

Herbs Cultivation & Their Utilization

Author:- NIIR Board

Format: paperback

Code: NI55

Pages: 522

Price: Rs.800US\$ 100

Publisher: NIIR PROJECT CONSULTANCY SERVICES

Usually ships within **5** days

India is one of the leading Herbs producer and exporter in the world. Several meticulous researches were conducted and experimented with herbs. They arrived at more precise conclusions about the usefulness of diverse plants and herbs that are utilized in different fields like medicine, cosmetics, perfumes and so on. The Ayurveda healing is completely based on herbs, which have definite medicinal importance or significance. In the primeval times, the Indian sagacious held the view that ayurveda herbs are the only resolution to treat numeral health related problems and diseases. Herbal products are replacing the synthetics products because of its harsh nature. Herbal products are in huge demand in the developed world for health care for the reason that they are efficient, safe and have lesser side effects. Growing herbs is easy to do, and people continue to turn their love for gardening into successful businesses growing and selling fresh cut herbs, herb plants, and other herb related products. The book makes an attempt to provide information on cultivation and utilization of herbs. The book also contains the described process of the cultivation of medicinal herbs, spices etc with photograph and diagrams. This book also describes about the role of perfumery, analysis of essential oils and flavors, recent development of some natural products and more. This book covers the comprehensive information on herbs cultivation & their utilization. We hope that this book will be very helpful for new Entrepreneurs, Herb Growers, professionals & research Institutions.

1. MEDICINAL PLANTS-PRIORITIES IN INDIAN MEDICINES

Medicinal Plants Based Drug Industry

Medicinal Plants Based Drug Industries in Indian systems of Medicine

Plant Parts Extract and Galenicals

Essential Oils from Plants

Phytopharmaceuticals

India's Strength in Medicinal Plant Wealth

Priorities in Research on Medicinal Plants & Diverse Studies

Antiprotozoal Drugs from Plants

Antiulcer Drugs from Plants

Antirheumatic Plant

Antidiabetic Plants

Antiasthmatic Plants

Antiviral Plants

Hepatoprotective Plants

Fertility Control by Plants

Anti-Cancer Drugs from Plants
Plant for Urinary Stones
Plants as sedatives/tranquillizers
Plant Laxatives
Pitfalls in Plant-Drug Research and Implications
Herbal Drug/Intellectual Property Rights (IPR)
Herbal Drug Trade
Herbal Medicines-Medicinal Marvel or Money Spring Malarkey
Sociopolitical,Economical & Ethical Issues in Medicinal Plants Research
Herbal Drug Development
Standardization of Herbal Drugs
2. MEDICINAL PLANTS IN ORAL HEALTH CARE IN INDIA

