



A PROJECT REPORT ON



Jaggery Powder Manufacturing plant

By:-Chervil Agritech Pvt. Ltd.



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1. Company Introduction

Chervil Agritech is a Vadodara (Gujrat) based company. The company is moving towards manufacturing of sulphur less Jaggery powder with the modern techniques and equipment. Chervil Agritech in future also looking forward for tissue culture lab for growing best quality of sugarcane for production of jaggery powder. Company has high vision and goals to achieve success in the competitive market

2. VISION

Chervil Agritech Pvt. Ltd. visualize to be one of the foremost Sugar Cane based product manufacturers from India .Chervil Agritech Pvt. Ltd. would be one of largest manufacturer, exporter and retailer of Jaggery Powder in next 2 years.

3. MISSION

To develop and consolidate as one of the largest manufacturer of High Quality "Jaggery Powder " ,A product with its unique positioning as alternative substitute to "Sugar".

4. Values

We offer good quality Organic Jaggery Powder that is used for adding sweet taste and natural flavour to and can be added to variety of recipes and dishes.

Chervil Agritech Jaggery Powder! A product with Unique Value

- Fine particle size
- Free from impurities
- No artificial colouring or taste
- Conventionally packed in hygienic packs



Benefits

- Rich in mineral salts
- Easy to digest
- Develops unique taste as sweetener
- Treats throat and lung infections
- Easily dissolved and balances the deficiency of sugar level
- Sulphurless Organic Composition, a best to suite as preferred health alternative.

5. Executive summary

Jaggery manufacturing unit is established at zanzad village in Vadodara district. A unique project in terms of manufacturing sulphur less jaggery powder with the modern technique. CHERVIL Agritech Pvt. Ltd .certificate of incorporation was done 24 June 2010. The plant capacity is 1000 t.c.d.. The chervil Agritech has signed mou with M.M.Technochems, technical consultant for the whole project.

6. Promoters:

Chervil Agritech is been promoted by the vision of Mr.R.K.Sheth and Mr.Uday Shah

Mr.R.K.Sheth

With a vision to initiate, implement, and drive new functional work processes, and to develop and mentor landmark projects in the region of Vadodara, Gujarat, India, Mr. Rajiv Sheth envisaged the idea of Chervil Jaggery powder plant.

With more than twenty years of impressive, professional entrepreneurial experience, he holds various key business leader portfolios with his peer business groups. He looks forward to be build new age Conglomerate " The Chervil Group".



Mr. Rajiv Sheth holds various key management positions for following companies.

Chervil Group	Chief Mentor
Chervil Agritech Pvt. Ltd	Chairman
Nipiam InfoTech Pvt. Ltd	Managing Director
Yogeshwar Infrastructure Pvt. Ltd	Managing Director
Sun Agritech Pvt. Ltd	Director
Ganesh Developers	Partner
Radhe Developers	Partner
Manan Developers	Partner
Shreeji Developers	Partner
Pushpak Developers	Partner

Mr.Uday Shah

Mr.Uday Shah with his young and fresh Ideas driving Chervil Jaggery Powder Plant to achieve success .
He has a experience of 6years in M/s. Amiyodaya Petrochem Products Pvt. Ltd.as a director.

