South Korea & Netherlands, the unit will require to get approved their products with Food and Drugs Administration (FDA) in these countries, apart from registration with Indian and state food administration departments.
- ▶ The most critical aspect of this product will be its quality for export consumers and Codex standards of respective countries will be followed by the unit. Being an EOU the unit will have to follow strict quality standards as accepted in the countries where export is to be done. It is obligatory to meet provisions under the PFA act for all ingredients and quality aspects for marketing product in Indian market.
- ▶ The unit will get EOU registration from RBI, DGFT and with IOPEA / APEDA as registered manufacturer exporter to avail export incentives.

Additional approval for export to EU Countries, w.e.f. February 2016

- ▶ The proposed unit will have to obtain a 'Certificate of Export' (COE) and a "Stuffing certificate" for outbound shipments of sesame seeds to the European Union countries. This regulation has come into practice since February 2016.
- ▶ Indian Oilseeds & Produce Export Promotion Council (IOPEPC) is designated as competent authority to issue export certification.
- ▶ The unit will be responsible to take all measures to ensure the absence of Salmonella (an organism, which can cause serious and sometimes fatal infections) in the sesame seeds intended for export.
- ▶ SGS India Pvt. Ltd. is the only registered laboratory for export of sesame seed to the EU in Gujarat. Rest are in Maharashtra, Haryana, Chennai and Bangalore.

Registration number: IOPEPC/SSL_EU/005

Address: 201, SUMEL II, NR. Gurudwara, Thaltej Circle, Sarkhej- Gandhinagar Highway, Ahmedabad-380 054

Incentives from Government of Gujarat

Comprehensive Agro Business Policy – 2016 - 2021

Assistance of Capital Investment Subsidy:

Capital Investment Subsidy of 25% of eligible project cost subject to maximum of INR 0.5 million for setting up/ expansion and diversification/modernization of agro and food processing units.



Assistance for back ended interest subsidy on term loan:

- Back ended interest subsidy at 7.5% on the term loan with maximum amount of INR 1.5 million for a period of 5 years for setting up/ expansion and diversification/modernization of agro and food processing units.

Additional back ended interest subsidy on term loan:

- 1% additional interest subsidy to SC/ST, physically challenged or women entrepreneurs.
- 1% additional interest subsidy to entrepreneurs below 35 years age.



Quality certification mark:

MSME agro units are required to obtain quality certification mark for export purposes. For this 50% (maximum of INR 0.5 million) assistance of expenditure incurred will be granted for obtaining certification mark from institute approved by Quality Council of India.



Skill enhancement:

Provides assistance at the rate of 50% of fee paid, subject to maximum of INR 10 thousand per employee on obtaining industry recognized skill certifications from recognized institutions.



Incentive on power tariff and electric duty:

Provides power tariff subsidy at the rate of INR one per unit in the billed amount of the utility as promotional incentive on reimbursement basis for a period of five years with effect from the commencement of commercial production/ rendering services.

Gujarat State Federation of Co-operative Sugar Factories Limited

<http://gujsugarfed.com/index.html>

Gujarat Industrial & Technical Consultancy Organisation

<http://www.gitco.co.in/>

Central Food Technological Research Institute

<http://www.cftri.com/index.php>

Agriculture and Co-operation Department

www.agri.gujarat.gov.in/index.htm

Gujarat Industrial Development Corporation

www.gidc.gov.in/

Industries Commissionerate

www.ic.gujarat.gov.in

This project profile is based on preliminary study to facilitate prospective entrepreneurs to assess a prima facie scope. It is, however, advisable to get a detailed feasibility study prepared before taking a final investment decision.

For further details:

iNDEXTb
INDUSTRIAL EXTENSION BUREAU
(A GOVT. OF GUJARAT ORGANISATION)
ISO 9001 : 2015 Certified

- Block No. 18, 2nd Floor, Udyog Bhavan, GH-4, Sector 11, Gandhinagar - 382 010 Gujarat, INDIA
- +91-79-23256009, 23250492 / 93
- +91-79-23250490
- indextb@indextb.com
- www.indextb.com



Gujarat Agro Industries Corporation

A Government Enterprise

Gujarat Agro Industries Corporation Limited
Gujarat State Civil Supplies Corporation Ltd Building
2nd Floor , "B" Wing , Sector 10A,
Gandhinagar – 382010, Gujarat, India
Phone / Fax : 079-23240208
Email: md-gaic@gujagro.org
<https://gaic.gujarat.gov.in/>