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# The Complete Book on Spices & Condiments (with Cultivation, Processing & Uses) 2nd Revised Edition

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## **Description**

The term spices and condiments applies to such natural plant or vegetable products and mixtures thereof, used in whole or ground form, mainly for imparting flavor, aroma and piquancy to foods and also for seasoning of foods beverages like soups. Usually spices are an ingredient used to season a dish in the meal during its preparation and condiments are for using at the table to enhance the dish as each individual's tastes prefer. The great mystery and beauty of spices is their use, blending and ability to change and enhance the character of food. Spices and condiments have a special significance in various ways in human life because of its specific flavours, taste, and aroma. Spices and condiments play an important role in the national economies of several spice producing, importing and exporting countries. India is one of the major spice producing and exporting countries. Most of the spices and herbs have active principles in them and development of these through pharmacological and preclinical and clinical screening would mean expansion of considerable opportunities for successful commercialization of the product. Spices can be used to create these health promoting products. The active components in the spices phthalides, polyacetylenes, phenolic acids, flavanoids, coumarines, triterpenoids, serols and monoterpenes are powerful tools for promoting physical and emotional wellness.

Some of the fundamentals of the book are definition of spices and condiments nomenclature or classification of spices and condiments, Indian central spices and cashew nut committee, origin, properties and uses of spices, forms, functions and applications of spices, trends in the world of spices, yield and nutrient uptake by some spice crops grown in sodic soil, tissue culture and in vitro conservation of spices, in vitro responses of piper species on activated charcoal supplemented media, soil agro

climatic planning for sustainable spices production, potentials of biotechnology in the improvement of spice crops, medicinal applications of spices and herbs, medicinal properties and uses of seed spices, effect of soil solarization on chillies, spice oil and oleoresin from fresh/dry spices etc.

The present book contains cultivation, processing and uses of various spices and condiments, along with photographs of machinery/equipments with addresses of their manufacturers. The book is an invaluable resource for new entrepreneurs, agriculturists, agriculture universities and technocrats.

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Drying of Fruits (Berries)

Grading

Composition of Juniper Berries/Fruits

Adulteration

Juniper Berry Essential Oil (Volatile Oil)

Composition of Juniper Volatile Oil

Manufacturing Alcoholic Beverages

As Food and Food Flavourant

Juniper Oil

Other Parts of the Tree

In Medicine

Volatile Oil

Juniper Wood

Other Uses/by-Products

Exhausted Fruits/Berries

**Juniper Needles** 

Roots Wood Juniper Wood Oil Mace and Nutmeg **Indian Names** Mace **Indian Names Description and Distribution** Crop Management Climate and Soil Propagation by Nursery Technique Transplanting of Seedlings in the Field Mixed Cropping Manuring Mulching Interculture/Weeding Plant Protection Constraints in Nutmeg Cultivation Crop Improvement Sex Determination-Past, Present and Future Harvesting and Curing Yield **Economics of Cultivation** Central and State Govt Incentives for Production and Marketing Post-Harvest Technology Packaging of Mace and Nutmeg Grading Quality/Composition of Mace and Nutmeg **Processed Products Mace Products Nutmeg Products** Variations in Aroma/Flavour of Nutmeg and Mace Accessions Nutmeg Mace 37. PIMENTO OR ALLSPICE OR PIMENTA

**Indian Names** 

**Description and Distribution** 

Description

Distribution

Area, Production and Exports/Imports

Crop Management

Soil and Climate

Propagation

Transplanting of Seedlings

Weeding/After-Care

Aftercare: Fertilizer Schedule

Manuring

Successful Fruiting in Allspice-A Recent Achievement of NRCS (IISR, Calicut .)

Harvesting and Yield

Major Types of Allspice (Pimento)

Crop Improvement Strategy or Breeding Strategy

Yield of Berries

Plant Protection

Post-Harvest Technology

Grades/Types

The ISO Grades of Pimento (Whole and Ground)

Physical Requirements for Whole Pimento

Chemical Requirements of Whole Pimento

Storage of Pimento

Transport of Pimento

Composition

Packaging and Storage

**Processed Products** 

Pimenta Berry Oil

Pimenta-leaf Oil

Pimenta Oleoresin and Oil

As Food Flavourant

Use in Medicine

Berry Oil

Leaves

Pimenta Bark and Wood

A. Star-Anise

**Indian Names** 

Description and Distribution

Area and Production

Crop Management

Soil and Climate

Propagation

Raising Nursery and Transplanting

Weeding

After-care Mulching

Manuring and Fertilization

Maturation and Flowering

Fruit Development

Harvesting of Fruits

Yield of Fruit

Post-Harvest Technology

Drying of Fruit

**Processing Technology and Procucts** 

Manufacturing Essential Oil

Native vs Modern Distillation of Oil

Yield of Oil

Quality of Star-anise Oil

Quality Grading of Star-anise Oil

Leaf Oil

Fatty Oil

Star-anise as Flavourant

In Medicine

Star-anise Oil

B. Japanese star-Anise

Description and Distribution

Area, Production and Exports

Crop Management

Post-Harvest Technology

**Processing Technology** 

38. BALM OR LEMON BALM

**Indian Names** 

Description and Distribution

Crop Management

Soil and Climate

Propagation

**Cultural Practices** 

Harvesting

Yield

Post-Harvest Technology

**Processing Technology** 

Manufacturing Essential Oil

Physico-chemical Properties of Oil

As Food Flavourant

In Medicine

Basil or Sweet Basil (Tulsi)