7. Existing Status of the Unit:

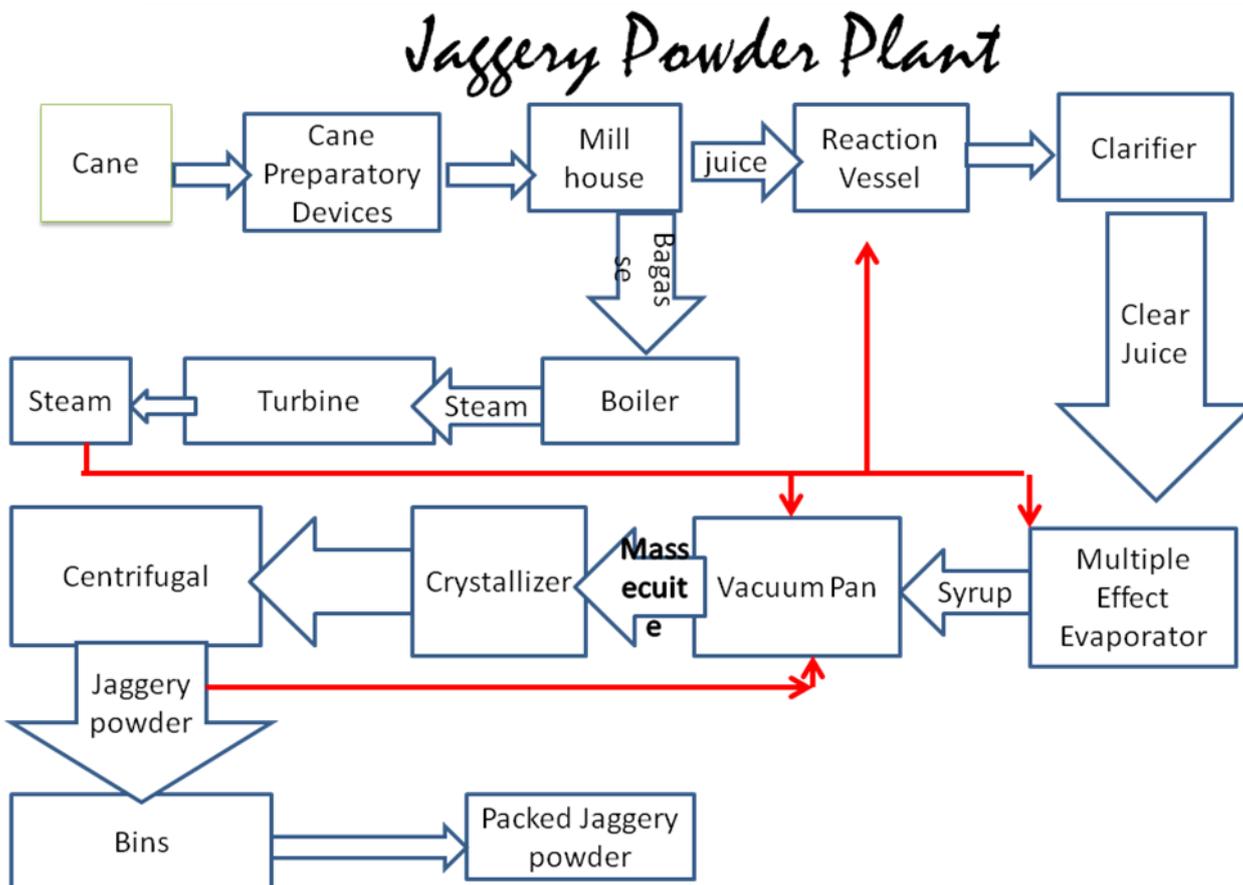
The jaggery manufacturing plant has a capacity of 750.t.c.d. .The manufacturing of the jaggery powder will start from November2010. And the manufacturing unit has very good quality of new regeneration equipment

8. Product line proposed:

For the first year chervil Agritech is focusing on only jaggery powder, solid jaggery and from the coming years chervil will be going for other jaggery product such as invert syrup, candy sugar .

Description:-

Process flow chart for jaggery powder is shown in the below diagram



SPECIFICATIONS

Jaggery Powder



Jaggery Powder is 100% natural that is extracted from sugar cane. High nutritional value and freshness are the chief characteristics of jaggery powder manufactured by us. In addition to this, we provide availability of Jaggery Powder in different packing and quantities as per preferences of customers and their specific usage.

Jaggery Powder composition:

	Parameters		Jaggery (Gur)	
			Per 4g (1tsp)	Per 100g
1	Total Calories	(KCal)	12.32	308.0
		(KJ)	51.8	1293.0
2	Protein (g)		Trace	Trace
3	Carbohydrate (g)		3.08	77.0
4	Fat (g)		Trace	Trace
5	Sodium (mg)		Trace	Trace
6	Total Sugars (g)		3.08	77.0
7	Dietary Fibre (g)		----	----
8	Vitamins (I.U)		>32.0	>800.0
9	Minerals (mg)		>80.0	> 2000.0
10	Transfat (g)		----	----
	*approximate values; as figures vary batch to batch and campaign to campaign			

Why Chervil Jaggery Powder?



