NPTEL Video Course - Agriculture - NOC:Basic Crop Production Practices (BCPP)

Subject Co-ordinator - Prof. J. R. Yadav, Dr. Vinod Kumar, Dr. Sharwan Kumar Shukla

Co-ordinating Institute - IIT - Kanpur

Sub-Titles - Available / Unavailable  |  MP3 Audio Lectures - Available / Unavailable


Lecture 1 - Introduction
Lecture 2 - Irrigation and irrigation needs
Lecture 3 - Source of Irrigation
Lecture 4 - Importance of crops and classification
Lecture 5 - Crop rotation principle
Lecture 6 - Importance of vegetable and classification
Lecture 7 - Paddy crop production
Lecture 8 - Sorghum crop production
Lecture 9 - Pearl millet crop production
Lecture 10 - Maize crop production
Lecture 11 - Pigeon pea crop production
Lecture 12 - Green gram crop production
Lecture 13 - Black gram crop production
Lecture 14 - Cowpea crop production
Lecture 15 - Groundnut crop production
Lecture 16 - Sesame crop production
Lecture 17 - Soybean crop production
Lecture 18 - Sunflower crop production
Lecture 19 - Mango crop production
Lecture 20 - Guava crop production
Lecture 21 - Banana crop production
Lecture 22 - Papaya crop production
Lecture 23 - Tomato crop production
Lecture 24 - Brinjal crop production
Lecture 25 - Chili crop production
Lecture 26 - Okra crop production

-------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

NPTEL Video Course - Agriculture - NOC:GIS in Ag-Essentials and Applications (GIS)

Subject Co-ordinator - Dr. Venkataraman Balaji, Dr. R. Nagarajan

Co-ordinating Institute - IIT - Kanpur

Sub-Titles - Available / Unavailable  |  MP3 Audio Lectures - Available / Unavailable


```
Lecture 1 - Introduction
Lecture 2 - Our Agriculture Practices and Lessons
Lecture 3 - Climate and Scale of Change
Lecture 4 - Course Corrections
Lecture 5 - Modified Agriculture - Precision Agriculture
Lecture 6 - Modifed Agriculture Practice - Climate Smart Agriculture
Lecture 7 - Maps and Information in Practice
Lecture 8 - Geographical Information System (GIS)
Lecture 9 - Types of input
Lecture 10 - Analysis - Map overlay
Lecture 11 - Buffering and Perspective View
Lecture 12 - GIS Type and Available GIS Softwares
Lecture 13 - Village Cadastral Map and Property Card
Lecture 14 - Cadastral Maps and Contents
Lecture 15 - Creation of Cadastral Information Base
Lecture 16 - Land Information System
Lecture 17 - Creation of Village Boundary Based Basin Analysis
Lecture 18 - Village Information System
Lecture 19 - Needs and Weather Forecast
Lecture 20 - Cloud Types and Rain Bearing Clouds
Lecture 21 - Weather Satellites and Cloud Pattern Reading
Lecture 22 - Rainfall and Supplementary Irrigation
Lecture 23 - Synergistic Use
Lecture 24 - Surface Rainfall - Run off Assessment and Model
Lecture 25 - Soil and Water Assessment Tools (SWAT) Model
Lecture 26 - Groundwater Availability
Lecture 27 - Groundwater Potential Mapping
Lecture 28 - Water Storage and Water Availability and Release
Lecture 29 - Growth of Crop Area in Command Area and Impact Climate Change
```

-------------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

```
Lecture 30 - Impact of Climate on Agriculture
Lecture 31 - Crop Water Requirement and Distribution Loss
Lecture 32 - Village Agriculture and Other Water Demand and Supply Source
Lecture 33 - Water Security Assessment
Lecture 34 - Land Degradation
Lecture 35 - Water Logging
Lecture 36 - Water Balance Under Different Rainfall
Lecture 37 - Drought and Characteristics
Lecture 38 - Drought Vulnerability and Risk Assessment
Lecture 39 - Monitoring and Warning
Lecture 40 - Drought Monitoring
Lecture 41 - Drought Risk and Vulnerability Assessment
Lecture 42 - GIS in Sustainable Agriculture
Lecture 43 - Assessment of Existing Water Storage Structures and Rehabilitation
Lecture 44 - Sustainable Development and Agriculture
Lecture 45 - Climate Change and Drought
Lecture 46 - GIS and Drought Management
```

-----------------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

NPTEL Video Course - Agriculture - NOC:Integrated Pest Management (IPM)

Subject Co-ordinator - Prof. M. Bheemanna, Prof. B.V. Patil, Prof. Prabhuraj A

Co-ordinating Institute - IIT - Kanpur

Sub-Titles - Available / Unavailable  |  MP3 Audio Lectures - Available / Unavailable


