

Handbook on Speciality Gums, Adhesives , Oils, Rosin & Derivatives, Resins, Oleoresins, Katha, Chemicals with other Natural Products

Author:- H.Panda

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The forest in India yields a large number of products, which play an important role in the economy of the country. Natural products may be extracted from tissues of terrestrial plants, marine organisms or microorganism fermentation broths. A crude (untreated) extract from any one of these sources typically contains novel, structurally diverse chemical compounds, which the natural environment is a rich source of. There are numerous product which is has a vital commercial applications for example gum karaya, locust bean gum, tamarind gum, rosin and rosin derivatives, turpentine and its derivaties, tall oil and its derivatives, essential oil of deodar, essential oils of cinnamum species and many more. Gum is any of a number of naturally occurring resinous materials in vegetative species. Various essential oils are also obtained from natural resources like deodar, Juniperus recurvavar, Suamata, Cinnamum species, agar wood etc. Tall oil products find use in many product applications because of their economy and ready availability. Tall oil is more like a chemical product with a constant and dependable supply and a steady price. It has a large number of applications like; adhesives, carbon paper, cement addition agent, detergents, drawing oils, fungicides, lubricants, soaps, rubber additives, surface coating etc. Phenolic adhesives continue to be the most significant adhesives for the production of weather resistant wood products. In terms of volume of trade, revenue and employment potential, the minor forest products have surpassed the traditional major forest products viz, timber, firewood, pulp, wood etc. Aromatic and medicinal plants are one the major resource from forests; the medicinal plants have been used since ancient times for the treatment of human ailments. Rosin, also called colophony is a solid form of resin obtained from pines and some other plants, mostly conifers, produced by heating fresh liquid resin to vaporize the volatile liquid terpene components. It is semi transparent and varies in color from yellow to black. At room temperature rosin is brittle, but it melts at stove top temperatures. It chiefly consists of different resin acids, especially abietic acid. Oleoresin is a naturally occurring mixture of oil and a resin extracted from various plants, such as pine or balsam fir. Over three quarters of the world population relies mainly on plants and plant extracts for health care. Natural products have evolved to encompass a broad spectrum of chemical and functional diversity. It is this diversity, along with their structural complexity, that enables small natural molecules to target a nearly limitless number of biological macromolecules and often to do so in a highly selective fashion. Because of these characteristics, natural products have seen great success as therapeutic agents. However, this vast pool of compounds holds much promise beyond the development of future drugs.

This book makes an attempt to provide information of chemical nature, physical properties, manufacturing process, purification, applications, and compatibility of gums, adhesives, oils, rosin & derivatives, resins, oleoresins, katha, chemicals with other natural products. This book

contains chapter on rosin and rosin derivatives, esterification of methylolated rosin, turpentine and its derivatives, tall oil and its derivatives, tall oil in liquid soaps, essential oils of cinnamum species, utilization of tannin from waste conicer barks, katha production in Tarai area of Uttar Pradesh, adhesives for wood based on natural polyphenolic substance, etc.

This book contains process of forest based products like Gums, Resins, Oleoresins, Essential Oils and other natural products obtained from Indian forests. It gives an insight of richness and vastness of the forest wealth. This book is first of its kind, which covers comprehensive treasure of information on a wide variety of products. This is very resourceful book for students, growers and marketing agencies, country where there is rich flora and fauna awaiting proper exploitation, production and utilization.

CHAPTER 1

GUM GHATTI

Chemical Nature

Physical Properties

Manufacture

Biological/Toxicological Properties

Handling

Application Procedures

Commercial Uses

Industries using Gum Ghatti

Formulations Wax Emulsion

Table Syrup Emulsion

Laboratory Techniques

Bark and Foreign Organic Matter (BFOM)

Viscosity (5% Solution)

Viscosity (7% Solution)

CHAPTER 2

GUAR GUM

Manufacture

Seed Structure

Purification

Grades

Chemical and Physical Properties

Structure

Solubility in Water

Rheology

Reactivity

Biological Properties

Handling

Dry Storage

Solution Preparation

Applications

Oil and Gas

Explosives

Textile

Food

Paper

Mining

Commercial Applications: Compounding and Formulating

Food

Explosives

Commercial Uses: Processing Aids

Oil and Gas
Textile
Carpets
Paper
Kraft Papers
Kraft Linerboard
Recycled Linerboard
Corrugating Medium
Boxboard
Offset News Stock
White Papers
Mining
Industries using Guar Gum
Oil and Gas
Explosives
Food
Paper
Textile
Mining
Formulations
Ice Cream
Ice Milk
Sherbet
Sour Cream
Buttermilk
Yogurt
Instant Imitation Bakery Jelly
Whipping Composition for Frozen Deserts