INTRODUCTION

Use of Medicinal Plants for Dental Care
Plants Useful as Chewing Stick

3. CHAMOMILE CULTIVATION

INTRODUCTION

Description of the Plant

Genetics

CULTIVATION

Soil and Climate

Propagation/Nursery

Transplantation, Irrigation and Weeding

Cropping Sequence

Pests and Diseases

Manures and Fertilizers

Harvesting

Collection of Seeds

Yield

Drying and Storage

Distillation

Yield and Characteristics of the Oil

Uses

Specification of the Drug

4. KALMEGH, ANDROGRAPHIS PANICULATA CULTIVATION

INTRODUCTION

Description of the Plant

Genetic Improvement

CULTIVATION

Climate

Soil

Propagation

Transplanting

Manure and Fertilizer

Irrigation

Interculture

Harvesting

Diseases and Pests

Hemical Constituents

Uses

5. CORIANDER CULTIVATION

INTRODUCTION

Description of the Plant

CULTIVATION

Soil and Climate

Propagation

Irrigation

Harvesting

Pests and Diseases

Distillation

Yield

Chemical Constituents

Uses

6. BHUMYAMALAKI PHYLLANTHUS AMARUS CULTIVATION

INTRODUCTION

Description of the Plant

CULTIVATION

Soil and Climate

Propagation

Transplanting

Weed Control

Fertilizers and Manures

Irrigation

Harvesting

Cultivar

Chemistry

Extraction

Traditional Medicinal Uses

Pharmacology/Clinical Trials

Drug Preparations from *P. Amarus* Available in Markets

7. QUINGHAOSU ARTAMISIA ANNUA CULTIVATION

Introduction

Description of the Plant

Soil and Climate

Propagation

Weed Control

Fertilizers and Manures

Harvesting

Chemistry and Uses

Distillation

8. ERGOT CULTIVATION

INTRODUCTION

History

The Ergot Fungus

Cultivation

Ergot Alkaloids

Uses

9. BELLADONNA CULTIVATION

INTRODUCTION

Description of the Plant

Distribution

CULTIVATION

Soil and Climate

Raising of Nursery

Fertilizer Application

Irrigation

Interculture
Harvesting and Drying
Disease and Pests
Chemical Constituents
Uses

10. SOUTH AMERICAN MARIGOLD (TAGETES MINUTA)

INTRODUCTION

Botanical Description of the Plant

Genetic Improvement

Agrotechnology

Soil and Climate

Propagation

Weed Control

Fertilizers and Manures

Intercropping

Irrigation

Harvesting

Crop Rotations

Diseases

Uses

Distillation

Chemistry

Distillation Unit Design Available

11. EUCALYPTUS CITRIODORA CULTIVATION

INTRODUCTION

Description of the Plant

CULTIVATION

Soil and Climate

Preparation of Land

Propagation

Nursery

Transplanting

Weeding

Manures and Fertilizers

Harvesting

Pest and Diseases

Distillation

Yield

Chemical Constituents

Use

12. ROSEMARY CULTIVATION

Introduction

Description of the Plant

CULTIVATION

Soil and Climate

Propagation

Transplanting, Interculture and Fertilizer Application 105

Irrigation

Harvesting

Pests and Diseases and their control

Distillation

Oil content and Yield

Chemical Constituents

Uses

13. DUBOISIA CULTIVATION

INTRODUCTION

Botany

Soil and Climate

Cultivation

Preparation of Land

Raising the Nursery

Transplanting

Irrigation

Fertilizers Application

Pests and Diseases

Harvesting

Yield

Active Constituents and Uses

14. MANDOOKPARNI-GUTUKOLA CENTELLA ASIATICA

CULTIVATION

INTRODUCTION

Botanical Description

CULTIVATION

Land Preparation

Varieties

Planting

Fertilizer

Irrigation

Weed Control

Harvesting

Post Harvest Processing

Yield

Chemistry

Uses

15. SAPOGENIN BEARING SPECIES OF YAMS AND THEIR

CULTIVATION

INTRODUCTION

Botany

Soil and Climate

Propagation

Propagation by Seeds

Propagation by stem cutting

Propagation from tuber pieces

Field Preparation and Planting

Provision of Support

Interculture

Fertiliser Application

Irrigation

Pests and Diseases

Harvesting

Chemistry & Uses

16. PERIWINKLE CULTIVATION

INTRODUCTION

Description of the Plant

Soil and Climate

Propagation

Manure and Fertilizers

Weeding

Irrigation

Harvesting

Yield

Pests and Diseases

Active Constituents and Uses

17. SENNA (CASSIA ANGUSTIFOLIA) CULTIVATION

INTRODUCTION

Description of the Plant

Improved Varieties

Soil

Climate

Land Preparation

Sowing

Manuring and Fertilization

Irrigation

Weeding and Interculture Operations

Harvesting

Yield

Pest and Diseases

Active Constituent and Uses

Extraction of Sennosides

18. Cultivation of Lentinus Edodes-An Important Medicinal

Mushroom

Cultivation

Materials and Substrates

Diseases, Pests and Control

19. CULTIVATION OF KAEMPFERIA GALANGA L.

INTRODUCTION

Botany

Crop Improvement

Crop Management

Extraction of Essential Oil

Physico-Chemical Properties of Oil

Utilisation

20. CULTIVATION OF SWEET MARJORAM

INTRODUCTION

Floristics and Crop Improvement

Floristics

Ex. Dittany

Studies on Floral Biology

Flowering Anthesis and Pollen Studies

Crop Improvement

Evaluation of Germplasm

Crop Production and Management

Soil and Climate

Propagation

Nursery Raising

Vegetative Propagation

Studies on Nutrient and Spacing

Use of Growth Regulators

Crop Rotation/Sequencing and intercrops

Irrigation and Interculture
Insect Pests and Diseases
Harvesting Production of Essential Oil and Yield
Chemistry of Oil
Influence of Harvesting stage on the odour values of essential oil
Production of Essential Oil
Yield

