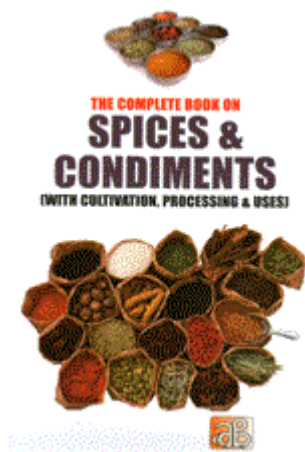


# The Complete Book on Spices & Condiments (with Cultivation, Processing & Uses) 2nd Revised Edition



**Author:** NIIR Board of Consultants & Engineers

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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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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  
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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  
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Composition  
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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  
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Crop Management  
Curry Leaf Cultivation in Homesteads of South Kerala  
Raising Nursery  
Manuring  
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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  
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Distillation of Essential Oil  
Yield of Essential Oil  
Physico-chemical Properties of Volatile Oil  
As Condiment  
In Medicine  
Volatile Oil Uses  
Marjoram  
Indian Names  
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Influence of Growth Regulators on Growth, Herbage and Essential Oil Yields  
Harvesting  
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Drying, Packing and Storage  
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Volatile Oil  
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40. PEPPERMINT  
Indian Names  
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Processed Procucts  
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In Medicine/Pharmaceuticals  
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Spearmint  
Indian Names  
Description and Distribution  
Crop Management  
Important Steps in its Successful Cultivation in India  
Composition  
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Origanum  
Indian Names  
Description and Distribution  
Crop Management  
Soil and Climate  
Propagation  
Sowing  
After-care  
Harvesting  
Post-Harvest Technology  
Drying  
Composition  
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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  
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Processed Products  
Dehydrated Parsley  
Volatile Oil  
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As Food Flavourant  
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41. ROSEMARY  
Indian Names  
Description and Distribution  
Crop Management  
Climate and Soil

Propagation  
Planting  
Harvesting  
Yield  
Post-Harvest Technology  
Drying and Packing  
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Indian Name  
Description and Distribution  
Major Types of Sage in World Trade  
Different Forms of Sage  
Crop Management  
Climate and Soil  
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Harvesting  
Yield  
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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  
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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  
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Essential Oil  
Physico-chemical Properties of Oil  
Precautions in the Storage of Oil  
As Food Flavourant  
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In Perfumery  
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Indian Names  
Description and Distribution  
Major Types of Thyme  
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Climate and Soil  
Propagation  
Post-Harvest Technology  
Commercial Quality  
Composition  
Handling and Storage of Thyme  
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Thyme Extractives-Volatile Oil and Oleoresin  
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42. ASAFOETIDA OR ASAFETIDA  
Indian Names  
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Method of Collection of Gum-resin  
Crop Management  
Varieties of Asafoetida  
Types/Varieties of Asafoetida of Commerce  
Quality Evaluation  
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Oil of Asafoetida  
Oil of Galabanum  
Compounded Asafoetida Powder and Tablets : A Simple CFTRI Process  
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Indian Names  
Description and Distribution

Crop Management  
Climate and Soil Requirements  
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Planting Time  
Irrigation  
Weeding  
Manuring  
Harvesting  
Yield  
Plant Protection  
Post-Harvest Technology  
Preparation for the Market  
Adulteration  
Composition  
Processed Products  
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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  
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Yield  
Post-Harvest Technology  
Composition  
Volatile Oil  
Oleoresin Content  
Galangal Rhizomes  
Galangal Oil  
Galangal Oleoresin  
Horse-Radish  
Description and Distribution  
Crop Management  
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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  
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Post-Harvest Technology  
Drying and Packaging.  
Composition  
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44. SAFFRON  
Indian Names  
Description and Distribution  
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Soil  
Climate  
Land Preparation and Planting  
Manures and Fertilizers  
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Crop Rotation  
Effect of Plant Density on Flower, Yield and Corm Production  
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Harvesting or Picking of Flowers and obtaining Saffron  
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Cost of Cultivation of Saffron  
Economic Viability of Saffron Cultivation  
Pests and Diseases  
Recent Studies on Crop Management of Saffron in Iran  
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Sun-Drying of Saffron in Kashmir  
Effect of Different Processing (Different Drying and Dehydration Techniques)  
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Indian Names  
Description and Distribution  
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General Characteristics of Vanilla Forms  
Qualitative Classification of Vanilla Pods  
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Flowering and Natural Pollination  
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Pod Development  
Vanilla Production Plan by Tissue-Culture Technique  
Vegetative Propagation of Vanilla  
Yield  
Plant Protection  
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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

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**NIIR PROJECT CONSULTANCY SERVICES** , 106-E, Kamla Nagar, New Delhi-110007, India. **Email:** [npcs.india@gmail.com](mailto:npcs.india@gmail.com) **Website:** [NIIR.org](http://NIIR.org)

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