CHAPTER 3
GUM ARABIC
Chemical Nature
Physical Properties
Manufacture
Biological/Toxicological Properties
Rheological Properties
Additives/extenders
Additives
Extenders Handling
Applications
Application Procedures
Compatibility
Commercial Uses
Food Applications
Confectioneries
Dairy Products
Bakery Products
Flavor Fixation
Flavor Emulsification
Beverages
Pharmaceutical
Suspending Agent
Demulcent Agent

Emulsification
Antiseptic Preparation
Miscellaneous Applications Medicines
Cosmetics
Adhesives
Paints
Inks
Lithography
Textiles
Miscellaneous Uses
Industries using Gum Arabic
Food Industry
Pharmaceutical Industry
Cosmetic Industry
Other Industries
Formulations
Confectioneries
Food Emulsions
Pickle Oil Emulsion
Pickle Juice
Beverages
Stabilized Fruit Drink
Dry mix Limitation Orange Drink
Cloud Gum
Beverage Stabilizers
Nut Coating
Inks
Gloss finish Inks Wood grain Inks
Laboratory Techniques
30% Viscosity Method
Insoluble Residue
Sediment and Color
Peroxidase Content

CHAPTER 4
GUM KARAYA
General Information
Chemical Nature
Physical Properties
Films
Adhesiveness
Hydrolysis
Pastes
Grades
Manufacture
Biological/Toxicological Properties
Short term Studies
Long term Studies
Special Studies
Rheological Properties
Handling
Applications
Application Procedures

Compatibility
Future Developments Commercial Uses
Commercial Uses
Pharmaceuticals
Pulp and Paper
Food Products
Textiles
Petroleum and Gas Recovery
Industries using Gum Karaya
Formulations : Pharmaceuticals
Denture Adhesive
Colostomy Rings
Cosmetic
Alcohol Wave set Concentrate
Typical Wave set Formula
Food Products : Sherbet Stabilization

CHAPTER 5
GUM TRAGACANTH
Chemical Nature
Structure
Reactivities Acid
Labile Sugars
Electrochemical Properties
Physical Properties : Rheological Properties
Biological/Toxicological Properties
Consumer Exposure Data
Caloric Value
Hypercholesterolemia
Tumors
Allergenic Properties
Lethal Effects
Manufacturing and Quality Control
Handling
Additives and Extenders
Application Procedures
Specialties
Future Developments
Commercial Uses: Compounding and Formulating
Pharmaceutical and Medical
Food Products
Ice Cream Stabilizers
Water Ices
Commercial Uses: Processing Aids
Crayon Manufacture
Ceramics Manufacture
Leather Curing
Textiles Processing
Paper Processing
Wooden Match Manufacture
Industries using Gum Tragacanth
Food Industry

Pharmaceutical and Cosmetic Industries
General Industrial Uses
Formulations
Italian Dressing
Russian Dressing
Blue Cheese Dressing
French Dressing
Low calorie Italian type Dressing
Sweet and Sour Sauce
Low calorie French type Dressing
Barbecue Sauce
Dietetic (artificial) Fruit Jelly
Citrus flavor Beverage Emulsions
Low calorie Chocolate Syrup
Low calorie Chocolate Pudding
Marshmallow Topping
Nondairy Sour Cream
Toasted Onion flavored Chip Dip
Mexican flavored Chip Dip
Tuna, Chicken and Ham Salad Spreads

Cole Slaw Dressing
Imitation Mayonnaise Dressing
Mustard Sauce
Spaghetti Sauce
Pickle Relish
Laboratory Techniques
Identification
Microscope Instrument
Viscosity Testing

CHAPTER 6
LOCUST BEAN GUM
Manufacture
Seed Structure
Purification
Grades
Properties
Structure
Solubility in Water
Rheology
Reactivity : Derivatives
Commercial Uses : Compounding and Formulating
Food Products
Ice Cream
Cheese
Sauces and Salad Dressings
Canned Pet Food
Commercial Uses : Processing Aids
Textiles Processing
Carpets Processing
Dyeing Carpets
Paper Products

