



Book on Manufacture of Pan Masala, Tobacco and Tobacco Products

*(Tobacco Cultivation, Chewing Tobacco, Cigarettes, Bidi, Cigars,
Khaini, Zarda, Gutka, Katha, Mouth Freshner, Pan Chatni,
Kimam, Sweet Supari, Nicotine Sulphate, USP Nicotine, Nicotine
Tartarate, Nicotine, Polacrilex Resin)*

Introduction

Tobacco is an agricultural crop, most commonly used to make cigarettes. It is grown all over the world and supports a billion-dollar industry. The psychoactive ingredient is nicotine, a stimulant, but more than 4,000 other chemicals (2,000 of which are known to be poisonous) are present in cigarettes.



Tobacco can be processed, dried, rolled, and smoked as:

- **Cigarettes**
- **Cigars**
- **Bidis (thin, hand-rolled cigarettes imported from Southeast Asia)**
- **Clove cigarettes**
- **Kreteks (cigarettes imported from Indonesia that contain cloves and other additives).**

Products such as cigarettes, cigars, pipe tobacco, chewing tobacco, and wet and dry snuff contain dried leaves from the tobacco plant.



The main chemical in tobacco is nicotine, which is a stimulant drug that speeds up the messages travelling between the brain and body. It may be more addictive than heroin. Tar and carbon monoxide (a toxic gas) are also released when tobacco is burned, such as when it's smoked.

People can smoke, chew, or sniff tobacco. Smoked tobacco products include cigarettes, cigars, bidis, and kreteks. Some people also smoke loose tobacco in a pipe or hookah (water pipe). Chewed tobacco products include chewing tobacco, snuff, dip, and snus; snuff can also be sniffed.

Tobacco



Chewing Tobacco

Chewing tobacco is sometimes known as chewing tobacco or spitting tobacco. It is available in two forms, snuff and chewing tobacco. Both types of chewing tobacco are held in the mouth inside the cheek or between the cheek and gum. Snuff and chewing tobacco are commonly available in tins or pouches; popular brand names include Skoal and Copenhagen. Snus (pronounced like "snoose") is a finely ground form of snuff that originated in Norway and Sweden that comes in small tins. The amount of snuff placed in the mouth is referred to as a pinch, dip, lipper, or quid. A portion of chewing tobacco is referred to as a plug, wad, or chew.



Chewing tobacco is a common type of smokeless tobacco. Smokeless tobacco products consist of tobacco or a tobacco blend that's chewed, sucked on or sniffed, rather than smoked. Nicotine is absorbed through the soft tissues of the mouth and in some cases swallowed.

Pan Masala

Pan Masala (PM) is a mixture of areca nut with slaked lime, catechu and other flavoring agents. It is widely available and used by all the sections of the Indian society. Lime, areca nut, clove, cardamom, mint, tobacco and many other ingredients. It is prepared with precise measurements so as to maintain a balance of all ingredients while keeping in mind its taste and human health.

Pan Masala acts as a mouth freshener and unlike other Western synthetic pan masala which are made with chemical and petroleum ingredients, the Indian pan masala is considered safer. It is available in hygienic and attractive foil packets (sachets) and tins which are easy to store and carry.

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Cigarettes

Cigarettes are a small roll of porous paper containing a rod of chopped up tobacco leaf. Cigarettes are designed so that the tobacco can be smoked, by lighting the cigarette and breathing in the smoke. At the mouth end of the cigarette there is a second layer of porous paper (called tipping paper) and a filter. The tipping paper is designed to allow fresh air to infiltrate when the smoker inhales. This fresh air reduces the harshness of the smoke. The filter cools the smoke and reduces the flow of smoke out of the cigarette. Cigarettes also contain additives such as sugars and flavourings which are used to increase shelf life, control the rate at which the cigarette burns and control the delivery of the chemicals.

Bidi

Bidis are small hand-rolled cigarettes 7-8 times more common in India than conventional cigarettes. When compared to conventional cigarettes, "bidis produce equal or higher levels of nicotine, tar, and other toxic chemicals." Their consumption and market penetration is spreading far beyond the national borders of India.

