

Entrepreneur India

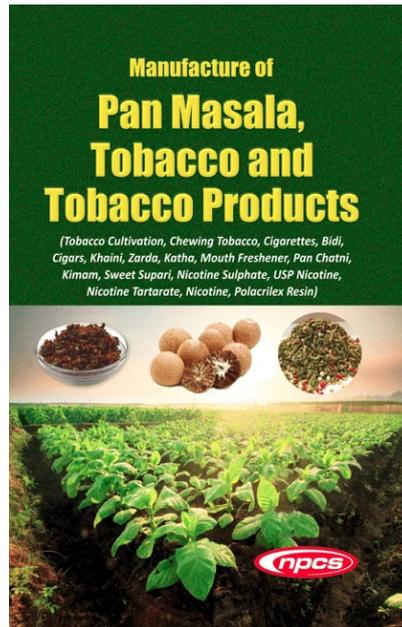
106-E, Kamla Nagar, New Delhi-110007, India.

Tel: 91-11-23843955, +91 9097075054

Mobile: +91-9097075054

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

Website: www.entrepreneurIndia.co



Manufacture of Pan Masala, Tobacco and Tobacco Products. 2nd Revised Edition

Code	NI317
Format	paperback
Indian Price	₹2225
US Price	\$200
Pages	448
ISBN	9788194737971
Publisher	NIIR PROJECT CONSULTANCY SERVICES

Description

Manufacture of

Pan Masala, Tobacco and Tobacco Products

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

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, BIS Specifications, 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, E-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 is one-stop guide to one of the fastest growing sector of the Pan Masala, Tobacco and Tobacco Products, where opportunities abound for manufacturers, retailers, and entrepreneurs. This is the only complete handbook on Pan Masala, Tobacco and Tobacco Products. It serves up a feast of how-to information, from concept to purchasing equipment.

Content

1. INTRODUCTION

History of Tobacco

Varieties of Tobacco

Origin and Distribution

Area and Production

Types of Tobacco

Climate and Soil

Tobacco Growing

Nursery Management

Tillage

Topping

Desuckering or Suckering

Ecological Requirement for Tobacco Cultivation

(A) Climatic Requirement for Tobacco Cultivation

(B) Soil Requirement for Tobacco Cultivation

Harvesting of Tobacco

Favoring Leaf Growth

After the Harvest

Curing Tobacco Leaves

Air-cured Tobacco Leaves

Flue-cured Tobacco Leaves

Sun-cured Tobacco Leaves

Fermenting (A.K.A. Sweating) Tobacco Leaves

Stacking

Kiln Fermenting

Methods of Harvesting

Priming

Stalk Cut Method

Harvesting Method of Tobacco Based on Different

Types

Plant Protection

1. Pests

Tobacco Leaf-Eating Caterpillar

Controls

2. Stem Borers

Control

3. Aphids

Control

2. TOBACCO CULTIVATION

Soils

Climate

Preparing the Seedbeds

Sowing the Seeds

Crop Cultivation

Transplanting

Fertilize

Irrigate

Topping and Suckering

Worms and Suckers

Tobacco Growing

Varieties of Tobacco Growing in Different States

FCV Tobacco (A.P.)

HDBRG Tobacco

Burley Tobacco

Natu Tobacco

Lanka Tobacco

Bidi Tobacco

Chewing and Hookah Types of Tobacco

Wrapper, Filler, Jati & Motihari Tobacco in North

Bengal

Types of Soil Required for Tobacco Cultivation

Northern Black Soils (NBS)

Central Black Soils (CBS)

Southern Black Soils (SBS)

Southern Light Soils (SLS)

Northern Light Soils (NLS)

Karnataka

Karnataka Light Soils (KLS)

Ecological Requirement for Tobacco Cultivation

(A) Climatic Requirement for Tobacco Cultivation

(B) Soil Requirement for Tobacco Cultivation

Factors Affecting Tobacco Growth

Temperature

Rain

Evaporation

Humidity

Sunshine

Wind

Types of Tobacco

Beedi Tobacco

FCV Tobacco

Burley Tobacco

Hookah Tobacco

Natu Tobacco

Cigar Tobacco

Forms of Tobacco

(1) Flue-cured

(2) Fire-cured

(3) Maryland Air-cured

(4) Dark Air-cured

(5) Cigar Types: Filler, Binder And Wrapper

(6) Perique

Process of Tobacco

The Harvest

The Corojo Harvest

The Criollo Harvest

Air-Drying

The First Fermentation

DE-Ribbing and Sorting

The Second Fermentation

Storage

The Preparation of the Tobacco

Alternative Uses of Tobacco

Integrated Barn

Banana Fibre Extractor

Palmyrah Fibre Separator

3. TOBACCO DISEASES AND PESTS

Bacterial Diseases

Fungal Diseases

Nematodes, Parasitic

Viral and Phytoplasma Diseases

Miscellaneous Diseases and Disorders

Granville Wilt (*Ralstonia Solanacearum*)