Wet end Addition
Gum Preparation
Mining Industry
Industries using Locust Bean Gum : Food Industry
Mining Industry
Paper Industry
Textiles Industry
Formulation Ice Cream
Ice Milk
Sherbet
Sour Cream
Buttermilk
Yogurt
Instant Lmitation Bakery Jelly
Whipping Cream Composition (for Frozen Desserts)

CHAPTER 7
TAMARIND GUM
Chemical Nature
Molecular Weight
Derivatives
Miscellaneous
Physical Properties
Manufacture
Biological/Toxicological Properties
Electrochemical Properties
Rheological Properties
Handling
Applications
By Result
By End Product
By Industry
Application Procedures
Future Developments
Commercial Uses
Processing Aids
Industries using Tamarind Gum
Formulations
Size for Jute Yarn
Size for Cotton Warps
Latex Manufacture
Other Uses
Laboratory Procedures
Viscosity Method
Acid Insoluble Residue (Air)
Fat Content 33
Term Glossary
General Information
Chemical Structure
Physical Properties
Solution Properties
Effect of Salts on Viscosity
Effect of PH on Viscosity

Gelation With Metals
Regulatory Status
Commercial Uses : Food
Xanthan Gum
Dressings
Foods and Drinks
Other Products
Xanthan Gum With Locust Bean Gum
Commercial Uses : Industrial
Xanthan Gum
Viscosity Control
Other Applications
Xanthan Gum With Locust Bean Gum
Agricultural Sprays
Gelled Products
Slurried Explosives
Fire Fighting
Paper Sizing
Photographic Processing
Formulations
Dessert Souffles
Vanilla Souffle
Chocolate Souffle
Lemon Souffle
Bakery Jellies
Salad Dressings
Green Goddess
Creamy Russian
French Dressing
Creamy Italian
Italian Dressing
Dry Sauce Mixes
Cheese Sauce Mix
Barbecue Sauce Mix
Spaghetti Sauce Mix
White Sauce Mix1
Frozen Pizzas
Animal Feeds (Liquid)
Laboratory Techniques
Viscosity (Food Grade)
Viscosity (Industrial Grade)
Moisture Content
Powder Color
Determination of Gum in Mixtures

CHAPTER 8
CASSIA SIAMEA LAM. SEED
A NEW SOURCE OF COMMERCIAL GUM
Material and Methods
Results and Discussion

CHAPTER 9
ROSIN AND ROSIN DERIVATIVES

Composition
Reaction and Derivatives
Isomerization
Maleation
Oxidation
Photosensitized Oxidation
Hydrogenation
Hydrogenless Hydrogenation
Polymers of Vinyl Esters of Hydrogenated Rosin
Perhydrogenation
Hydrocracking of Rosin
Dehydrogenation
Polymerization
Analysis
Instrumental Analysis
Phenolic Modification
Salt Formation
Esterification
Hydrogenolysis
Polyesterification
Copolyesters
Ammonolysis
Preparations
Typical Uses
Styrenation
Decarboxylation
Hydroxymethylation and Hydroxylation
Nitrogenous Intermediates
Oxonation
Esterification of Methylolated Rosin
Amidation (12 AEAA)
Halogenated Rosin
Non phthalic Alkyd Resins
Shellacemodified Rosin
Use of Rosin in the Polymer Field
Adhesives
Hot Melt Adhesives
Chewing Gum
Floor Polishes
Flooring Materials (Vinyl Flooring)
Linoleum
Paper Sizing
Printing Inks
Letter Press Inks
Flexographic Inks
Gravure Inks
Lithographic Inks
Protective Coatings
Air Drying Hammer Finish
Epoxy Esters
Lacquers
Varnishes
Rubber

Pharmaceutical Uses

CHAPTER 10

TURPENTINE AND ITS DERIVATIVES

Introduction

(i) Processing of Oleoresin

I. Olustee Gum Cleaning Process

II. Recovery of Turpentine and Rosin

Batch Processing

Continuous Processing

Heater

Stripping Column

1. Multiple Tube Column

2. Luwa Columns

(ii) Fractionation of Turpentine

Batch Operation

Semi continuous Operation

Continuous Operation

Column Packings

Catalytic Isomerization of alpha pinene

pinene

carene

Longi Folene

Methods of Preparation of Terpene Derivatives

Camphene

Thaneite : Properties

Applications

P Menthadienes and P cymene

Myrcene

Alloocimene

Geraniol and Nerol

Linalool

Citral

Ionones and Methylionones

Citronellol

Citronellal

Myrcenol

Menthol

Carvone

Camphor

Pine Oil

Terpin Hydrate

Terpineols

Isobornyl Acetate and Isoborneol

Cineoles

Terpen Resin (TPR)