Cigar

A cigar is defined as a roll of tobacco wrapped in leaf tobacco or in a substance that contains tobacco. Cigars differ from cigarettes in that cigarettes are a roll of tobacco wrapped in paper or in a substance that does not contain tobacco. Most cigars are composed primarily of a single type of tobacco (air-cured and fermented), and they have a tobacco wrapper. They can vary in size and shape and contain between 1 gram and 20 grams of tobacco.

Khaini

Khaini is a form of chewing tobacco used in India, containing slaked lime.

Zarda

Zarda – a moist or dry chewing tobacco mixed with a variety of colourings, spice essences, and perfumes. Zarda is prepared by cutting tobacco leaves into small pieces and boiling them in water with slaked lime and spices until the water evaporates. It is then dried, and colouring and flavouring agents are added. Zarda may be chewed by itself, with areca nut or in betel quid quid. It is available in small packets or tins. In India it is used in two forms pilapatti and kalipatti.

Gutka

Gutka in India is one example. It is a generic name for a product that contains tobacco, areca nut, and several other substances in powdered or granulated form and is sold in small aluminum foil sachets. The only known use of this product is that it is put in the mouth and then chewed and sucked.

A type of smokeless tobacco that is made in India and is widely used throughout Asia. It is a mixture of tobacco, crushed areca nut (also called betel nut), spices, and other ingredients. It is used like chewing tobacco and is placed in the mouth, usually between the gum and cheek. Gutka contains nicotine and many harmful, cancer-causing chemicals. Using it can lead to nicotine addiction and can cause cancers of the lip, mouth, tongue, throat, and esophagus. Also called betel quid with tobacco.

Katha

Kattha and cutch are extracted from wood of Khair tree. These trees with their botanical name as Acacia are found in abundance in the forests of Uttar Pradesh, Bihar, Rajasthan, Gujarat, Himachal Pradesh and Nepal. There are different varieties of this tree such as Acacia Sundra, Acacia Catechuoides and Acacia Catechu. Manufacture of Kattha is an important forest based industry. Kattha is widely consumed as an applicant in paan, it also has medicinal qualities. While cutch a bye product during kattha manufacturing is used in tanning industry, as an additive and preservative in many industries.



Kattha (Catechu) is one of the principal ingredients used in the preparation of PAAN from betel leaves, for chewing purposes when, in combination with lime, it gives the characteristic red colouration. With the advent of readymade paan (i.e., paan-masala) and gutkha (paan-masala with tobacco) and its ever-growing popularity among masses, the usage of kattha have increased many folds.

Kimam

'Kimam' or 'Qiwam' as it is said is a liquid tobacco mixture consumed with 'Paan'. Kimam (Qiwam) is made after adding tobacco with a lot of spices and some imported essences. Only experts can make it and there are only a few in India who know to make it. It is for taste and its smell is quite strong.

Kimam is a thick tobacco paste, it is also available as granules or pellets. To prepare kimam, the midribs and veins of tobacco leaves are removed, and the remaining matter is boiled in water. Powdered spices (saffron, cardamom, aniseed and musk) are added, and the mixture is stirred and allowed to macerate until it becomes a paste, from which granules and pellets are made. It is used in India, Bangladesh and Nepal.



Sweet Supari

Supari or betel nut is the primary crop of the Malnad region in Karnataka. It is the seed of a type of palm tree. The nut is harvested and processed to get sweet supari, which is used as a mouth-freshener by youngsters and elders. Sweet supari is got by sweetening processed betel nut with sugar, artificial flavours and colours. Once processed this way, it gets a sweet taste and cooling mouth-feel, which make it effective as a mouth-freshener.

Nicotine

Nicotine is a chemical compound that is present in tobacco. When tobacco is smoked, nicotine is absorbed through the wall lining of the small air sacs in the lungs. When sniffed or chewed, it is absorbed through the mucous membranes of the nose or mouth. Nicotine can also be absorbed through the skin.

Market Outlook

Chewing tobacco has been a tradition in India for centuries. Tobacco is a leading commercial crop valued for its leaf containing several important phyto-chemicals including nicotine. A large proportion of Indian economy is agro based in which Tobacco is one of the principal cash crops. The tobacco production and its allied products' sales in the country have played a prominent role in the development of nation's economy. India is the ~ largest tobacco market in the world in terms of tobacco consumption. The smokeless tobacco has historically been served as a tradition in India for many decades. Presently, the smokeless tobacco is the largest tobacco product category in India.



