Handbook on Food Biotechnology (Extraction, Processing of Fruits, Vegetables and Food Products) 2nd Revised Edition

Author:- NIIR Board of Consultants & Engineers
Format: paperback
Code: NI153
Pages: 400
Price: Rs.1495**US$** 150
Publisher: NIIR PROJECT CONSULTANCY SERVICES
Usually ships within **5** days

Modern biotechnology refers to various scientific techniques used to produce specific desired traits in plants, animals or microorganisms through the use of genetic knowledge. Since its introduction to agriculture and food production in the early-1990, biotechnology has been utilized to develop new tools for improving productivity. Biotechnology is a broad term that applies to the use of living organisms and covers techniques that range from simple to sophisticated.

In contrast, modern agricultural biotechnology techniques, such as genetic engineering, allow for more precise development of crop and livestock varieties. The potential benefits of biotechnology are enormous. Food producers can use new biotechnology to produce new products with desirable characteristics. These include characteristics such as disease and drought-resistant plants, leaner meat and enhanced flavor and nutritional quality of foods. This technology has also been used to develop life-saving vaccines, insulin, cancer treatment and other pharmaceuticals to improve quality of life.

It is estimated that in the next 20-30 years demand for food will increase by 70%. Biotechnology will be key to meeting this demand. This handbook is designed for use by everyone engaged in thefoodtechnologysuch as fermentation, developing and testing of food and students who are pursuing their career in food biotechnology. It provide all information on modern cooking, food processing and preservation methods, juice preparation methods, etc.

The major content of the book are Fermenter and Bio-Reactor Design, Development and Testing of a Milled Shea Nut Mixer, Production of Pure Apple Juice in Natural Colour, Drying of Ginger using Solar Cabinet Dryer, Roasting of Coffee Beans, Processing of Guava into Pulp Guava Leather, Processing and Preservation of Jack Fruit, Quality Changes in Banana, Processing and Quality Evaluation of Banana Natural Colour, Large Scale Separation and Isolation of Proteins, Preparation and Storage Studies on Onion-Ginger-Garlic Paste, Bitterness Development in Kinnow Juice, Effect of Incorporation of Defatted Soyflour, Gum from Ber Fruits, Juice Extraction of Aonla (EmblicaOfficinalisGaertn.) Cv. ‘Chakaiya’, Defatted Mucuna Flour in Biscuits, Detoxifying Enzymes, Processing Methods and Photographs of Machinery with Suppliers Contact Details.

This book will be a mile stone for its readers who are new to this sector, will also find useful for professionals, entrepreneurs, those studying and researching in this important area.

Organoleptic Evaluation

4. DRYING OF GINGER USING SOLAR CABINET DRYER

5. ROASTING OF COFFEE BEANS

ROASTING PROCESS

Physical Properties

Swelling Ratio

Breaking Strength

Colour Value

Organoleptic Evaluation

6. PROCESSING OF GUAVA INTO PULP AND GUAVA LEATHER

EXTRACTION OF PULP

Preparation of Guava Leather

Preparation of Ready-to-Serve Drinks

Chemical Constituents

Pulp Analysis

Quality of Guava Leather

CONCLUSION

7. PROCESSING AND PRESERVATION OF JACK FRUIT

8. QUALITY CHANGES IN BANANA

BANANAS

Fermentation

Analysis

Sensory Evaluation

Statistical Analysis

Total Soluble Solids (°Brix)

Total Titratable Acidity

Colour

Clarity

(viii)