Thymol

Xtane 505

Terpinyl Acetate

Isolongi Folene

Acetyl Longifolene

Camphor Oil

Fenchone

Acinol
Acinone
Pinetar
Future Utilizations
Uses of Terpene Derivatives
Perfumes and Flavours
Jasmin
Orange Flower and Neroli
Violet
Fougere (Fern)
Lily of the Valley
Linden (Lime Blossom)
Green Perfumes
Perfumes for Men
Soap
Masking
Agarbatti
Textile Perfumes
Aerosol Products
Supari Chewing Tobacco
Cigarettes
Boot Polish
Perfumed Disinfectants
Medicines
Pressure Sensitive Adhesives (PAS)
Hot Melt Adhesives (HMA) and Coatings
Other Uses
Latest Uses of Terpene Solvent

CHAPTER 11

TALL OIL AND ITS DERIVATIVES

Production Processes for Tall Oil
Recovery of Tall Oil
Acid Refining of Tall Oil
Fractionation of Tall Oil
Composition and Properties of Tall Oil
Crude Tall Oil
Distilled Tall Oil
Acid Refined Tall Oil
Fractionated Tall Oil
Analysis and Testing of Tall Oil Products
Shipping, Storage, and Handling of Tall Oil Products
Crude Tall Oil
Acid Refined Tall Oil
Tall Oil Fatty Acids and Distilled Tall Oils
Tall Oil Heads
Tall Oil Pitch
Tall Oil Rosin
Applications of Tall Oil

CHAPTER 12

THE CHEMISTRY OF TALL OIL FATTY AND ROSIN ACIDS

Chemical Composition of Tall Oil Fatty Acids

General Reactions of Tall Oil Fatty Acids
Reactions Involving the Double Bonds
Reactions Involving the Carboxyl Group
Chemical Composition of Tall Rosin
General Reactions of Tall Oil Rosin
Reactions Involving the Carboxyl Group
Reactions Involving the Double Bonds

CHAPTER 13

TALL OIL PRODUCTS IN SURFACE COATINGS

Tall Oil in Alkyd Resins
Tall Oil Formulation in Alkyd Resins
Short Oil Banking Alkyd solvent Process
Short Oil Banking Alkyd fusion Process
Long Oil Alkyd fusion Process
Rosin Modified Alkyd fusion Process
Epoxy Modified Alkyd
Esters of Tall Oil Products Tall Oil Fatty Acids
Tall Oil Rosin
Tall Oil Formulations in Esters
Glycerine Ester
Maleic Modified Ester
Distilled Tall Oil Epoxy Ester
Tall Oil Pitch
Other Uses for Oil Products
Limed Tall Oil Rosin
Limed Acid Refined or Distilled Tall Oils
Styrene Resins
Latex Paints
Polyurethanes
Putty and Caulking Compounds
Varnishes
Tallate Driers
Tempering Oils for Hardboard

CHAPTER 14

TALL OIL IN THE PLASTICIZER FIELD

Tall Oil Plasticizers
Esterification of Tall Oil for Plasticizers

CHAPTER 15

TALL OIL IN ADHESIVES AND LINOLEUM CEMENT

Tall Oil Rubber Adhesives
Tall Oil in Hot Melt Adhesives
Tall Oil Products in Linoleum Cements
Formulation With Tall Oil
Formulation With Tall Oil Esters

CHAPTER 16

TALL OIL IN ASPHALT PRODUCTS AND PETROLEUM USES

Tall Oil in Asphalt
Roads
Soil Treatments

Roofing
Adhesives
Antistripping Agents
Plasticizers
Miscellaneous
Tall Oil in Petroleum Applications
Oil and Gas Well Fracturing
Drilling Muds
Demulsification Agents
Corrosion Inhibitors
Catalyst
Lubricating Oil Additives

CHAPTER 17

TALL OIL IN LIQUID SOAPS

Tall Oil in Disinfectants
Tall Oil in Synthetic Detergents and Wetting Agents
Syndet Types
Syndet Products
Tall Oil in Biodegradable Detergents

CHAPTER 18

TALL OIL IN FLOTATION COLLECTORS AND CORE OILS

Tall Oil in Flotation Collectors
Flotation Collectors
Flotation Applications
Tall Oil in Core Oils

