

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

Author: P. K. Chattopadhyay

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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:-

if~ 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.

if~ High fructose corn syrup (HFCS) is a sweetener derived from corn syrup, which is processed from corn.

if~ Corn oil contains some healthy components like vitamin E and phytosterols, but overall it's not considered a healthy fat.

if~ 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.

if~ Some strains of corn (*Zea mays*) are cultivated specifically as popping corns.

if~ 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.

if~ 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.

if~ 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.

if~ Dextrose is the name of a simple sugar made from corn that's chemically identical to glucose, or blood sugar.

if~ 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.

Contents

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 Trends
 - 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 Performance 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 Aspetic 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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NIIR PROJECT CONSULTANCY SERVICES , 106-E, Kamla Nagar, New Delhi-110007, India. **Email:** npcs.india@gmail.com **Website:** NIIR.org

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