Sensory Evaluation

Microbiological Evaluation

DEVELOPMENT OF PROCESSING TECHNOLOGY AND QUALITY

EVALUATION OF PAPAYA (CARICA PAPAYA) CHEESE ON STORAGE

MATERIALS AND METHODS

Raw Materials

Processing

Experimental Design

Physical and Microbiological Analyses

Sensory Evaluation

RESULTS AND DISCUSSION

Colour and Texture

Sensory Qualities

Microbiological Properties

9. PROCESSING AND QUALITY EVALUATION OF BANANA

BANANAS

Processing

Physico-Chemical Analysis

Microbial Analysis

Sensory Analysis

Sensory Evaluation

Analyses

Protein Separations in Electrical Fields

Electrodialysis

Electrophoresis

Isoelectric Focussing

Novel and Experimental Protein Separation Techniques

PROTEIN RECOVERY PROCESSES: NON-FERMENTATION FEEDSTOCKS

Recovery of Waste Proteins from the Meat Industry

Proteins from Milk

Casein

Whey Powder

Whey Protein Isolate

Proteins from Agricultural Crops

Soya Proteins

‘Leaf ’ Proteins

Vegetable Processing Waste Streams

Protein Recovery from Blood Plasma

Human Blood

Animal Blood

RECOVERY OF MICROBIAL AND ANIMAL CELL PROTEINS

Recovery Process Principles

Single-cell Protein

Extracellular Enzyme Recovery Processes

Recovery of Biologically Active Proteins

Impact of rDNA Techniques on Protein Recovery

SAFETY ASPECTS OF PROTEIN RECOVERY PROCESSES

11. PREPARATION AND STORAGE STUDIES ON ONION-GINGER-GARLIC PASTE

PREPARATION OF PUREE

Preparation of mixed paste

Colour measurement

Storage studies

Physico-chemical properties

Statistical analysis

Storage characteristics

(x)

STUDIES ON DEVELOPMENT OF INSTANT CHUTNEYS FROM

PUDINA (MINT, MENTHA SPICATA) AND GONGURA (HIBISCUS SP)

Materials

Preparation of fresh chutneys

Preparation of instant chutneys

Chemical analysis

Reconstitution of instant chutney powders at room temperature

12. BITTERNESS DEVELOPMENT IN KINNOW JUICE

MATERIALS AND METHODS

Materials

Juice

Ready-to-Serve (RTS) beverage

Squash

Lye peeling of segments

Jam

Candy

Physico-chemical analysis

Sensory analysis

Statistical analysis

RESULTS AND DISCUSSION

Kinnow juice

Kinnow RTS beverage

Kinnow squash

Standardisation of lye peeling

Kinnow jam

Kinnow candy

13. EFFECT OF INCORPORATION OF DEFATTED SOYFLOUR

RAW MATERIAL

Preparation of sweet biscuits

Proximate composition

Textural analysis

Sensory evaluation

14. GUM FROM BER FRUITS

15. JUICE EXTRACTION OF AONLA (EMBLICA OFFICINALIS GAERTN.) CV. ‘CHAKAIYA’

ANALYSIS

Physico-chemical characteristics

Organoleptic evaluation

(xi)

16. DEFATTED MUCUNA FLOUR IN BISCUITS

BISCUIT FORMULATION

Chemical analysis

17. DETOXIFYING ENZYMES

GOITROGENIC GLYCOSIDES

CYANOGENIC GLYCOSIDES

PREPARATION OF THE DOUGH

Fermentation of the Dough

What is there in a Dough ?

What Happens in the Dough during Fermentation?

The Factors Affecting Gluten Maturing

“Knocking” or “Cutting-back” the Dough

After-Fermentation Treatment

Dividing the Dough into Loaves

The “Hander-up”

The “Moulder”

THE BAKING PROCESS

The Action of the Oven

Yeast Activity Increases as the Temperature Rises

Why Steam is Injected into the Oven

The Death Point of the Yeast

Faults Due to Incorrect Fermentation

Why Loaves are a Pleasant Brown Colour

BREAD WRAPPING

BISCUIT MANUFACTURE AND CAKE MAKING

BISCUITS

INGREDIENTS

Flour

Fats

Other Ingredients

THE BAKING PROCESS

FAULTS

Checking of Biscuits

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Sun, 07 Dec 2025 09:23:55 +0000