CHAPTER 19

TALL OIL IN RUBBER

Styrene butadiene Rubber
Cold SBR Formulation (SBR 1500 Series)
Hot SBR Formulation (SBR 1000 Series)
Cold High Solids SBR 2105 Latex Formulation (SBR 2100 Series)
Hot SBR Latex Formulation (SBR 2000 Series Type II)
Foam Rubber

CHAPTER 20

TALL OIL IN PAPER SIZING

Paper Making Process
Rosin Sizing Materials
Forms of Size Available
Paste Size
Dry Size
Methods of Preparing Liquid Size
Cooking Process
Emulsion Process
Bewoid Process
Delthirna Process
Internal and External Sizing
Effect of Wet Strength Resins and
Paper Coating Resins on Sizing
Sizing of Nonconventional Paper

Testing of Sizing
Water Resistance of Paper and Paperboard T433 M 44
(Dry Indicator Method)
Water Immersion Test of Paperboard
Water Absorption of Paperboard
Water Absorptiveness of Nonbibulous Paper and Paperboard
T441 M 60 (Cobb Test)
Degree of Curl and Sizing of Paper T466 M 52
Ink Penetration Test
Fotosize Penetration Test Lactic Acid Test

CHAPTER 21

TALL OIL IN PRINTING INKS

Typographic Printing and Typographic Inks
Heat Set Inks
Steam Set Inks
Newsprint Inks
Lithographic Printing and Lithographic Inks
Intaglio or Gravure Printing and Gravure Inks
Silk Screen Printing Inks
Overprint Varnishes
Bag Inks

CHAPTER 22

MISCELLANEOUS APPLICATIONS OF TALL OIL

Tall Oil Fatty Acids for Chemical Intermediates
Polymerized Fatty Acids
Azelaic and Pelargonic Acids
Tall Oil in Corecipitated Barium Salts
Tall Oil in Defoamers
Tall Oil Pigment Dispersants
Tall Oil in Masonry and Cement Coatings

CHAPTER 23

EUCALYPTUS : A VERSATILE MATERIAL FOR AROMA CHEMICALS

CHAPTER 24

HIMALAYAN CEDARWOOD OIL

Indian Himalayan Cedarwood Oil
Comparative Studies
Export of Himalayan Cedarwood Oil from India
Solvent Extraction of the Oil
Purification of the Oil
Empyreumatic Himalayan Cedarwood Oil Vern. Chiloan Oil

CHAPTER 25

ESSENTIAL OIL OF DEODAR (CEDRUS DEODARA)

The Essential Oil
Raw Material
Physico chemical Properties
Chemical Composition of C. Deodara
Distillation

CHAPTER 26
ESSENTIAL OIL OF JUNIPERUS RECURVA VAR.
SQUAMATA AND OTHER OILS OF JUNIPERUS SPP.
Oil From Berries
Oil From Leaves
Oil From Wood
Experimental
Tlc of the Oil
Glc of the Oil

CHAPTER 27
AGARWOOD AND OIL OF ARARWOOD
Physico chemicals Properties and Chemical Composition
Trade and Production of Agar and Its Oil
Uses

CHAPTER 28
ESSENTIAL OILS OF CINNAMUM SPECIES
Cinnamum Cassia (nees) Nees Ex Blume
Export Import of Cassia and Tejpat Leaves

CHAPTER 29
LIGNIN AND ITS DERIVATIVES
Primary Source
Manufacture of Lignin and Its Derivatives:
General Properties
Commercial Lignins
Uses

CHAPTER 30
UTILIZATION OF TANNIN FROM WASTE CONICER BARKS
Chir Pine and Its Availability
Technical Analysis
(a) Evaluation Studies
(b) Leaching Studies
(c) Tanning Procedure : (1)
Conclusion and Suggestions

CHAPTER 31
LEACHING AND TANNING STUDIES ON
COMMERCIAL GRADE NASPAL (POMEGRANATE RIND)
Experimental
Conclusions

CHAPTER 32
CHEMICAL EXAMINATION OF THE TANNIN
PEARING PLANTS OF THE FORESTS OF ANDHRA PRADESH

CHAPTER 33
SAL SEEDS A NEW SOURCE OF TANNING MATERIAL

Isolation and Identification of Polyphenolic Constituents
Separation and Utilisation of Sal Tannings