On account of the fact the majority of the Indian tobacco consuming population consumes beedis, snuff and smokeless tobacco, including gutka, khaini and zarda, the tobacco market is majorly held by chewing and beedi tobacco products. Unlike other countries such as the US, UK and others where the production of cigarettes accounted for more than ~% of total production of tobacco related products, in India, the tobacco market is majorly controlled by the production of snuffs, guthka and others.



Of the total amount of tobacco produced in the country, around 48% is in the form of chewing tobacco, 38% as bidis, and only 14% as cigarettes. Thus, bidis, snuff and chewing tobacco (such as gutka, khaini and zarda) form the bulk (86%) of India's total tobacco production. In the rest of the world, production of cigarettes is 90% of total production of tobacco related products. The per capita consumption of cigarettes in India is merely a tenth of the world average.

The tobacco market in India is expected to grow at a CAGR of 6.3% over FY 2016 to FY 2020. India, being the second largest producer and third largest exporter of tobacco in the world, benefits significantly from the tobacco market in terms of revenue and employment.

A large portion of the Indian economy depends on agriculture, and tobacco is the principal cash crop across many states. The tobacco demand and consumption is very high in India, which will continue to be the key driver of growth in the market. This will be followed by demand from countries outside of India. Legal cigarettes contribute to the majority of the tax revenue compared to other tobacco products.

Tobacco industry's contribution to the nation's GDP amounted to 1.1% representing about 7% of the total for the manufacturing sector. Tobacco, being a labor intensive crop, provides employment to more than 60 lakh people who are engaged in the farming, in this backdrop.



Increasing regulations in the tobacco industry through taxation and bans on advertising have led to a decline in the sales volume of tobacco products in India. This has been done to curb the health risks associated with tobacco consumption. India bans smoking of cigarettes and bidis in public places, while large pictorial warnings cover 85% of the front and back of all cigarette packs. These are some of the measures taken to discourage the Indian population from consuming tobacco products in the country.

Tobacco and tobacco products generate around US\$ 3.1 billion in revenues to the national exchequer by way of excise duty, and around US\$ 768.69million by way of foreign exchange every year.

Indian tobacco is exported to about 100 countries. India exports unmanufactured tobacco primarily to Western Europe, South and Southeast Asia, East Europe and Africa. Western Europe is the key market for Indian tobacco exports.

The tobacco market is expected to witness growth, with a range of tobacco products such as cigarettes, cigars, kreteks, dissolvable tobacco, pipe, hookah-cigarettes etc. Presently, the drivers to this market are increase in consumer disposable income, improved new product development and innovation, and availability of premium products.