		Conventional Plant			Our Plant	
1	In conventional manufacturing	Jaggery sodium		No any use of hydro sulphite		
	Jaggery powder	50% Sucrose	20% Sugars	Invert	20% Moisture	10% (Ash, Proteins, Bagasse Fibres)
		limits (35 g hydros/1000 litre Juice) for clarification of cane juice to impart light golden yellow colour to jaggery.				
2	Often level of SO ₂ in jaggery powder exceeds beyond 50 ppm which is not suitable for human consumption (Bureau of Indian Standard I.S.12923, 1990).				No traces of SO ₂ in final product	
3	Fuel consumption is high as firing required at various points				Low fuel consumption as heating at various stages of juice is through steam only and vacuum boiling makes it energy efficient.	
4	This is open boiling process which makes it un hygienic				No human touch makes it hygienic	

Jaggery: A Healthy Choice



Jaggery is best alternative of sugar as it differs in various areas such as

	Jaggery Powder	Sugar
1	Colour of jaggery powder can range from golden yellow to golden brown dark brown like dark chocolate. The colour is often dependent on base ingredient used to make jaggery powder	Sugar is bright white color
2	Jaggery powder is softer than sugar and also amorphous. This is because vitamins proteins and in gradient of cane are not removed	Sugar crystals are solid and hard
3	Jaggery powder is made up of predominantly sucrose mineral salts iron. Hence consumption of jaggery is recommended in case of iron deficiency anaemia.	Sugar is made only of sucrose.
	Jaggery powder is made up of longer chains of sucrose therefore it is digested slowly and energy release is also slow. Hence energy is provided for a longer period of time and it not harmful for the body.	Sugar is simplest form of sucrose hence it is instantly absorbed in the blood and burst of energy is released. Hence it is not recommended for people with diabetes.



Jaggery powder medicinal benefits

Jaggery: A Healthy Choice

Although not firmly associated with disease, the greatest potential threat of white sugar stems from the processing it undergoes. Initially, the sugarcane plants are washed, shredded, crushed, and rolled to extract the cane juice. Nothing particularly bad happening here so far. In fact, the fibrous residual is often recycled as fuel for the mill furnaces. However, the cane juice is then "clarified" by the addition of lime. After evaporation and centrifugation, it is then further refined through the addition of sulphur dioxide, phosphoric acid, and decolorizers. These processes remove all the phytonutrients, including the vitamins and minerals, and leave only the empty calories behind for us to put in our tea, coffee, and recipes.

Both Jaggery and Sugar are predominantly made up of sucrose. But, there are some differences. Sugar: Only sucrose (C₁₂H₂₂O₁₂).

Jaggery: Predominantly sucrose (C₁₂H₂₂O₁₂), with traces of mineral salts, iron and some fibre

Jaggery, also known as *gur*, has a mineral content of approximately 60 times that of refined white sugar. One teaspoon of jaggery contains approximately 4-5 mg calcium, 2-3 mg phosphorus, 8 mg magnesium, 48 mg potassium, 0.5 mg iron, as well as trace amounts of zinc, copper, thiamin, riboflavin, and niacin.

Jaggery is far more complex than sugar, as it is made up of longer chains of sucrose. Hence, it is digested slower than sugar and releases energy slowly and not spontaneously. This provides energy for a longer time and is not harmful for the body. But this does not certify it fit for consumption by diabetics, because ultimately it is sugar. Jaggery also gathers a considerable amount of ferrous salts (**iron**) during its preparation, as it is prepared in **iron** vessels. This iron is also good for health, particularly for those who are anaemic or lack iron. Again, jaggery also contains traces of mineral salts (you might have experienced this, that jaggery leaves a hint of salt on tongue) which are very beneficial for the body. These salts come from the sugar cane juice where it is absorbed from the soil. Furthermore, jaggery is very good as a cleansing agent. It cleans lungs, stomach, intestines, oesophagus and respiratory tracts. Those who face dust in their day to day life are highly recommended to take a daily dose of jaggery. This can keep them safe from **asthma**, cough & cold, congestion in chest etc



Comparison chart of nutritive value of Jaggery, Khandsari and sugar per 100gm				
Particulars	Jaggery Powder	Khandsari		Sugar
		Sulphur process	Non-sulphur process	
Sucrose	65-85	97.5	96	99.5
Reducing sugars	10-15			
Proteins(g)	0.4			
Fats	0.1			
Total minerals	0.6-0.10	0.05	0.2	0.05
Calcium	8	100	100	
Phosphorous	4			
Iron	11			
Moisture	3-10	0.03	0.5	0.2-0.4
Energy	383	395	388	398

Figure 1

Names of Jaggery

Latin America and the Caribbean

Raspadura in Cuba

Rapadou in Haiti

Rapadura in Brazil

Tapa de dulce in Costa Rica

Papelón in Venezuela

Panela and piloncillo in the rest of Latin America

Southeast Asia

Gula Melaka in Malay

Gur in Hindi

Htanyet in Burmese

Panocha or Panutsa in the Philippines

Elsewhere

Sukari Nguuru in Swahili

al-Ḥrfyh in Arabic