CHAPTER 34

PREPARATION OF PHENOLIC RESINS FROM
MYROBALAN TANNIN EXTRACTS

Polyphenolic Compounds of Myrobalan

Reaction of Formaldehyde With Myrobalan Extract in Presence of
Both Acid and Alkali Catalyst

Condensation With Formaldehyde

Condensation Reaction of Gallic Acid with Formaldehyde

Reimer Tieman Reactions

Duff Reaction

Villsmeyer Reaction

CHAPTER 35

KATHA PRODUCTION IN TARAI AREA OF UTTAR PRADESH

Chipping

Extraction

Concentration

Crystallization

Filtration

Hydraulic Press

Hydraulic Press

Drying of Katha Batties

Manufacture of Deshi Katha

Utilization of Byproducts

CHAPTER 36

STUDIES ON THE EFFECTS OF WOOD MOISTURE ON
THE RECOVERY OF KATHA FROM ACACIA CATECHU

Experimental

Result & Discussion

Inferences

CHAPTER 37

EXTRACTION OF PURE CATECHIN FROM KHAIR WOOD
AND KATHA SAMPLES AND AN IMPROVED METHOD FOR
ITS ESTIMATION

Experimental

Extraction of Catechin From Wood by using Organic Solvents

CHAPTER 38

ADHESIVES FOR WOOD BASED ON
NATURAL POLYPHENOLIC SUBSTANCE

Adhesives Based on Tannins

Tannins are Classified in two Groups

Adhesives Based on Lignins

CHAPTER 39

LAC PRODUCTION, UTILISATION AND FUTURE

Production

Utilisation

CHAPTER 40
HIGH ALPHA CELLULOSE PULP EXPERIMENTAD
RESUMS & DISCUSSION FROM POPLAR CASALE
Analysis

CHAPTER 41
HIGH ALPHA CELLULOSE FROM FAST GROWING
PLANTS SUCH AS CROTALARIA JUNCEA AND
CROTALARIA RETUSA
Experimental
Results & Discussions

CHAPTER 42
UTILIZATION OF PINUS CARIBAEA NEEDLES FOR
FIBRE BOARDS
Material & Method
Board Formation
Additives Blending
Pressing
Results and Discussions

CHAPTER 43
WOOD POLYMER COMPOSITES AND
THEIR INDUSTRIAL APPLICATIONS
Chemistry of the Process
Impregation Process
Monomers for Wood Polymer Composites
Physical Properties
Commercial Applications
Catalys Heat Process
World Wide Production

CHAPTER 44
POLYURETHANE FOAMS FROM THE REACTION OF
BARK AND DIISOCYANATE

CHAPTER 45
PARTICLEBOARD MANUFACTURE AND PROCESSING
Definition
Raw Materials
Wood
Adhesive
Wax Emulsions
Manufacturing : Particle Preparation
Particle Drying
Blending
Mat Formation
Pressing Operation
Finishing
Surface Finishing
Grain Printing on Flat Panels
Conclusion

CHAPTER 46

CARBOHYDRATE MODIFIED PHENOL FORMALDEHYDE RESINS FORMULATED AT NEUTRAL CONDITIONS

Experimental Methodology : Adhesive Formulation

Veneer

Bonding

Determination of Shear Strength

Prehydrolysis of Southern Red Oak

Extraction of Cured, Modified Phenol formaldehyde Resins

Isolation of Compounds VI VIII

Results and Discussion : Bonding Veneer Panels

Incorporation of Carbohydrate Into Cured Resin

CHAPTER 47

UTILIZATION OF MINOR OIL SEEDS

Appendix

Mahuva : (*Madhuca Latifolia* or *M. Lonoifolia*)

Sal : (*Shorea Rubra*)

Kusum : (*Schleichera Trijuga*)

Khakhan : (*Salvadora Olecedes*)

Tamarind : (*Tamarindus Indica*)

Undi : (*Calophyllum Inophyllum*)

Karanda Oil : (*Pongamia Glabra*)

Pisa : (*Aetinodaphne Bookeri*)

Neem : (*Azadirachta Indica*)

Kokum : (*Garcinia Indica*)

Dhupa : (*Vateria Indica*)