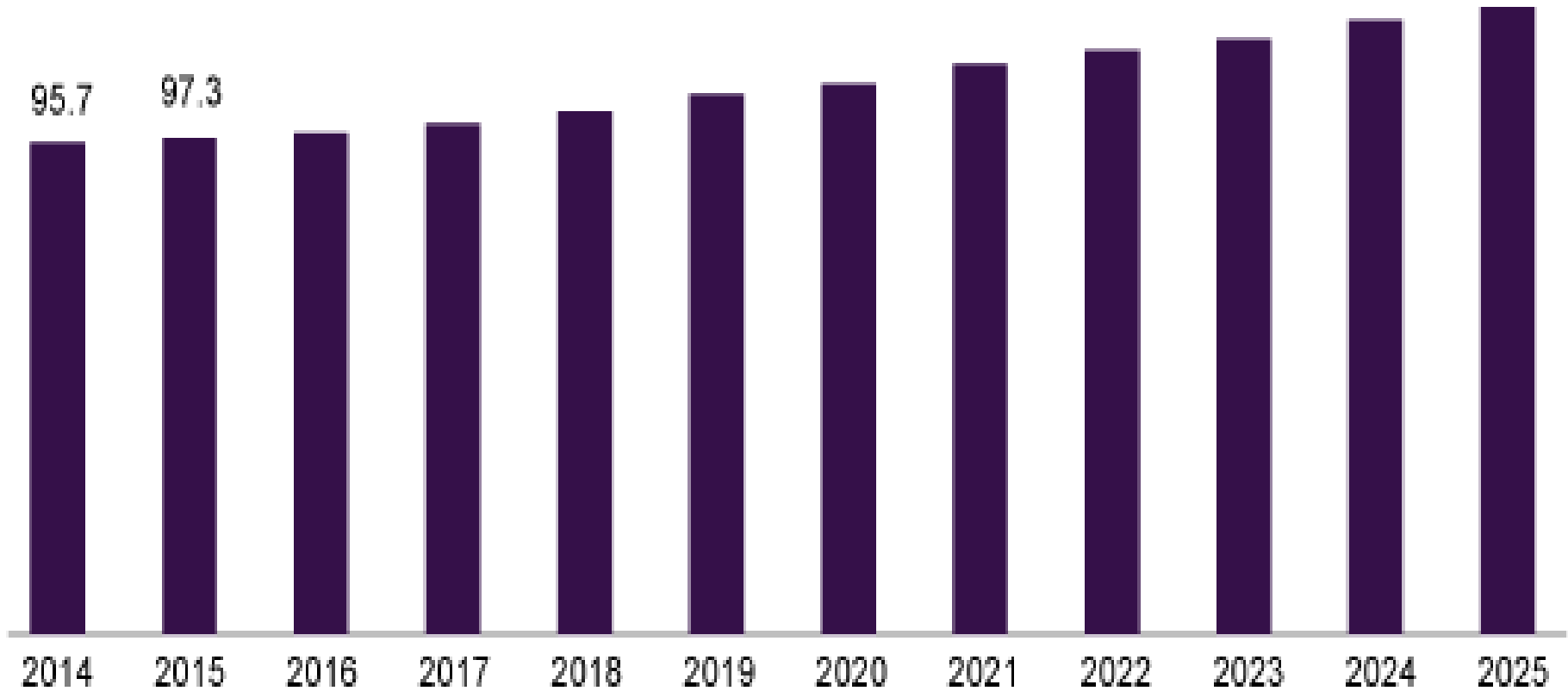


Global Tobacco Industry

The global tobacco industry produced approximately 7.44 million metric tons in 2013. The leading producer is China, which harvested some 3.15 million metric tons of tobacco in the same year. Other major producers were Brazil and India. The leading tobacco company worldwide was the Imperial Tobacco Group, generating some 39.1 billion U.S. dollars of revenue in 2016.

The U.S. tobacco market size was USD 100.3 billion in 2016 and is expected to grow further over the forecast period. Increasing consumer disposable income and the availability of superior products such as customized e-cigarettes and pipes are driving the market growth. Additionally, increasing consumption of tobacco products by the youth and female population has further elevated the demand for these products.

U.S. Tobacco Market Size, 2014-2025 (USD Billion)



The global tobacco market is struggling due to ongoing restraints put by governments around the world on grounds of health issues, resulting in high taxes and unfavorable regulations. Tobacco manufacturing companies cannot market their products and are obligatory to issue health warnings on product packaging.

Rising health awareness, stricter government regulations on tobacco products, and increasing popularity of substitutes are adversely affecting market growth. Moreover, with tobacco manufacturers increasing the per unit price of cigarettes and other tobacco products due to increased tax, consumers are shifting preference to value-for-money products. This will also take its toll on industry growth.

The market has been segmented on the basis of product type which includes cigarettes, roll-your-own, cigars, cigarillos, smokeless tobacco, etc. The market is also segmented on a regional basis. Some of the major markets for tobacco include China, India, Brazil, United States and European Union. Amongst these, China represents the largest producer as well as the biggest consumer of tobacco, accounting for the majority of share. An analysis of the competitive landscape provides the details of the key player's operative in the market.



Smokeless and Chewing Tobacco

The numerous health issues caused by the intake of nicotine has led governments across the world to impose restrictions on cigarettes, which has resulted in an increased demand for alternatives. Low cost and easy availability of smokeless tobacco products are driving sales. Additionally, claims of being less harmful than cigarettes by major brands there is driving the growth of the global smokeless tobacco market.

The global smokeless tobacco market is expected to register a CAGR of 4.7% during the forecast period, 2018 to 2023.