**Indian Names** 

Description and Distribution

Major Types of Basil

American Basil

Area, Production and Exports

Crop Management

**Varieties** 

Soil and Climate

**Breeding** 

Propagation

Plant Protection

Harvesting

Yield

Post-Harvest Technology

Packaging and Storage

Composition

**Processed Products** 

Distillation of Oil

As Food Flavourant

In Perfumery and Cosmetics

In Medicine

As Insecticide, Insect-Repellent and Bactericidal

Use of Basil Seeds

Bay or Laurel Leaves

**Indian Names** 

**Description and Distribution** 

Post-Harvest Technology

Drying

Composition

**Processing Technology** 

Essential Oil Recovery

Physico-chemical Properties of Volatile Oil

Bay Leaves for Flavouring

Fat from Bay or Laurel Berries

Laurel Wood Utilization

39. CURRY LEAF

**Indian Names** 

**Description and Distribution** 

Area, Production

Crop Management

Curry Leaf Cultivation in Homesteads of South Kerala

Raising Nursery

Manuring

Harvesting

Weeding

Prophylactic Measures for Plant Protection

Cost of Cultivation

Cultivars and their Sensitivity to Winter Temperature

Plant Protection

**Termites** 

Post-Harvest Technology

Packing and Storage

Composition

**Processed Products** 

Volatile Oil

**Dehydrated Curry Leaves** 

As Food Flavourant

In Indigenous Medicine

In Perfume and Cosmetics

Fruits

Wood

Hyssop

**Description and Distribution** 

Area, Production and Exports

Crop Management

Soil and Climate

Planting and Cultivation

Harvesting

Yield

Post-Harvest Technology

Composition

**Processing Technology** 

Distillation of Essential Oil

Yield of Essential Oil

Physico-chemical Properties of Volatile Oil

As Condiment

In Medicine

Volatile Oil Uses

Marjoram

**Indian Names** 

Description and Distribution

Crop Management

Soil and Climate

Propagation

Influence of Growth Regulators on Growth, Herbage and Essential Oil Yields

Harvesting

Flowering

Post-Harvest Technology

Drying, Packing and Storage

Composition

**Processed Products** 

Volatile Oil

As Food Flavourant

In Perfumery and Cosmetics

In Medicine

40. PEPPERMINT

**Indian Names** 

Description and Distribution

Crop Management

**Processed Procuts** 

Volatile Oil

In Medicine/Pharmaceuticals

Waste Utilization

Spearmint

**Indian Names** 

**Description and Distribution** 

Crop Management

Important Steps in its Successful Cultivation in India

Composition

**Processed Procucts** 

Volatile Oil

Origanum

**Indian Names** 

Description and Distribution

Crop Management

Soil and Climate

Propagation

Sowing

After-care

Harvesting

Post-Harvest Technology

Drying

Composition

**Processed Products** 

Volatile Oil

As Food Flavourant

In Medicine

Other Uses

**Parsley** 

**Indian Names** 

**Description and Distribution** 

Area, Production and Trade

Crop Management

Climate and Soil

Direct Sowing/Sowing in Nursery Beds

Transplanting of Seedlings

Manuring/Fertilizers

Harvesting

Yield

Post-Harvest Technology

Composition

**Processed Products** 

**Dehydrated Parsley** 

Volatile Oil

Fatty Oil

As Food Flavourant

In Medicine

41. ROSEMARY

**Indian Names** 

**Description and Distribution** 

Crop Management

Climate and Soil

Propagation

Planting

Harvesting

Yield

Post-Harvest Technology

**Drying and Packing** 

Composition

**Processed Products** 

Volatile Oil

As Food Flavourant

In Perfumery and Cosmetics

In Medicine

Sage

Indian Name

Description and Distribution

Major Types of Sage in World Trade

Different Forms of Sage

Crop Management

Climate and Soil

Propagation

**Planting** 

Harvesting

Yield

Post-Harvest Technology

Drying

Composition

Marketing/Trading

How to Handle and Store

**Processed Products** 

Volatile Oil

As Food Flavourant

In Medicine

Use in Perfumery

As Anti-oxidant

Use of Residue

Uses of Seeds

Clary Sage (Salvia sclarea Linn.) or Garden Sage

Introduction

Savory

**Indian Names** 

Description and Distribution

Area, Production and Exports

Crop Management

Soil and Climate

Propagation

Seed Rate, Method of Sowing and Weeding

Harvesting

Yield

Post-Harvest Technology

**Processing Technology** 

**Essential Oil of Savory** 

Composition of Dried Herb

Composition of Fresh Herb

Volatile Oil

Tarragou