CHAPTER 48

CHEMICAL INVESTIGATION OF FATTY OIL OF BURSERA PENICILLATION SEED

Composition of the Seed Kernel Oil

CHAPTER 49

ABUTILON INDICUM SEED OIL: CHARACTERISATION OF HBR REACTIVE ACIDS

CHAPTER 50

A NEW β HYDROXY OLEFINIC FATTY ACID IN PLANTAGO MAJOR (PLANTAGINACEAE) SEED OIL

CHAPTER 51

GLYCOLIPIDS OF BORAGINACEA SEED OILS

CHAPTER 52

STYRENE COPOLYMERIZATION OF BABUL (ACACIA) OIL AND ITS ALKYL

Experimental Materials Used

Refining and Bleaching of the Oil

Isomerization

Styrenation of Babul Oil

Preparation of Styrenated Alkyls

Pre styrenation Process
Formulation
Post Styrenation Process
Formulation
Testing
Results and Discussion
Conclusion

CHAPTER 53 INVESTIGATION OF NEEM SEED SHELL FLOUR

Experimental : Preparation of Sample
Treatment of the Shell Flour
Preparation of Moulding Powder

CHAPTER 54 DEVELOPMENT OF SALSEED OIL INDUSTRY

CHAPTER 55 STUDIES ON TAMARIND KERNEL OIL

Experimental : Materials
General Methods
Extraction, Purification and General Characterization of
Tamarind Kernel Oil
Analysis of Fatty Acid Composition
Extraction and Identification of Monoglycerides
Extraction and Identification of Free Fatty Acids
Isolation and Characterization of Unsaponifiable Matter
Fractionation of Tamarind Kernel Oil
Analysis of Neutral Lipids
Deacylation of Phospholipid Fractions
Hydrolysis of Phospholipids, Identification of Bases
Identification of Polyhydroxy Compounds
Analysis of Glycolipid Fraction
Identification of Component Sugars
Tlc Analysis of Glycolipid Fraction
Analysis of Sterol Glycoside
Componental Analysis of Asg
Results and Discussion : Total Fatty Acids
Neutral Lipids
Unsaponifiable Matter
Samples Phospholipids
Glycolipids

CHAPTER 56 TECHNOECONOMIC EVALUATION OF ANGELICA ARCHANGELICA ROOTS AS A COMMERCIAL SOURCE OF ANGELICA OIL

Materials and Methods
Technoeconomic Evaluation

CHAPTER 57 COMMERCIAL UTILISATION OF INDIAN BERBERIS Raw Material

Chemical Evaluation
Resources

CHAPTER 58
PROCESS DEVELOPMENT FOR HECOGENIN AND
SOLASODINE

Hecogenin From Agave Species
Solasodine From : Solanum Khasianum

CHAPTER 59
PRODUCTION OF STRYCHINE AND BRUCINE FROM
NUX VOMICA PROCESS:

Process
Yields
Equipments Required
Raw Materials
Economics

CHAPTER 60
AN IMPROVED METHOD FOR THE PRODUCTION OF
BRUCINE AND STRYCHNINE FROM STRYCHNOS
NUX VOMICA BARK

Uses
Earlier Methods of Extraction of Strychnine and Brucin
Improved Method for the Extraction of Brucine and Strychnine

CHAPTER 61
HERACLEUM SPECIES AS SOURCES FOR
FURANOCOUMARINS

CHAPTER 62
MEDICINAL AND AROMATIC PLANT RESOURCES OF
THE KUMAON HIMALAYAS: PRESENT POSITION, FUTURE
STRATEGIES AND PROSPECTS

Appendix 1 : Medicinal Plants Bearing Alkaloids
Appendix II: Plants Bearing Glycosides
Appendix III : Plants Bearing Edible and
Appendix IV : Plants Bearing Tannins
Appendix V : Plants Bearing Essential Oils

CHAPTER 63
UTILIZATION OF APRICOT KERNELS AND
A SOURCE OF VITAMIN B15

CHAPTER 64
SOLVENT EXTRACTION OF ARTEMISIA ANNUAL ON
PILOT PLANT SCALE

Experimental Procedure
A. Bench Scale Study
B. Pilot Plant Scale Study
Results and Discussion

CHAPTER 65

CANDELILLA WAX
Results and Discussion
Transplanting and Harvesting
Yield of Stems and Wax
Physico Chemical Properties
Results & Discussion

CHAPTER 66
CHEMURGY OF KALPVRIKSHA

Collection
Transportation
Drying
Decortication
Crushing/Extraction
Solvent Extraction
Saponin
Wet Rendering Process
Production of Palmitic Acid
High Pressure Splitting
Meal
Seed Coat

