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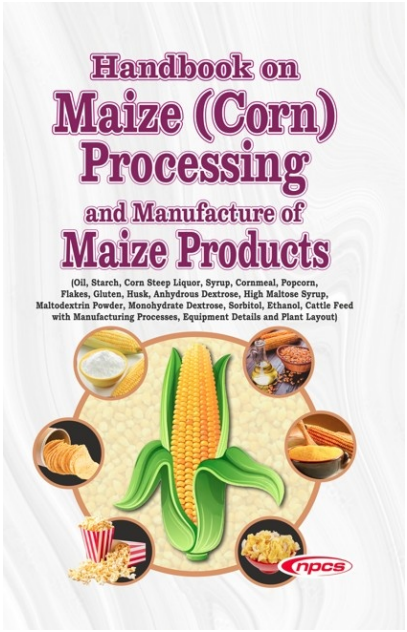

Handbook on Maize (Corn) Processing and Manufacture of Maize Products

Code	NI329
Format	paperback
Indian Price	₹1895
US Price	$150
Pages	504
ISBN	9788195577552

Publisher	NIIR PROJECT CONSULTANCY SERVICES

Description

Handbook on Maize (Corn) Processing and Manufacture of Maize Products (Oil, Starch, Corn Steep Liquor, Syrup, Cornmeal, Popcorn, Flakes, Gluten, Husk, Anhydrous Dextrose, High Maltose Syrup, Maltodextrin Powder, Monohydrate Dextrose, Sorbitol, Ethanol, Cattle Feed with Manufacturing Processes, Equipment Details and Plant Layout)

In India, maize is becoming third most significant crop. Its significance stems from the fact that it is utilised not only for human food and animal feed, but also for corn starch manufacturing, corn oil production, and the generation of baby corns. Additionally, maize stover, the leaves and stalk of the maize plant, is used for forage, biofuel production, and chemical production.

Corn is also processed into a multitude of food and industrial products including:-

- Corn Starch is a yellow powder made from finely ground, dried corn, while cornstarch is a fine, white powder made from the starchy part of a corn kernel.
- High fructose corn syrup (HFCS) is a sweetener derived from corn syrup, which is processed from corn.
- Corn oil contains some healthy components like vitamin E and phytosterols, but overall it's not considered a healthy fat.
- Corn ethanol is produced from corn biomass and is the main source of ethanol fuel, mandated to be blended with gasoline in the Renewable Fuel Standard.
- Some strains of corn (Zea mays) are cultivated specifically as popping corns.
- Dextrose Anhydrous can be used as sweetener in baked goods, candies, gums, dairy products like some ice-creams and frozen yogurts, canned foods, cured meats etc.
- Maltose is a sugar that tastes less sweet than table sugar. It contains no fructose and is used as a substitute for high-fructose corn syrup.
- Maltodextrin is a white powder made from corn. To make it, first the starches are cooked, and then acids or enzymes such as heat-stable bacterial alpha-amylase are added to break it down further.
- Dextrose is the name of a simple sugar made from corn that's chemically identical to glucose, or blood sugar.
- Sorbitol, or glucitol as it is sometimes called, is a slow-metabolizing sugar alcohol derived from fruits, corn and seaweed.

The global maize market is expected to grow at a CAGR of 3.8%. The factors that affect the demand for starch mainly include population growth and industrial

development of a country; specifically the food and beverage, textiles, paper and printing, pharmaceuticals and other health and beauty products, and adhesives.
The demand for high-fructose corn syrup (HFCS) sweeteners across the country is majorly due to its wide usage in the confectionery, bakery, and beverage industries, especially soft drink manufacturing. Rising health awareness among consumers has resulted into increasing preference for corn oil due to its health benefits. More ethanol production means more demand for corn. According to the most recent statistics released by the U.S. Department of Agriculture, 35%, or 5.25 billion bushels, of the projected 15.062 billion bushels of corn harvested will be processed into ethanol.
The book covers a wide range of topics connected to Maize Products, as well as their manufacturing processes. It also includes contact information for machinery suppliers, as well as images of equipments.
A complete guide on Maize (Corn) Processing and Manufacture of Maize Products manufacture and entrepreneurship. This book serves as a one-stop shop for everything you need to know about the Maize manufacturing industry, which is ripe with opportunity for manufacturers, merchants, and entrepreneurs. This is the only book that covers Maize (Corn) Processing and Manufacture of Maize Products in depth. From concept through equipment procurement, it is a veritable feast of how-to information.