**Indian Names** 

Description and Distribution

Crop Management

Soil and Climate

Propagation

Planting Season

Harvesting

Post-Harvest Technology

Composition

**Processing Technology** 

**Essential Oil** 

Physico-chemical Properties of Oil

Precautions in the Storage of Oil

As Food Flavourant

In Medicine

In Perfumery

**Thyme** 

**Indian Names** 

**Description and Distribution** 

Major Types of Thyme

Crop Management

Climate and Soil

Propagation

Post-Harvest Technology

Commercial Quality

Composition

Handling and Storage of Thyme

**Processed Products** 

Thyme Extractives-Volatile Oil and Oleoresin

Thymol

As Food Flavourant

In Medicine

#### 42. ASAFOETIDA OR ASAFETIDA

**Indian Names** 

**Description and Distribution** 

Types or Varieties of Asafoetida Imported into India

Method of Collection of Gum-resin

Crop Management

Varieties of Asafoetida

Types/Varieties of Asafoetida of Commerce

**Quality Evaluation** 

Composition

**Processed Products** 

Oil of Asafoetida

Oil of Galabanum

Compounded Asafoetida Powder and Tablets: A Simple CFTRI Process

As Food Flavourant

In Medicine

Calamus or Sweet Flag

**Indian Names** 

Description and Distribution

Crop Management

Climate and Soil Requirements

Preparation of Land

Planting Method

Planting Time

**Irrigation** 

Weeding

Manuring

Harvesting

Yield

Plant Protection

Post-Harvest Technology

Preparation for the Market

Adulteration

Composition

**Processed Products** 

Volatile Oil

In Medicine

In Perfumery

As an Insecticide

In Foods Beverages and Liquors

43. GALANGAL

**Description and Distribution** 

**Economic Importance** 

Crop Management

Varieties/Races of Galangal

**Planting** 

Plant Protection

Application of Manures/Fertilizers

Harvesting

Yield

Post-Harvest Technology

Composition

Volatile Oil

Oleoresin Content

Galangal Rhizomes

Galangal Oil

Galangal Oleoresin

Horse-Radish

**Description and Distribution** 

Crop Management

Post-Harvest Processing Technology

Volatile Oil

Composition of Horse-radish

Adulteration

As Condiment

Horse-Radish Cream, Sauce or Relish

In Medicine

Long Pepper or Pipli

**Indian Names** 

**Description and Distribution** 

Crop Management

Soil and Climate

Propagation

Manuring

Harvesting

Yield

Plant Protection

Post-Harvest Technology

Drying and Packaging.

Composition

**Processed Products** 

Volatile Oil

As Food Flavourant

In Medicine

44. SAFFRON

**Indian Names** 

**Description and Distribution** 

Crop Management

Soil

Climate

Land Preparation and Planting

Manures and Fertilizers

Irrigation

Interculture

Crop Rotation

Effect of Plant Density on Flower, Yield and Corm Production

Variation in Floral Characteristics of Saffron in different Kashmir Locations

Harvesting or Picking of Flowers and obtaining Saffron

Yield

Cost of Cultivation of Saffron

**Economic Viability of Saffron Cultivation** 

Pests and Diseases

Recent Studies on Crop Management of Saffron in Iran

Effect of Fertilizers (NPK)

Post-Harvest Technology

Sun-Drying of Saffron in Kashmir

Effect of Different Processing (Different Drying and Dehydration Techniques)

Composition

Adulteration

Packaging and Storage

Marketing

**Processed Products** 

As Flavourant and Colourant for Foods

**Medicinal Properties** 

45. VANILLA

**Indian Names** 

Description and Distribution

Commercial Forms of Vanilla

General Characteristics of Vanilla Forms

**Oualitative Classification of Vanilla Pods** 

Crop Management

Climate

Soil

Preparation of Land

Providing Supports (Posts) for Vines

**Planting** 

Manuring

After-care

Flowering and Natural Pollination

Hand-pollination

Pod Development

Vanilla Production Plan by Tissue-Culture Technique

Vegetative Propagation of Vanilla

Yield

Plant Protection

Diseases

Post-Harvest Technology

Curing

Vanilla Bean Packing and Storage

Composition

Adulteration/Substitution

**Processed Products** 

Vanilla Extracts/Essences

Vanilla Sugar

Vanilla Oleoresin

Vanilla powder, Vanilla absolute and Vanilla Tincture

As Food Flavourant and in Perfumery

Vanillin

#### 46. Machinery & Equipments

## **About NIIR Project Consultancy Services (NPCS)**

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