CHAPTER 67
UTILIZATION OF MOHUA FLOWERS FOR
CITRIC ACID PRODUCTION

Materials and Methods
Microorganism
Growth of the Organism
Viscosity
Determination of Sugar
Determination of Citric Acid: Fermentation Conditions
Results and Discussion
Effect of Cultural Conditions of Citrate Production

CHAPTER 68
INDUSTRIAL UTILIZATION OF KOKAM

CHAPTER 69
NUTRITIVE VALUE OF SOME LESSER KNOWN
WILD FRUITS OF JAMMU & KASHMIR STATE

Availability and Utilization
Experimental
Results and Discussion

CHAPTER 70
WILD VEGETABLE OOD MATERIALS OF JAMMU AND KASHMIR

Bauhinia Variegata Linn
Bombax Ceiba Linn
Capparts Spinosa Linn
Caralluma Tuberculata N.E. Br.
Cicer Soongaricum Stapf
Coccinia Cordifolia
Codonopsis Ovata Benth

Corylus Colurna Linn.
Diplaium Esculentum
Emblica Officinalis Gaertn.
Eremurus Spp.
Euphorbia Royleana Linn.
Megacarpaea Polyandra Benth.
Momordica Dioica Roxb.
Morniga Oleifera Lamk
Punica Ranatum Linn
Rheum Spp. R.emodi Wall
Taraxacum Officinale Weber
Telosma Pallia Craib. (D.Goalmanda)

CHAPTER 71

EDIBLE MUSHROOMS OF JAMMU & KASHMIR FORESTS

Morels (Morchella Sp.)
Dhingri (Pleurotus)
Pleurotus Fossulatus (Cooke) Sacc
Pleurotus Flabellatus (Berk, and Br.) Sacc; Vern
Other Edible Mushrooms
Coprinus
Geopora Arenicola
Boletus Sp.
Agrocybe Cylindracea (D.C. ex. Fr) R.maire
Flammulina Velutipes Curt. Ex. Fr. (Karst): Lactarius
Scrobiculatus Scop. Ex. Fr.
Tuber Cibarium Sibth.

CHAPTER 72

PROSPECTS OF FURFURAL AND FURFURAL BASED INDUSTRIES IN INDIA

Uses
Conventional Processes
Possibilities
Conclusion

CHAPTER 73

KEWDA INDUSTRY IN ORISSA

Distribution Pattern and Availability of the Plant
Historical Development and Present Set Up of the Industry
Uses and Demand of the Perfume
Collection
Distillation
Cost Estimation
Present Position and Future Prospects of the Industry

CHAPTER 74

PENCIL RAW MATERIALS IN KERALA

Industry A Birds Eye View
Specification of Wood
Species Used and Availability
Some Suggestions conclusion
Conclusion

CHAPTER 75

FOREST BASED RAW MATERIALS IN NEPAL

Tropical Zone (below 1000 M)

Sub Tropical Zone (1000 2000 M)

Temperate Zone (2000 3000 M)

Sub Alpine Zone (3000 4000 M)

Climate and Temperature

Raw Materials

Plants Yielding Vegetable Gums and Resins

Bengal Kino Gum or Palash Gum

Sal Gum

Sahanjan Gum

CHAPTER 76

MINOR FOREST PRODUCTS OF BIHAR

CHAPTER 77

INDUSTRIALLY IMPORTANT MINOR FOREST PRODUCTS OF ORISSA

Plants Used in Drug and Pharmaceutical Industry

Plants Used in Perfumery Industry

Vetiveria Zizanioides (Vetiver)

Cymbopogon Flexuosus (Lemongrass)

Hyptis Suavelens (Linn.) Poit

Plants Yielding Gums and Resins of Industrial Use

Plants Used in Vegetable Oil and Fat Industry

Madhuca Latifolia (Roxb)

Pongamia Pinnate (Linn.)

Sehleichera Elesa (Lour)

Plants Used in Food or Food colourant Industries

Bixa Orellana Linn

Plants Used in Leather Tanning Industry

Cleistanthus Collinus (Karade)

Broomgrass for Broom Industry

Kendu for Bidi Manufacturing Industry

Bamboo for Pulp in the Paper Industry

Fibre Yielding Plants for Cordage Industry

List of Address of Machinery Suppliers

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NIIR PROJECT CONSULTANCY SERVICES, 106-E, Kamla Nagar, New Delhi-110007, India.
Email: npcs.india@gmail.com **Website:** NIIR.org

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