Symptoms

Cause

Comments

Management

Symptoms

Cause

Comments

Management

Blue Mold (*Peronospora Tabacina*)

List of Symptoms/Signs

Symptoms

Leaves

Stems

Cause

Comments

Management

1. Resistant Cultivars

2. Cultural Methods

(a) Chemical Control

(b) Induced Resistance

3. Collar Rot (*Sclerotinia Sclerotiorum*)

Symptoms

Factors that Affect the Development of Collar Rot

Cause and Disease Development

Management

Fungicides

Control Recommendation

Cultural Practices

Frogeye Leaf Spot (*Cercospora Nicotianae*)

Cause

Comments

Symptoms

Favorable Conditions

Disease Cycle

Management

Chemical Methods

Loopers (Cabbage Looper, Alfalfa Looper)

Trichoplusia ni *Autographa Californica*

Symptoms

Cause

Comments

Management

4. ORGANIC TOBACCO PRODUCTION

Introduction

Tobacco Culture

Transplant Production

Pests and Diseases in Seedling Beds

Field Growing

Harvesting

Curing

5. CHEWING TOBACCO

Chewing Tobacco and Other Forms of Smokeless

Tobacco

6. CIGARETTES

Raw Materials

Main Steps in the Manufacturing Process of

Cigarettes

Growing and Harvesting

Curing the Leaf

First Processing

Preparation of Basic Blends and Making of

Cigarettes

Adding of Humectants, Flavors and Flavourings

Packaging

7. BIDI

Birth of Bidi and the Industry

The Bidi Industry

Flavored and Herbal Bidis

Growth of the Tobacco Industry in India

Characteristics of the Bidi Industry

Women, Families, and the Bidi Industry

Tendu Leaves Drying in Sun for Beedi Cigarettes

Major Features of the Beedi Industry

Process of Work in Bidi Manufactory

Role of Women in the Bidi Industry

Methods of Production

Production Process: A Detailed Description

Interesting Bidi Facts

Marketing Channels of Cigarettes and Bidi

8. CIGARS

Lighting
Flavour
Smoke
Raw Materials
The Manufacturing Process
Cultivation of Tobacco
Curing
Fermenting
Stripping
Hand Rolling
Machine Rolling
The Production of Cigars
The Escaparate
Color Determination and Attachment of Cigar
Bands

9. READYMADE KHAINI

Introduction
Uses & Application
Manufacturing Process
Chemical Composition of the Fermented Chewing
Tobacco
Process Flow Diagram

10. CHEWING TOBACCO (KHAINI)

Introduction
Uses & Application
Process of Manufacture
Curing
Chemical Composition of the for Mented Chewing
Tobacco
Fermentation
Flow Sheet Diagram for Chewing Tobacco

11. ZARDA

Introduction
Chemical Composition of Smokeless Tobacco
Different Formulation of Zarda
Baba Zarda
Tulsi Zarda
Gopal Zarda
Bhola Zarda
Perfume & Tobacco Formulation for Zarda
Essence of Tobacco

Formula - A
Perfume formulation for No. 300 Type Zarda
Formula - B
No. 300 Types Zarda
Manufacturing Process of Zarda
Basic Raw Materials Required
Formulation
Process
Quality Control
Process Flow Diagram
12. BIS SPECIFICATIONS
13. KATHA
Introduction
Uses
Process of Manufacture
Process Flow Sheet for Katha & Cutch
14. MOUTH FRESHENERS
Properties
Uses and Applications
Manufacturing Process
Sweet Scented Supari
Process
Scented Sweet Chikni Supari
Process
Process Description
Formulation of Scented Supari
For Scented Coloured Supari
Process Flow Diagram
15. PAN CHUTNEY
Introduction
Formulations of Pan Chutney
Ingredients
Manufacturing Process
Preparation of Pan Chutney
Process Flow Diagram
16. PAN MASALA
Introduction
Uses & Applications
Manufacturing Process
Process Details
Making of Lime and Katha Solution