21 CULTIVATION OF MATRICARIA CHAMOMILLA

INTRODUCTION

Uses
Soil and Climate Requirements
Cultivation
Botanical Characters
Propagation
Crop Growth
Irrigation
Manures and Fertilizers
Weed Control
Harvesting
Fresh Flower and Oil Yield
Seed Collection and Storage
Drying Fresh Flowers
Distillation
Effect of Growth Regulators
Diseases and Pests
Chemical Composition
Chamomilla Waste
Ray and Disc Florets
Roots of Matricaria Chamomilla
Analytical Methods

22 CULTIVATION OF SPICES

INTRODUCTION

Black Pepper
Climate
Soil
Vareties
Production of Rooted Cutting
Cultural Practices
Standards
Planting
Under Planting
Soil Fertility and Nutrient Management
Irrigation
Inter-and Mixed-Cropping
Bush Pepper
Diseases
Pests
Harvesting
Cardamom
Varieties
Propagation
Nursery
Mainfield Planting

Diseases
Pests
Cloves
Climate and Soil
Varieties
Planting Material
Planting
Manuring
Diseases
Pests
Nutmeg
Cultural Practices
Manuring
Diseases
Pests
Cinnamon
Cultural Practices
Manuring and Processing
Diseases
Pests
Ginger
Varieties
Cultural Practices
Diseases
Pests
Turmeric
Varieties
Cultural Practices
Diseases
Pests

23 PLANTAGO OVATA FORSK. CULTIVATION

Cultivation
Plant Morphology
Chromosome Complement
Breeding System
Diseases
Processing
Chemical Constituents and Characteristics of the Seed
Utility
Toxicity
Improvement
Wild Allies

24 PYRETHRUM CULTIVATION

INTRODUCTION
Description of the Plant
CULTIVATION
Soil and Climate
Preparation of Field
Raising of Nursery
Fertilizer Application
Interculture
Irrigation
Harvesting and Drying

Yield

Uses

25 FRENCH BASIL CULTIVATION

INTRODUCTION

European Type

Reunion Type

Methyl Cinnamate Type

Eugenol Type

Botany

Soil and Climate

Field Preparation

Propagation

Raising of Nursery

Planting

Irrigation

Fertilizer Application

Interculture

Harvesting and Yield

Distillation

Diseases and Pests

Active Constituents and Uses

26 PALMAROLSA CULTIVATION

INTRODUCTION

Botany

Soil and Climatic Conditions

Propagation

Transplantation of Seedlingd

By Slips

Irrigation

Weeding

Fertilizers

Harvesting

Distillation

Oil Content and Yield

Chemical Constitutents and Uses

27 JAVA CITRONELLA CULTIVATION

INTRODUCTION

Botany

Soil and Climate

Preparation of Land

Propagation

Fertiliser Application

Interculture

Irrigation

Harvesting

Distillation

Oil Content and Oil Yield

Diseases and Pests

Chemical Constituents and Uses

29 PATCHOULI CULTIVATION

INTRODUCTION

Botany

Soil and Climate

Cultivation
Preparation
Raising the Nursery
Transplanting
Irrigation
Fertiliser Application
Interculture
Pests and Diseases
Root-Knot
Leaf Blight
Harvesting
Drying
Distillation
Oil Content and Oil Yield
Storage
Chemical Constituents
Uses

29 CULTIVATION OF DAVANA

INTRODUCTION

Description

Description of the Plant

Soil and Climate

Nursery

Transplanting, Irrigation and Weeding

Manures and Fertilizers

Harvesting

Pests and Diseases

Distillation 281

Oil Content and Yield

Chemical Constituents and Uses

30 CULTIVATION AND UTILIZATION OF AMMI MAJUS

Description fo the Plant

Harvesting

Yield

Pests and Diseases

Extraction of Xanthotoxin

Essential Oil

Uses

31 ROSE CULTIVATION

INTRODUCTION

Description

CULTIVATION

Climate

Soil

Propagation

Transplanting

Subtropical Region

Temperate Region

Fertilizer Application

Subtropical Region

Temperate Region

Irrigation

Pruning

Interculture
Harvesting
Diseases and Pests
Distillation
Chemistry of the Oil
Uses

32 CULTIVATION OF GERANIUM

INTRODUCTION

Description of the Plant
Soil and Climate
Propagation
Transplanting, Irrigation and Weeding
Manures and Fertilizers
Intercropping
Harvesting
Pests and Diseases
Distillation
Oil Content and Yield
Chemical Constituents and Uses