The global smokeless tobacco industry is projected to grow at the significant growth rate in the near future owing to increasing consumption of chewing tobacco in developing economies. Key players are shifting their focus from cigarette to the smokeless tobacco products due to growing demand. For instance, Altria is concentrating its highest-potential projects under longtime smokeless product category and also restructuring, forms two separate divisions to focus on core tobacco & innovative smokeless tobacco products.

Growing acceptance of smokeless tobacco as an alternative for cigarette is driving the market growth. Convenience in consumption of tobacco chewing bags is one of the major reason consumers are preferring smokeless tobacco products over cigarette.

The global smokeless tobacco market is segmented into North America, Europe, Asia Pacific, and Rest of the World. Among these, Asia Pacific region is dominating the market over the forecast period. Asia Pacific region is projected to expand at a CAGR of 4.55% during the review period. This is attributed to high consumption of smokeless tobacco in this region.

Chewing tobacco is a type of tobacco derived product that placed between the cheek and gum. It usually packaged either as loose tobacco leaves, leaves compressed into a small, brick-like shape called a plug, or braids of leaves called a twist.



Chewing tobacco holds significant market share due to easy availability and lower cost as compared to cigarettes. Growing demand of chewing tobacco, majorly among the low-income community of consumers is also influencing the market growth. Popularity of consumption of smokeless tobacco among the daily wage workers, is projected to be high due to the low cost and high production capacity of tobacco in the developing country. Point of sales for chewing tobacco from wholesale shops and teashops were identified to be abundant in Asia-Pacific region. Increasing attention of youth population though customer-oriented tobacco packaging including stickers, posters at the point of sales is likely to impact the market growth for smokeless tobacco.

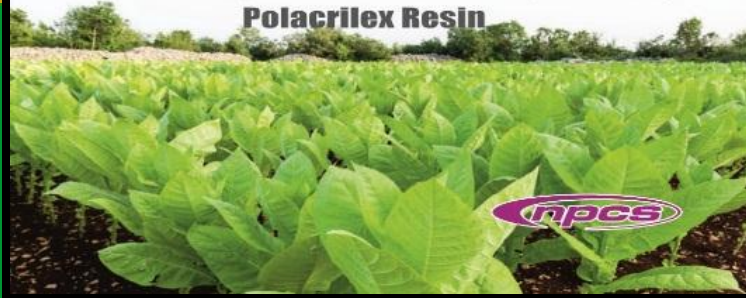
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About the Book:

Author:	NPCS Board of Food Technologists
Format:	Paperback
ISBN:	9789381039915
Code:	NI317
Pages:	448
Indian Price:	Rs. 1,975/-
US\$:	200-
Published:	2019
Publisher:	Niir Project Consultancy Services

Tobacco comes from a leafy plant that tends to grow in warm tropical areas. It is famously grown all over the Caribbean, where the warm, sunny conditions make for a perfect growing climate. Tobacco is usually smoked as a nicotinic stimulant and is mostly processed, rolled and dried before being smoked. Different geographies produce different types of the plant. The taste and flavor of the leaves are the characteristic trademarks of different types. The process of curing also determines the type of tobacco.

Tobacco products include cigarettes, cigars, loose pipe tobacco, chewing tobacco, and snuff. These products contain the dried, processed leaves of the tobacco plant *nicotiana rustica* or *nicotiana tabacum*. All tobacco contains nicotine, an addictive drug. Today's tobacco also contains thousands of other chemicals designed to make the products more user-friendly and addictive.

Nicotine is a nitrogen-based compound which dissolves in organic compounds. Tobacco leaves contain plenty of nicotine which evaporates on burning. This nitrogen-based compound is addictive in low amounts and toxic in high doses. Nicotine Sulfate is a potent pesticide, known for its high toxicity.

A large proportion of Indian economy is agro based in which Tobacco is one of the principal cash crops. The tobacco production and its allied products' sales in the country have played a prominent role in the development of nation's economy. India is the largest tobacco market in the world in terms of tobacco consumption. The smokeless tobacco has historically been served as a tradition in India for many decades.

Tobacco Waste or dust is generated at various stages of post-harvest processing of tobacco and also while manufacturing various tobacco products mainly during manufacture of tobacco products like cigarette and Beedi. The types of wastes generated during pre and post-harvest practice of tobacco include suckers, stems, mid ribs, leaf waste and dust.