Katha Solution

Formulation for Pan Masala Tobacco Gutka

Flow Diagram

17. KIMAM TOBACCO OF VARIOUS GRADE

Introduction

Preparation of Kimam

Composition of Raw Material

18. SWEET SUPARI

Introduction

Uses and Applications

Manufacturing Process

Formulation of Scented Supari

Process Flow Diagram

19. NICOTINE SULPHATE

Manufacturing Process

Flow Diagram

Material Balance of Nicotine Sulphate

20. USP NICOTINE

Introduction

Manufacturing Process

Flow Diagram of the Product USP Nicotine

Mass Balance for USP Nicotine

21. NICOTINE TARTARATE

Manufacturing Process

Flow diagram of the product Nicotine Tartarate

Material Balance of Nicotine Tartarate

22. NICOTINE POLACRILEX RESIN

Introduction

Pharmacology

Pharmacokinetics

Manufacturing Process

Flow Diagram of the Product Nicotine Polacrilex

Resin

Material Balance of Nicotine Polacrilex Resin

23. SMOKELESS TOBACCO (SLT)

The Smokeless Industry

Chemical Composition of Smokeless Tobacco

Nicotine Content in Smokeless Tobacco

Carcinogenic Compounds in Smokeless Tobacco

(a) Volatile N-nitrosamines

(b) PAHs

(c) Other Carcinogenic Compounds and Constituents

Types of Smokeless Tobacco

Snuff

Snus

Dissolvable Tobacco

Pattiwala

Gutka

Dry Snuff (Tapkeer)

Uses of Smokeless Tobacco

(a) Betel Quid with Tobacco

(b) Chimó

(c) Creamy snuff

(d) Dry Snuff

(e) Gudhaku

(f) Gul

(g) Gutka

(h) Iq'mik

(i) Khaini

(j) Khiwam

(k) Loose-leaf

(l) Maras

(m) Mawa

(n) Mishri

(o) Moist Snuff

(p) Naswar

(q) Plug Chewing Tobacco

(r) Red Tooth Powder

(s) Shammah

(t) Snuff

(u) Tobacco Chewing Gum

(v) Tobacco Tablets

(w) Toombak

(x) Tuibur

(y) Twist/Roll Chewing Tobacco

(z) Zarda

Nasal Use

(a) Dry Snuff

(b) Liquid Snuff

24. HOOKAH

How Hookah Tobacco is Manufactured

Which Hookah Coals are Best for Pipes?

How to Set up a Hookah

Hookahs are Built by Combining Multiple Parts

Hookahs Today

Components

The Bowl

Windscreen (Optional)

Hose

Body and Gaskets

Purge Valve (Optional)

Plate

Grommets

Operation

What is a Water Bong? How does a Water Bong Work?

What's a Smoking Pipe? How does a Pipe Work?

How to Use a Hookah Shisha Pipe

Preparing Your Pipe

Preparing the Molasses

Lighting the Charcoal

Final Preparation

Further Tips

Foil and Air Holes

Heat Transfer to Your Pipe

Storing Your Shisha Molasses

Charcoal

Dehydration

Hookah Flavors of All Time

1. Al Fakher Mint

2. Tangiers Noir Cane Mint

3. Starbuzz Blue Mist

4. Nakhla Double Apple

5. Al Fakher Double Apple

6. Starbuzz Pirates Cave

7. Social Smoke Absolute Zero

8. Fumari White Gummi Bear

25. TOBACCO PRODUCTS MANUFACTURING

PROCESSES

Primary Tobacco Processing

Expanded Tobacco Process

Flavor Making

Reconstituted Tobacco Manufacturing

26. E-LIQUID (MAIN CHEMICALS, COMPOUNDS, COMPONENTS)

Main Components

Propylene Glycol (PG) Vegetable Glycerine (VG)

Polyethylene Glycol (PEG)

Propylene Glycol is

Vegetable Glycerin also known as Glycerol - is

Pharmaceutical Grade Glycerine is Named

Glycerine, USP

Composition

Main Components

Main Chemicals, Compounds, Components

Propylene (PG)

Vegetable Glycerin (VG)

Nicotine

Chemistry's Role

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

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.

The Standards of Weights & Measures Act (SWMA)

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
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
Supari Cutter

Supari Grader
Supari Polisher
Dynamics 2500 Cigarette Making Machine
Cigarette Making Machine
Mark-9/Max-S Cigarette Maker
Mark8/Max3 Cigarette Maker
Cigarette Making Machine
Semi-Automatic Agro Waste Briquette Making
Machine
Khaini Packing Machine
Khaini Tobacco Packing Machine
Coating Pan Machine

About Niir

NIIR Project Consultancy Services (NPCS) is a reliable name in the industrial world for offering integrated technical consultancy services. Its various services are: Pre-feasibility study, New Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Preparation of Project Profiles and Pre-Investment and Pre-Feasibility Studies, Market Surveys and Studies, Preparation of Techno-Economic Feasibility Reports, Identification and Selection of Plant and Machinery, Manufacturing Process and/or Equipment required, General Guidance, Technical and Commercial Counseling for setting up new industrial projects and industry. NPCS also publishes various technology books, directories, databases, detailed project reports, market survey reports on various industries and profit making business. Besides being used by manufacturers, industrialists, and entrepreneurs, our publications are also used by Indian and overseas professionals including project engineers, information services bureaus, consultants and consultancy firms as one of the inputs in their research.