33 CULTIVATION OF MUSK DANA

Description of the Plant

Cytology
Climate
Soil
Seed Sowing
Fertilizers
Irrigation
Weeding
Harvesting
Pests and Diseases
Leaf Hooper (*Amrasca biguttula*)
Leaf Roller (*Sylepta derogata* Feb.)
Spotted Ball Worm (*Erias fobia* Stoll/*Erias vittella* (F))
Thrips
Uses

Distillation & Separation of Aromatic Principales
Properties of Essential Oil

34 CULTIVATION OF POGOSTEMON

PATCHOULI FOR ITS OIL

Botany
Soil and Climate
CULTIVATION
Preparation of Land
Propagation and Transplanting
Irrigation
Fertilizers Application
Harvesting
Drying
Distillation
Oil Yield
Physicochemical Properties of the Oil
Physiological Studies
Diseases and Pests

Uses

Adulterants

35 CULTIVATION OF PODOPHYLLUM HEXANDRUM

INTRODUCTION

Distribution and Habitat

Parts Used

Therapeutic Uses

Botanical Description

Seed Germination and Development of Seedlings

Germination is Epigealous

Cultivation

Recommended Cultural Practices

Climate

Soil

Propagation

Manures and Fertilizers

Irrigation

Interculture

Harvesting and Processing

Expected Yield

Chemical Constituents and Demand in the World Market 332

Future Strategies

36 CULTIVATION OF HYOSCYAMUS

Distribution

Botany

Cytology and Genetics

Soil and Climate

Cultivation

Propagation

Transplanting

Irrigation

Fertilizer Application

Harvesting, Drying and Storage

Physiological Studies

Tissuecultures Studies

Constituents

Diseases and Pests

Uses

Adulterants

37 CULTIVATION LIQUORICE (GLYCYRRHIZA GLABRA L.)

Soil and Climate Requirements

Preparation of Land

Propagation

Harvesting

Regeneration

Interplantation

Yield

In Vitro Multiplication

Diseases and Pests

Flowering and Seed Setting

Cytogenetical Studies

Quality and Specification

Substitutes

Important Chemical Constituents of Liquorice

Processing

38 CULTIVATION OF BRAHMI BACOPA MONNIERI

INTRODUCTION

Plant Description

CULTIVATION

Soil and Climate

Land Preparation

Varieties

Transplanting

Fertilizer

Irrigation

Weed Control

Pest

Harvesting

Post Harvest Technology

Yield

Chemistry

Uses

39 LAVENDER CULTIVATION

INTRODUCTION

Botany

Soil and Climate

Propagation

Propagation by Seeds

Propagation Through Vegetative Means

Transplantation

Fertilizers Application

Weeding

Regeneration

Harvesting

Distillation

Oil Content and Oil Yield

Chemical Constituents

Uses

40 ASHWAGANDHA (WITHANIA SOMNIFERA)

CULTIVATION

INTRODUCTION

Description of the Plant

Cultivars

CULTIVATION

Soil and Climate

Land Preparation

Seed Rate and Sowing

Thinning and weeding

Irrigation

Crop Protection

Harvesting

Post Harvest Technology

Yield

Chemistry

Uses

41 LEMONGRASS CULTIVATION

Method of Lemongrass Cultivation
Preparation of Land
Need of Manure
Seeds for Sowing Lemongrass or Planting Material
Time of Sowing
Method of Sowing
Need of Irrigation
Need of Roeing and Weeding
Reaping of Crop
Oil Extraction from Leaves
Various Species/Kinds of Lemongrass
Profits from Lemongrass Cultivation
Where to Contact for Selling of Lemongrass Oil
42 Menthol Mint Cultivation
Present Situation
Various Species of Menthol Mint:
Preparation of Field for sowing Mentha
Method of Sowing Mentha
Irrigation
Manure and Fertilizer
Control
Method of Cropping
Cutting of Crops
Main Insects Causing Damage to Mentha Crop
Production of Oil from Mentha Leaves
Future of Mentha Oil
Present Market Situation of Mentha Industry
and its future Possibilities
The Supplirs of Mentha Seeds
Machinery/Equipment for mentha
43 PRODUCTION OF OIL FROM CITRONELLA GRASS
Agriculture Technique for Cultivation of Citronella
Preparation of Land
Planting Material/Seeds for Citronella Cultivation
Method of Sowing
Main Species of Citronella
Need of Water for Citronella Crop
Main Diseases & Insects in Citronella Crop
Reaping of Crops
Distillation of Leaves
Profit Obtained from Citronella Crop
Obtainging Planting Material
Palmrose or Rosegrass
44 A ROLE OF PERFUMER IN INDUSTRY
45 ADVANCES IN THE ANALYSIS OF ESSENTIAL OILS
AND FLAVOURS
Gas Liquid Chromatography
Capillary and Chiral Gas Chromatography
Preparative Gas Chromatography
Column Chromatography
Thin Layer Chromatography
Supercritical Fluid Extraction (SFE)/Fractionation
/SFF)/Chromatography (SFC)