The main contents of the book are Tobacco Cultivation, Tobacco Diseases and Pests, Organic Tobacco Production, Chewing Tobacco, Cigarettes, Bidi, Cigars, Readymade Khaini, Chewing Tobacco (Khaini), Zarda, Gutka, Katha, Mouth Fresheners, Pan Chutney, Pan Masala, Kimam, Tobacco of Various Grade, Sweet Supari, Nicotine Sulphate, USP Nicotine, Nicotine Tartarate, Nicotine Polacrilex Resin, Smokeless Tobacco (SLT), Hookah, Tobacco Products Manufacturing Processes,

-Liquid (Main Chemicals, Compounds, Components), Additives in Tobacco Products, Additives Products, Packaging & Labeling (Design Trends & Technologies), Plastics in Food Packaging, Packaging Laws and Regulations and Photographs of Machinery with Supplier's Contact Details.

This book will be a mile stone for its readers who are new to this sector, will also find useful for professionals, entrepreneurs, those studying and researching in this important area.

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Composition

Main Components

Main Chemicals, Compounds, Components

Propylene (PG)

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Nicotine

Chemistry's Role

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27. ADDITIVES IN TOBACCO PRODUCTS

Reasons for Adding Additives to Cigarettes

GRAS and FEMA Approval of Tobacco Additives

Carob Bean Extract

Function of the Additive

Amount of Carob Bean Extract Added to Cigarettes

Pyrolysis and Reaction Products in Cigarette

Smoke

Cellulose Fibre

Function of the Additive

Amount of Cellulose Fibre

Guar Gum

Function of the Additive

Amount of Guar Gum Added to Cigarettes

Pyrolysis and Reaction Products in Cigarette
Smoke

Liquorice

Function of the Additive

Amount of Liquorice Added to Cigarettes

Pyrolysis and Reaction Products in Cigarette
Smoke

Menthol

Function of the Additive

Amount of Menthol Added to Cigarettes

Prune Juice Concentrate

Function of the Additive

Pyrolysis and Reaction Products in Cigarette
Smoke

Vanillin

Function of the Additive

Amount of Vanillin Added to Cigarettes

28. GLOSSARY OF TERMS FOR TOBACCO AND TOBACCO PRODUCTS

1. Scope

2. Terms

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29. PACKAGING & LABELING (Design Trends & Technologies)

Reclosability

Spout & Fitments

Flexible Packaging Shapes

Retort - Shelf Stable

Stick-Packs

Food Supply and the Protective Role of Packaging

The Value of Packaging to Society

Definitions and Basic Functions of Packaging

Packaging Strategy

Packaging Design and Development

The Packaging Design and Development

Framework

Product Needs

Distribution Needs and Wants of Packaging

Packaging Materials, Machinery and Production

Processes

30. PLASTICS IN FOOD PACKAGING

Introduction

Use of Plastics in Food Packaging

Types of Plastics Used in Food Packaging

Manufacture of Plastics Packaging

Plastic Film and Sheet for Packaging

Pack Types Based on Use of Plastic Films, Laminates etc.

Standard Units (Section 4)

31. PACKAGING LAWS AND REGULATIONS

Declaration on Packaged Commodities for

Interstate Trade or Commerce

Further Requirements Include

Standard Packages

Maximum Permissible Error

Label Declarations

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General Provisions Relating to Declaration of