Content

1. INTRODUCTION
1.1 Taxonomy, Origin and Evolution
1.1.1 Taxonomy
1.2 Botanical Features
1.3 Pollination and Fertilization
1.4 Seed Dispersal
1.5 Corn Seed Anatomy
1.6 Anthesis-Silking Interval (Asi)
1.6.1 Flour Corn
1.6.2 Sweet Corn
1.6.3 High-Amylose Corn
2. HOW TO START MAIZE BUSINESS
2.1 Step 1: Register the Business
2.2 Step 2: Create a Business Plan
2.3 Step 3: Secure Funding
2.4 Step 4: Choose a Land
2.5 Step 5: Prepare the Land
2.6 Step 6: Plant the Seed
2.7 Step 7: Control Pest and Diseases

2.8 Step 8: Harvest
2.9 Step 9: Market the Product
3. MAIZE INDUSTRIAL OUTLOOK
3.1 Post-Harvest Handling and Supply Chain Scenario
3.2 Demand & Consumption Trends
3.3 Government Initiatives & Policies
3.4 Growth Drivers and Challenges
4. HOW TO EXPORT
4.1 Introduction
4.2 Starting Exports
4.3 Processing an Export Order
5. CLASSIFICATION OF MAIZE
5.1 Dent Corn
5.2 Flint Corn
5.3 Flour Corn
5.4 Sweet Corn
5.5 Popcorn
5.6 Pod Corn
5.7 Waxy Corn
5.8 High-Amylose Corn
5.9 High-Lysine Corn
5.10 Ornamental Corn
6. MAIZE HYBRID SEED PRODUCTION
6.1 What is a Maize Hybrid?
6.2 Hybrid Composition
6.3 Seed Classes
6.4 Planning Seed Production Requirements
6.5 Field Management of Hybrid Seed Production
6.6 Flow Diagram for Seed Production
6.7 Selecting the Seed Field
6.8 Crop Establishment
6.9 Roguing: Removal of Off-Types
6.10 When to Rogue
6.11 Detasseling
6.12 Male Removal
6.13 Inspections of the Seed Crop
7. MAIZE SEED PRODUCTION TECHNIQUE
7.1 Introduction
7.2 Features
7.3 Importance of Good Quality Seed
7.4 Method of Maize Seed Production

7.4.1 Various stages of Maize Plant
7.4.1.1 A) Technical Aspects for Quality Seed Production
(A)Seedling Stage
(B) Growth Stage of Maize
(C) Tasseling Stage
D) Silking Stage
(E) Milking Stage of Maize
7.4.1.2 Climate and Soil Condition
7.4.1.3 Marketing Plan
7.4.1.4 Selection of Land
7.4.1.5 Crop Rotation for Reducing Disease and Pest
7.4.1.6 Works before Cultivation of Maize
7.4.1.7 Land Preparation and Sowing
7.4.1.8 Methods of Sowing Seeds
7.4.1.9 Application of Chemical Fertilizer
7.4.1.10 Farming Activities during Growth Period
7.4.1.11 Major Pest & Diseases
7.4.1.12 Harvesting of Maize
7.4.1.13 Post-Harvest Processing and Storage
7.4.1.2 B) Management Aspects for Quality Seed Production
Major Actions to Be Taken By Seed Production Cooperative
8. IMPROVED TECHNOLOGIES FOR HIGHER MAIZE PRODUCTION
8.1 Crop Establishment
8.2 Water Management
8.3 Weed Management
8.4 Nutrient Management
8.5 Insect and Pest Management
8.6 Harvesting
8.7 Multiple Cropping
8.8 Techniques to Get Higher Market Price
9. MAIZE PRODUCTION
9.1 Morphology, Growth and Development
• Root System
• Leaves
• Stem
• Inflorescence
• Maize Ear
• Maize Kernel
9.2 Growth and Development
• Growth Stage 0: from Planting to Seed Emergence
• Growth Stage 1: Four Leaves Completely Unfolded

