

# Fruits, Vegetables, Corn and Oilseeds Processing Handbook

**Author:-** H. Panda

**Format:** paperback

**Code:** NI226

**Pages:** 592

**Price:** Rs.1675US\$ 150

**Publisher:** NIIR PROJECT CONSULTANCY SERVICES

Usually ships within 5 days

Fruits & vegetables are an important nutritional requirement of human beings as these foods not only meet the quantitative needs to some extent but also supply vitamins & minerals which improve the quality of the diet & maintain health. Fruit, vegetables & oil seeds processing is one of the pillars of the food & edible oil industry. India is the second largest producer of both fruits and vegetables. Fruits and vegetables are the reservoir of vital nutrients. Being highly perishable, 20 to 40% of the total production of fruits and vegetables goes waste from the time of harvesting till they reach the consumers. It is, therefore, necessary to make them available for consumption throughout the year in processed or preserved form and to save the sizeable amount of losses. At present, about 2% of the total produce is processed in India mainly for domestic consumption. Fruits and vegetables have great potential for value addition and diversification to give a boost to food industry, create employment opportunities and give better returns to the farmers. Oil seeds also play an important role in the food sector & daily life. Edible oils constitute an important component of Indian households. Domestic edible oil consumption in India is increasing. Self sufficiency in edible oils today stands at in recent years, availabilities of non conventional oil, rice bran oil, soybean oil, palmolein oil and cottonseed have increased. Oils are essential components of all plants. However, commercial oil production facilities only utilize plants that accumulate large amounts of oil and are readily available. In order to improve the nutritional status of the people & also to exploit the export potential of processed products there is need to increase the productivity of processed food in the country. Currently, India accounts for 7.0% of world oilseeds output; 7.0% of world oil meal production; 6.0% of world oil meal export; 6.0% of world veg. oil production; 14% of world veg. oil import; and 10 % of the world edible oil consumption.

Some of the fundamentals of the book are preservation of pineapple, mango and papaya chunks by hurdle technology, effect of boiling on beta-carotene content of forest green leafy vegetables consumed by tribals of south India, process development for production of pure apple juice in natural colour of choice, physical refining of rice bran and soybean oils, anti nutrients and protein digestibility of fababean and ricebean as affected by soaking, dehulling and germination, quality changes in banana (*musa acuminata*) wines on adding pectolase and passion fruit, essential oil composition of fresh and osmotically dehydrated galgal peels, development of cold grinding process, packaging and storage of cumin powder, bakery products and confections, etc.

This book deals completely on the basic principles & methodology of fruits, vegetables, corn & oilseed processing & its preservation. This will be very resourceful to readers especially to technocrats, engineers, upcoming entrepreneurs, scientists, food technologists etc.

## CONTENTS

Chapter 1 : Preservation of Pineapple, Mango and Papaya Chunks by Hurdle Technology

Chapter 2 : Process Development for Production of Pure Apple Juice in Natural Colour of Choice

Chapter 3 : Anthocyanins from Indian Varieties of Grapes

Chapter 4 : Processing Effect on Colour and Vitamins of Green Leafy Vegetables

Chapter 5 : Dissipation of Alphametherin Residues in/on Brinjal and Tomato During Storage and Processing Conditions

Chapter 6 : Effect of Boiling on Beta-carotene Content of Forest Green Leafy Vegetables Consumed by Tribals of South India

Chapter 7 : Physical and Functional Properties of Mucilages from Yellow Mustard (*Sinapis alba* L.) and Different Varieties of Fenugreek (*Trigonella foenum-graecum* L.) Seeds

Chapter 8 : Quality Parameters of Selected Mango Cultivars

Chapter 9 : Effect of Stage of Apple Pomace Collection and the Treatment on the Physico-chemical and Sensory Qualities of Pomace Papad (Fruit cloth)

Chapter 10 : Physical Refining of Rice Bran and Soybean Oils

Chapter 11 : Physico-chemical Status of Major Milk

Constituents and Minerals at Various Stages of Shrikhand Preparation

Chapter 12 : Studies on the Development of Instant 'Dahi Bhalla'-An Indian Traditional Snack Preparation

Chapter 13 : Quality Characteristics of Freeze Dried Indian White Squid (*Loligo duvauceli* Orbigny)

Chapter 14 : Antinutrients and Protein Digestibility of Fababean and Ricebean as Affected by Soaking, Dehulling and Germination

Chapter 15 : Nutritional Evaluation of Sorghum Flour on Supplementation with Whey Proteins

Chapter 16 : Nutritional Evaluation of Soy Fortified Biscuits

Chapter 17 : Functional Properties of Defatted Cashew Kernel Flour

Chapter 18 : Glucoamylase Production by *Aspergillus Niger* in Solid State Fermentation with Paddy Husk as Support

Chapter 19 : Effect of Storage on Physico-chemical & Nutritional Characteristics of Carrot-Beetroot and Carrot-Black Carrot Juice

Chapter 20 : Osmotic Dehydration Characteristics of Button Mushrooms

Chapter 21 : Quality Changes in Banana (*Musa acuminata*) Wines on Adding Pectolase and Passion Fruit

Chapter 22 : Concentration of Clarified Orange Juice by Reverse Osmosis

Chapter 23 : Studies on the Volatiles of Cardamom

(*Elleteria cardamomum*)

Chapter 24 : Effect of Level of Juice Extraction on  
Physico-chemical Characteristics and  
Bitterness of Heat Processed Kinnow Juice

Chapter 25 : Nutritive Value of Malted Flours of Finger  
Millet Genotypes and Their Use in the  
Preparation of Burfi