Quantity

Symbols for Unit

General Guidelines on Giving Declarations

Violation of Law

The Prevention of Food Adulteration Act

Food and Adulteration

Packaging and Storage Requirements

Other Packaging Requirements under PFA

32. PHOTOGRAPHS OF MACHINERY WITH SUPPLIER'S CONTACT DETAILS

Dynamics 2500 Filter Assembler

Supari Chips & Ruff Cutting Machine

Automatic Supari Cutting Machine

Supari Chips Cutting Machine Auto Press

Supari Fadcha Machine

Automatic (Heavy Hopper Type) Bulk Supari
Multiple Cutting Machine
Automatic (Hoper Type) Circle, Routh Mamri
Supari Cutting Machine
3" Tobacco Cutting Machine
4.5" Tobacco Cutting Machine
6" Double Tobacco Cutting Machine
9" Double Tobacco Cutting Machine
6 Inch Tobacco Cutting Machine
Protos-M8
Tobacco Recycler
Filter Khani Packing Machine
Filter Snus Tobacco Portion Making Machine
Shisha Tobacco Packing Machine
Automatic Hukkah Pouch Packing Machine
Automatic Cigarette Filling Machine (Ryo-Mini-III)
Full-Automatic Drawing Cigarette Paper Machine
High Speed Gutkha Packing Machine
Tobacco Packing Machine
(xx)
Supari Cutter
Supari Grader
Supari Polisher
Dynamics 2500 Cigarette Making Machine
Cigarette Making Machine
Mark-9/Max-S Cigarette Maker
Mark8/Max3 Cigarette Maker

Tags

Pan Masala Manufacture, Pan Masala Project Report Pdf, Pan Masala Manufacturing Plant, Gutkha Making Formula, How to Make Gutkha in Factory, Gutka Pan Masala Project Report, Manufacturing of Tobacco, Pan Masala, Khaini and Gutkha, Manufacture of Pan Masala, Cultivation of Tobacco, Tobacco Farming, Tobacco Cultivation, Tobacco Industry, Tobacco Production Process, Tobacco Processing, Tobacco Products Processing, Tobacco Manufacturing Process PPT, Tobacco Processing Flow Chart, How to Start Your own Tobacco Business, Starting Tobacco Product Manufacturing, Tobacco Manufacturing, Tobacco Business in India, Tobacco Products, Chewing Tobacco, How to Make Chewing Tobacco, Smoking and Chewing Products Tobacco, Cigarette Manufacturing, How Cigarette is Made? Cigarette Manufacturing Process in India, Cigarette Manufacturing Process Pdf, Production of Cigarettes, Cigarette Manufacturing Plant Cost, Cigarette Manufacturing Plant, Beedi Manufacturing, Bidi Industry in India, Starting Tobacco Product Manufacturing Business, How Cigar is Made? Cigar Manufacturing, Tobacco and Cigar Production, Production Process of a Cigar, Manufacture of Cigars, Khaini, Zarda & Gutka Manufacturing Plant, Khaini, Zarda & Gutka, Smokeless Chewing Tobacco, Cost of Khaini Manufacturing, Khaini Manufacturing Industry, Manufacturing of Smokeless Tobacco, Khaini Tobacco Manufacture, Tobacco & Tobacco Products Manufacture, Zarda Factory, Zarda Manufacturing Business, Gutkha Manufacturing Unit, Gutkha Plant,

Gutkha Making Formula, Manufacture of Kattha, Kattha & Catechu, Kattha Manufacture, Kattha Industry in India, Katha Production, Mouth Freshener, Mouth Freshener Manufacturing Process, Mouth Freshener Manufacturing, Preparation of Mouth Freshner, Production of Pan Chatni, Kimam Manufacturing Business, Tobacco Kimam Manufacture, Tobacco and Pan Masala Formulations, Sweet Supari, Sweet Supari Manufacturing Plant, Scented Supari Processing, Sweet Supari Manufacture, Supari Business (How to Make Sweet Supari?) Sweet Supari Production Unit, How to Start Scented Supari Manufacturing Business, Nicotine Sulphate, How to Make Nicotine Sulfate, Nicotine Sulphate Manufacturing Process, USP Nicotine, Nicotine Tartarate, Nicotine, Polacrilex Resin), Project Report on Tobacco Manufacturing Industry, Detailed Project Report on Mouth Freshener Manufacturing, Project Report on Khaini Manufacturing, Pre-Investment Feasibility Study on Pan Masala Manufacturing, Techno-Economic feasibility study on Tobacco Manufacturing, Feasibility report on Pan Masala Manufacturing, Free Project Profile on Tobacco Manufacturing, Project profile on Mouth Freshener Manufacturing, Download free project profile on Pan Masala Manufacturing, How to Start a Pan Masala, How to Make Pan Masala or Gutkha Tobacco, Pan Masala Manufacturing Industry, Agricultural Business Ideas, Most Profitable Agriculture Business Ideas, Best Agriculture/Agro-Based Business Ideas, Money Making Agriculture Business Ideas in India, Money Making Agriculture Business Ideas, How to Start Agriculture Business, Money Making New & Innovative Agriculture Business Ideas

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Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

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