• Growth Stage 2: Eight Leaves Completely Unfolded
• Growth Stage 3: Twelve Leaves Completely Unfolded
• Growth Stage 4: Sixteen Leaves Completely Unfolded
• Growth Stage 5: Silk Appearance and Pollen Shedding
• Growth Stage 6: Green Mealie Stage
• Growth Stage 7: Soft Dough Stage
• Growth Stage 8: Hard Dough Stage
• Growth Stage 9: Physiological Maturity
• Growth Stage 10: Drying of Kernels (Biological Maturity)

9.3 Adaptation and Production Potential
9.3.1 Climatic Requirements
9.3.2 Cultural Practices
9.4 Implements and Soil Tillage
9.4.1 Primary Tillage Implements
9.4.2 Secondary Tillage Implements
9.5 Tillage Systems
9.6 Establishment Practices
9.7 Cultivar Choice
9.7.1 Fertilisation of Maize
9.8 Application Methods
9.9 Weeds
9.9.1 Methods of Weed Control
9.10 Principles of Pest Control
9.10.1. Integrated Pest Management
9.11 Irrigation
9.12 Harvesting Process
9.12.1 Hand Harvesting
9.12.2 Mechanical Harvesting
9.13 Production Management Guidelines
10. CORN OIL
10.1 Constituents of Corn Oil
10.2 Characteristics of Corn Oil
10.3 Application
10.4 Health Benefits of Corn Oil
10.5 Traditional Uses
10.6 Precautions
10.7 Steps in Production
1) Corn Germ
2) Grinding and Cleaning
3) Pressing

4) Extracting Additional Oil with Solvents Seeds with More
Oil are Pressed and Solvents
5) Removing Solvent Traces
6) Refining the Oil
7) Packaging the Oil
8) By Products/Waste
10.8 Equipments in the Small Oil Plant
11. CORN STARCH
11.1 Origin
11.2 Function
11.3 Composition
11.4 Application
11.5 Nutrition
11.6 What are the Chemicals in Cornstarch?
11.7 Components of Cornstarch
11.8 Cornstarch and Corn Flour
11.9 Modification
11.10 Production Process
11.10.1 Corn Cleaning
11.10.2 Corn Steeping
11.10.3 Steeping Evaporation
11.10.4 Germ Separation
11.10.5 Germ Drying
11.10.6 Corn Oil
11.10.7 Fine Grinding and Screening
11.10.8 Fiber Drying
11.10.9 Primary Separation
11.10.10 Gluten Recovery
11.10.11 Gluten Dewatering and Drying
11.10.12 Corn Starch Refining
11.10.13 Centrifuge and Hydrocyclones
11.10.14 Starch Dewatering
11.10.15 Starch Drying
12. CORN STEEP LIQUOR (CSL)
12.1 Appearance
12.2 Organic Corn Steep Liquor
12.3 Conventional Corn Steep Liquor
12.3.1 Animal Feed
12.3.2 Fermentation
12.3.3 Fertilizers
12.4 Chemical Properties