Chapter 26 : Effect of Storage on Rice Yield Recovery

Chapter 27 : Studies on the Processing and Evaluation  
of Instant Idli Mixes

Chapter 28 : Vermicelli Noodles and Their  
Quality Assessment

Chapter 29 : Composition and Functional Properties  
of Fermented Soybean Flour (Kinema)

Chapter 30 : Biscuit Making Quality of Advance Lines of  
Wheat in India

Chapter 31 : Effect of Incorporation of Defatted Soyflour on  
the Quality of Sweet Biscuits

Chapter 32 : Effect of Supplementation of Processed Maize  
Germ Cake on Nutritional Quality of Maize

Chapter 33 : Studies on the Stability of Some Edible Oils  
and Their Blends During Storage

Chapter 34 : Reversed-Phase HPLC of Methyl Esters of  
Fatty Acids in Soybean Oil

Chapter 35 : Functional Properties and Nutritive Composition  
of Maize (*zea mays*) as Affected by Heat  
Treatments

Chapter 36 : Effect of Non-enzymatic Browning on Quality  
of Lime Juice

Chapter 37 : Essential Oil Composition of Fresh and  
Osmotically Dehydrated Galgal Peels

Chapter 38 : Solar Drying of Coriander and Methi Leaves

Chapter 39 : Supercritical Co<sub>2</sub> Extraction of Sesame Oil  
from Raw Seeds

Chapter 40 : Studies on Juice Extraction of Aonla  
(*Embllica officinalis* Gaertn.) cv. 'Chakaiya'

Chapter 41 : Anti-nutritional and Flatulence Factors at Various  
Stages of Vegetative Growth of Fenugreek  
(*Trigonella Foenum Graecum* L.) Leaves

Chapter 42 : Processing and Quality Evaluation of Banana  
(*Musa acuminata*) Cheese

Chapter 43 : Effect of Primary Processing on Microbial  
Load of Cauliflower and Fenugreek

Chapter 44 : Utilisation of Peel in Plantain Wine Production

Chapter 45 : Optimization of Processing Conditions for  
Cottage Scale Production of Hurum

Chapter 46 : Sugarcane Juice Concentrate  
Preparation, Preservation and Storage

Chapter 47 : Nutritive Value of Dehydrated Green Leafy  
Vegetable Powders

Chapter 48 : Optimization of Process Parameters for  
Absorption of Milk by Makhana

Chapter 49 : Development of Nutritious Supplementary

Biscuits from Greengram Dhal

Chapter 50 : Vitamin A Fortification of Cottage Cheese

Chapter 51 : Biochemical Composition of Cashew

(*Anacardium occidentale* L.) Kernel Testa

Chapter 52 : Microbiological Quality of Milk, Vegetables and Fruit Juices

Chapter 53 : Bacteriological Examination of Pasteurized Milk and Milk Products, Sold in Harare, Zimbabwe

Chapter 54 : Effect of Different Thermal Treatments on Vitamin C and Microbial Sterility of Canned

Drumstick (*Moringa oleifera*)

Chapter 55 : Solar Tunnel Drying of Red Chillis

(*Capsicum annum* L.)

Chapter 56 : Studies on Nitrogen Extractability of Defatted Sunflower Meal

Chapter 57 : Development of Cold Grinding Process, Packaging and Storage of Cumin Powder

Chapter 58 : Determination of Residual Hexane and Microbiological Status in De-oiled Soybean Meal

Chapter 59 : Oil/saccharide Levels of Processed Redgram (*Cajanus cajan* L.)

Chapter 60 : Impact of Drying on Quality of Betel Leaf (*Piper betle* L.)

Chapter 61 : Chemical Composition, Anti-nutritional Factors and Shelf-life of Oyster Mushroom (*Pleurotus ostreatus*)

Chapter 62 : Effect of Milk Protein Modification on Physico-chemical Changes During Ripening of Cheddar Cheese

Chapter 63 : Simple Tests for Differentiating Raw-Old and New and Steamed Rice in a Mixture

Chapter 64 : Effect of Chhana and Paneer Whey on the Manufacturing Time and Loaf Volume of Bread

Chapter 65 : Glucose Lowering Effects of Pre-cooked Instant Preparations Containing Alfalfa Seeds in Non-insulin Dependent Diabetic Subjects

Chapter 66 : Modelling of Visual Shelf-life of Pearl Millet (*Pennisetum glaucum*) Dough (Fura)

Chapter 67 : Effect of Blanching on Pickled Bitter Gourd (*Momordica charantia*)

Chapter 68 : Testing of A Convection Type Cylindrical Dryer for Production of Instant Soy dosa Mix

Chapter 69 : Antinutrient Profile and Chemical Composition of Custard Powder Produced in Nigeria

Chapter 70 : Evaluation of Performance of Shea Fat as a Shortening in Breadmaking

Chapter 71 : Microbiological and Biochemical Changes During Fermentation of Kanji

Chapter 72 : Bakery Products and Confections

Chapter 73 : Adverse Reactions to Food Additives and Colours

Chapter 74 : Inhibitory Action of Cinnamon on *Listeria Monocytogenes* in Meat and Cheese

Chapter 75 : Competitive Growth of Aeromonas  
Hydrophila in Meat  
Chapter 76 Preliminary Physico-chemical and Microbial  
Evaluation of an Exudate from a Neem Tree  
(Azadirachta Indica Juss.) in Mysore, South India

## 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](mailto:npcs.india@gmail.com) **Website:** [NIIR.org](http://NIIR.org)

Thu, 01 May 2025 20:43:00 +0000