Techniques Ancillary to Gas Chromatography
Identification Techniques
Retention Indices
Mass Spectrometry
Multidimensional GC-MS
HRGC-FTIR
High Pressure Liquid Chromatography
Chemical Transformation
Techniques Ancillary to Liquid Chromatography
Ultra Violet and Infra Red Spectroscopy
Nuclear Magnetic Resonance
Detection of Synthetics in Natural Oils by Isotopes Analysis
Isotope Analysis by MS
Isotope Analysis by NMR
Intelligent Sensor Technology
46 UTILIZATION OF LIGNO-CELLULOSIC
WASTE OF ESSENTIAL OIL INDUSTRY
Cymbopogon Marc
Mentha Marc
Utilisation of Woody Stems of Eucalyptus Citriodora
47 RECENT DEVELOPMENTS OF SOME
NATURAL PRODUCTS
Monoterpene Iridoids
Valtrats
Saponins
Sataver
Centella Asiatica
Horse Chestnut
Sterols
Sitosterol (Beta-Sitosterols)
Guggul
Cardenolides
Asclepias Curassavica
Pueraria Tuberosa
ALDALOIDS FLAVONOIDS
Aristolochia Indica
Silybum Marianum
Gingko Biliba
Adhatoda Vasica
MISCELLANEOUS
Allium Cepa (Onion)
ADAPTOGENS
Ginseng
Withania Somnifera (Ashwagandha)
Titnospora Cordifolia (Guduchi Giloe)
ANTICANCER DRUGS
Vinca Alkaloids
Podophyllotoxin
Maytansinoids
Ellipticine
Gossypol
Taxol
Camptothecins

Bryostanins
Acetogenins
ANTI-AIDS AGENTS
Castanospermine
Hypericin
Carnosolic Acid
Forskolin
Artemisinin (Quinghaosu)
Echinacea Species
48 PRODUCTION OF SECONDARY METABOLITES IN
PLANT TISSUE CULTURE
Biotransformation or Precursor Feeding
Immobilization of Plant Cells
Elicitation
Induction of Hairy Roots Using
Agrobacterium Rhizogenes
Use of Tools of Molecular Biology
Concluding Remarks

About NIIR

NIIR PROJECT CONSULTANCY SERVICES (NPCS) is a reliable name in the industrial world for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our various services are: Detailed Project Report, Business Plan for Manufacturing Plant, Start-up Ideas, Business Ideas for Entrepreneurs, Start up Business Opportunities, entrepreneurship projects, Successful Business Plan, Industry Trends, Market Research, Manufacturing Process, Machinery, Raw Materials, project report, Cost and Revenue, Pre-feasibility study for Profitable Manufacturing Business, Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Business Opportunities, Investment Opportunities for Most Profitable Business in India, Manufacturing Business Ideas, Preparation of Project Profile, Pre-Investment and Pre-Feasibility Study, Market Research Study, Preparation of Techno-Economic Feasibility Report, Identification and Section of Plant, Process, Equipment, General Guidance, Startup Help, Technical and Commercial Counseling for setting up new industrial project and Most Profitable Small Scale Business.

NPCS also publishes various process technology, technical, reference, self employment and startup books, directory, business and industry database, bankable detailed project report, market research report on various industries, small scale industry and profit making business. Besides being used by manufacturers, industrialists and entrepreneurs, our publications are also used by professionals including project engineers, information services bureau, consultants and project consultancy firms as one of the input in their research.

Our Detailed Project report aims at providing all the critical data required by any entrepreneur vying to venture into Project. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

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

Thu, 13 Feb 2025 05:50:19 +0000