12.5 Uses
12.6 A Multifunctional Extract from Corn Steep Liquor
13. CORN SYRUP (HIGH FRUCTOSE CORN SYRUP-HFCS)
13.1 Uses
13.2 Commercial Preparation
13.3 Substitutes
13.4 What Foods Contain High Fructose Corn Syrup?
13.5 Is HFCS Safe?
13.6 Foods that contain HFCS
13.7 Where does HFCS come from?
13.8 How much Fructose is in HFCS?
13.9 Is HFCS less safe than other Sweeteners?
13.10 Raw Materials
13.11 Production
13.12 Manufacturing Process
13.13 Separating Corn Starch from Corn
13.14 Converting Corn Starch into Corn Syrup
13.15 Converting Corn Syrup into High Fructose Corn Syrup
13.16 What’s the Process of Making Corn Starch Syrup?
13.16.1 Starch Mixing
13.16.2 High Temperature Liquefaction
13.16.3 Saccharification
13.16.4 Decolorization
13.16.5 Filter Process in the Process of Making Corn Starch Syrup
13.16.6 Ion Exchange
13.16.7 Three-Effect Vacuum Concentration
14. CORNICK (CORN NUT)
14.1 Description
14.2 Variations
14.3 Are Corn Nuts Healthy?
14.4 What Is the Nutritional Value of Corn Nuts?
14.5 Can Corn Nuts be used in Food Preparation?
14.6 Corn Nuts for Snacking Paradise
14.7 Puffed Snack Food Production Line
14.8 Features
14.9 The Benefits of Using a Food Extruder Machine
14.10 Processing Equipment in Snacks Manufacturing Plant
15. CORNMEAL

15.1 Types
15.1.1 Corn Flour (or Polenta Flour)
15.1.2 Corn Grits
15.1.3 Polenta
15.1.4 Corn Flakes
15.1.5 Masa Harina
15.1.6 Hominy Grits
15.2. Non-Corn Substitutes
15.2.1 Semolina
15.2.2 Ground Oats
15.2.3 Wheat Flour
15.2.4 Rice Flour
15.2.5 Ground Flaxseed
15.3. Cornmeal vs. Polenta vs. Corn Flour vs. Grits
15.4. Processing
15.4.1 Cleaning
15.4.2 Degermination
15.4.3 Milling
15.4.4 Sifting
15.4.5 Packaging
15.5. Processing Equipment
15.5.1 Cleaning Section
15.5.2 Peeling and Milling Section
15.5.3 Packing Section
16. CORNSTALK FIDDLE
16.1 Construction
16.2 Corn Stalk Fiber
16.3 Experiment Detail
16.4 Corn Stalk Pellet Plant
17. HOMINY CORN
17.1 Uses
17.2 Production
18. POPCORN
18.1 Nutritional Value of Popcorn
18.2 Health Benefits
18.2.1 Popcorn Improves Digestive Health
18.2.2 Popcorn Antioxidants Benefits
18.2.3 Popcorn Helps In Metabolism and Provides Energy
18.2.4 Popcorn Helps to Reduce Depression
18.2.5 Popcorn Supports Healthy Bone Function
18.2.6 Popcorn Controls Blood Sugar Level

18.2.7 Popcorn Combats Tumour Cells
18.2.8 Popcorn Reduces Craving for Food
18.2.9 Popcorn Prevents Aging
18.2.10 Popcorn Lowers Cholesterol Levels
18.2.11 Popcorn Controls Anaemia
18.2.12 Popcorn Helps In Relieving Constipation
18.3 Uses
18.4 Component
18.5 Popcorn Processing
18.5.1 Grain Delivery
18.5.2 Cleaning
18.5.3 Popping
18.5.4 Packaging of Product
18.6 Equipment for Popcorn Processing
18.6.1 Gravity Separator
18.6.2 Popcorn Making Machine
18.6.3 Popcorn Caramelizing Machine
18.6.4 Electricity Oven
18.6.5 Popcorn Filling Machine
19. CORN FLAKES
19.1 Nutritional Value
19.2 Characteristics
19.3 Objectives
19.4 Product and Its Uses
19.5 Application
19.6 Properties
19.7 Health Benefits of Corn Flakes
19.7.1 Well-Balanced Nutrition
19.7.2 It’s Good for Heart
19.7.3 Foods High in Protein
19.7.4 It Helps to Keep the Lungs Healthy
19.7.5 Loss of Weight
19.8 Raw Material Availability
19.9 Manufacturing Process
19.10 Industry Look Out and Treads
19.11 Corn Flakes Producing Equipment
19.11.1 Ingredients
19.11.2 Extrusion Maturation Moulding
19.11.3 Cutting
19.11.4 Pre-Drying
19.11.5 Tableting

19.11.6 High-Temperature Roasting
19.11.7 Cooling
20. MAIZE GLUTEN
20.1 Features of Corn Protein
20.2 Applications
20.3 Functional Advantages
20.3.1 Animal Feed
20.3.2 Herbicide
20.3.3 Handling and Storage
20.4 Production
20.5 Nutritional Attributes
20.5.1 Potential Constraints
20.5.2 Ruminants
20.6 Nutritional value
• Energy Value
• Protein Value
• Phosphorus Availability
• Palatability and Feeding Behaviour
20.7 Wet Corn Gluten Feed
20.8 Dried Corn Gluten Feed
20.9 Modified Corn Fibre
20.10 Corn Gluten Feed & Meal Test
• Drying Technology and Systems
• Indirectly Heated Rotary Tube Bundle Dryers
• High Perfomance Flash Tube Dryers
20.11 Energy Plants & Technology
• Grate-Firing Systems
• Steam Generator
• Thermal Oil Heaters
21. CORN SILK
21.1 Introduction
21.2 Development
21.3 Function
21.4 Pathology
21.5 Applications
21.6 Benefits
21.7 Additional Health Benefits
21.8 Corn Silk Dosage
21.9 Uses
22. CORN HUSK
22.1 Description

22.2 Applications
22.3 Use
22.4 Characterization of Corn Husk Agro-Residue Samples Moisture Content
22.5 Process
22.6 Quality Improvement of Corn Husk as Raw Material for Textile Products
22.6.1 Classification of Textile Fiber
22.6.2 Fibers' Characteristics and Tenacity
22.6.3 Methods
22.6.4 Process
23. ANHYDROUS DEXTROSE
23.1 Functional Advantages
23.2 Applications
23.3 Anhydrous Glucose Production Processes
24. HIGH MALTOSE SYRUP
24.1 Functional Advantages Crystallizing
24.2 Applications
24.3 High-Maltose Corn Syrup vs. High-Fructose Corn
Syrup
24.4 Nutrition
24.5 Commercial Production
24.6 Maltose Syrup Processing Machinery
Step 1: Mixing Process
Step 2: The Liquefaction Process
Step 3: The Deproteinization Process
Step 4: The Saccharification Process
Step 5: The Decolorization Process
Step 6: The Decarburization Process
Step 7: The Ion Exchange Process
Step 8: The Evaporation Process
Step 9: Final Product Storage
Step 10: Lab
25. MALTODEXTRIN POWDER
25.1 What is Maltodextrin made from?
25.2 Functional Advantages
25.3 Properties
25.4 Uses
25.5 Maltodextrin Production
i. Liquefaction
ii. Saccharifying
iii. Filtering
iv. Decoloring

v. Ion Exchange (IX)
vi. Evaporation and concentration
vii. Crystallization
25.6 Special Features
26. MONOHYDRATE DEXTROSE (DMH)
26.1 Advantages
26.2 Uses
26.3 Application
26.4 Process
27. SORBITOL 70%
27.1 Features
27.2 Advantages
27.3 Uses
27.4 Processed Foods
27.5 Sorbitol Production
28. VITAMIN C
28.1 Introduction
28.2 How the Vitamin C made?
28.3 Chemical Structure
28.4 Food Sources
28.5 Property
28.6 Health Benefits
29. ETHANOL PRODUCTION USING CORN
29.1 What is Corn Ethanol?
29.2 Uses
29.3 Benefits
29.4 Production Processes
• Dry-Grind Ethanol Process
• Wet-Milling Process
30. CATTLE FEED FROM CORN
30.1 Introduction
30.2 Characteristics
30.3 Feeding Value of Corn
30.4 Processing Corn
30.5 Effect of Corn Bushel Weight on Cattle Performance
30.6 High-moisture Corn
30.7 Immature and Frost-Damaged Corn
30.8 Manufacturing Process
30.8.1 Material Handling
30.8.2 Grinding
30.8.3 Mixing

30.8.4 Conditioning
30.8.5 Pelleting
30.8.6 Cooling
31. METHODS OF PREPARING COMPOST
31.1 PART 1: Farm Yard Manure (FYM)
31.1.1 Introduction
31.1.2 Advantages of Well Decomposed Farm Yard Manure (FYM)
31.1.3 Material Required for Making FYM
31.1.4 Condition Required for Well Decomposition
of FYM
31.1.5 Collection of Animal Urine and Its Advantages
31.1.6 Things to Be Considered While Making Farm Yard Manure (FYM)
31.2 PART 2: Compost Manure
31.2.1 Introduction
31.2.2 The Advantages of the Compost Manure
31.2.3 The Materials Required for Making Compost
Manure
31.2.4 The Place for Making Compost Manure
31.2.5 Methods of Preparing Compost Manure
32. SWEET CORN PACKAGING
32.1 Introduction
32.2 Need of Packaging
32.3 Types of Packaging
32.4 Selection of Packaging Material
32.5 Packaging Material
32.5.1 LDPE
32.5.2 PET
32.5.3 Polypropylene
32.5.4 Glass
32.5.5 Aluminium
32.5.6 Poly Vinyl Chloride (PVC)
32.6 Some Recent Trends in Packaging
32.6.1 Modified Atmosphere Packaging
32.6.2 Active and Intelligent Packaging
32.6.3 Aspectic Packaging
32.7 Labeling
33. STARCH APPLICATIONS
33.1 Introduction
• Granular Structure
• Starch Gelatinization
33.2 Sources and Producers of Starch

33.3 Starch Applications
• Food Applications
• Nonfood Applications
34. STARCH PRODUCTION
34.1 Introduction
34.2 Glucose Syrups
• Protein Removal
• Carbon Refining
• Ion Exchange Chromatography
34.3 Starch
• Origins of Use
• Occurrence and Appearance
• Raw Material Composition
• Starch Composition
34.4 Industrial Starch Recovery
34.5 Maize Starch
35. INDUSTRIAL MARKETING
35.1 What is Industrial Marketing?
35.2 Industrial Marketing vs. Traditional B2B & B2C Marketing
35.3 Challenges Facing Industrial Marketing
35.4 Industrial Marketing Strategies to Increase Traffic
35.5 Industrial Marketing Strategies to Build Demand
35.6 Industrial Marketing Strategies to Generate Online Leads
36. PACKAGING
36.1 Consider a Multiple Packaging
36.2 Cost-Effective Packaging Solution
36.3 Pack Small
36.4 Inventory Management
36.5 Create a Purposeful Packaging
36.6 Go Green
37. POST INTERVENTION VALUE CHAIN: MAIZE
37.1 Introduction to FPC Model
37.2 FPC Development Approach
37.3 Policy and Management
37.4 FPC Revenue Model
37.5 Outcomes of Value Chain Study
38. TESTING OF ALL INDIA COORDINATED RESEARCH PROJECT (AICRP)
38.1 Stages of Testing

38.2 Trials of Initial Evaluation (IET)
38.3 Advance Evaluation Trials (AET-I)
38.4 Advance Evaluation Trials (AET-II)
39. BIS SPECIFICATIONS
40. PLANT LAYOUT AND PROCESS FLOW CHART & DIAGRAM
41. PHOTOGRAPHS OF MACHINERY WITH SUPPLIER'S CONTACT DETAILS
• Maize Plant
• Maize Degerminator Machine
• Corn Oil Processing Machine
• Maize Flour Milling Machine
• Maize Grinding Machine
• Maize Pulveriser
• Corn Starch Bag Machine
• Sweet Corn Peeling
• Sweet Corn Processing Plant
• Syrup Manufacturing Plant
• Liquid Filling Machine
• Corn Snacks Extruder Machine
• Dextrose Plant
• Corn Flakes Roaster Machine
• Corn Flakes Machine
• Maize Sheller
• Corn Husk Dewatering Screw Press
• Waste Compost Machine
• Food Waste Composting Machine
• Automatic Ethanol Plant
• Cattle Feed Machine

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