Lecture 1 - Introduction
Lecture 2 - Insect, abundance and diversity
Lecture 3 - Insect classification based on economic importance
Lecture 4 - Pest, causes for outbreaks and categories
Lecture 5 - Pest, causes for outbreaks and categories (Continued...)
Lecture 6 - Pest surveillance and methods of sampling
Lecture 7 - Principles of Pest Management and History
Lecture 8 - IPM, Definition and Concepts
Lecture 9 - Ecological Methods of Pest Management - Legal and Cultural
Lecture 10 - Ecological Methods of Pest Management - Cultural (Continued...)
Lecture 11 - Ecological Methods of Pest Management - Cultural (Continued...)
Lecture 12 - Ecological Methods of Pest Management - Physical
Lecture 13 - Ecological Methods of Pest Management - Mechanical
Lecture 14 - Host Plant Resistance
Lecture 15 - Host Plant Resistance (Continued...)
Lecture 16 - Biological Control - Predators
Lecture 17 - Biological Control - Parasitoids
Lecture 18 - Biological Control - Microbes
Lecture 19 - Biological Control - Microbes
Lecture 20 - Pest management by modifying insect behaviour
Lecture 21 - Use of sex pheromones in pest management
Lecture 22 - Use of attractants and repellants in pest management
Lecture 23 - Pest management through radiation technology - Principles
Lecture 24 - Sterile Insect Technique - case studies
Lecture 25 - Pest management through botanicals
Lecture 26 - Pest management through botanicals (Continued...)
Lecture 27 - Chemical Control - History and classification
Lecture 28 - Mode of Action of different insecticide groups
Lecture 29 - Chemical Control - Considerations for Chemicals Integration

-------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

```
Lecture 30 - Insecticide Resistance and Management
Lecture 31 - Insecticide as component of IPM
Lecture 32 - Biotechnological Approaches in IPM
Lecture 33 - Agro-ecosystem Analysis
Lecture 34 - IPM in Paddy
Lecture 35 - IPM in Paddy (Continued...)
Lecture 36 - IPM in Pigeon pea
Lecture 37 - IPM in Pigeon pea (Continued...)
Lecture 38 - IPM in Groundnut
Lecture 39 - IPM in Mustard and Soyabean
Lecture 40 - IPM in Cotton
Lecture 41 - IPM in Cotton (Continued...)
Lecture 42 - IPM in Sugarcane
Lecture 43 - IPM in Sugarcane (Continued...)
Lecture 44 - IPM in Tomato
Lecture 45 - IPM in Cabbage
Lecture 46 - IPM in Mango
Lecture 47 - IPM in Grapes
```

-----------------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

NPTEL Video Course - Agriculture - NOC:Nutrition, Therapeutics and Health (NM)

Subject Co-ordinator - Dr. V. Vijaya Lakshmi (Instructor Incharge)

Co-ordinating Institute - IIT - Kanpur

Sub-Titles - Available / Unavailable  |  MP3 Audio Lectures - Available / Unavailable


Lecture 1 - Introduction
Lecture 2 - Relationship between Food, Nutrition and Health 1
Lecture 3 - Relationship between Food, Nutrition and Health 2
Lecture 4 - Digestion, absorption and utilization of Nutrients 1
Lecture 5 - Digestion, absorption and utilization of Nutrients 2
Lecture 6 - Recommended dietary allowances
Lecture 7 - Carbohydrate
Lecture 8 - Fiber
Lecture 9 - Protein
Lecture 10 - Protein - health significance
Lecture 11 - Fat
Lecture 12 - Energy 1
Lecture 13 - Energy 2
Lecture 14 - Energy 3
Lecture 15 - Fat Soluble Vitamins 1
Lecture 16 - Fat Soluble Vitamins 2
Lecture 17 - Fat Soluble Vitamins 3
Lecture 18 - Water Soluble Vitamins 1
Lecture 19 - Water Soluble Vitamins 2
Lecture 20 - Water soluble Vitamins 3
Lecture 21 - Water soluble Vitamins 4
Lecture 22 - Major minerals 1
Lecture 23 - Major minerals 2
Lecture 24 - Trace minerals 1
Lecture 25 - Trace minerals 2
Lecture 26 - Water
Lecture 27 - Nutritional Disorders
Lecture 28 - Balanced diet and food groups
Lecture 29 - Food guide for selecting adequate diet, practical aspects of food selection

-----------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

```
Lecture 30 - Meal planning
Lecture 31 - Other aspects affecting food selection
Lecture 32 - Food sanitation and hygiene
Lecture 33 - Water Purification
Lecture 34 - Therapeutic adaptation of normal diet
Lecture 35 - Principles of therapeutic diet
Lecture 36 - Diet during fevers
Lecture 37 - Diet in lung disease
Lecture 38 - Diet in GI disorders Â  constipation
Lecture 39 - Diet during diarrhoea
Lecture 40 - Diet in disorders of liver
Lecture 41 - Diseases of gall bladder
Lecture 42 - Diet in Diabetes
Lecture 43 - Diseases of Heart and blood vessels
Lecture 44 - Diet for myocardial infarction
Lecture 45 - Diet in kidney disorders
Lecture 46 - Diet in renal failure
Lecture 47 - Diet in cancer
Lecture 48 - Diet in metabolic disorders
Lecture 49 - Diet in stress, burns and surgery
```

-----------------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

NPTEL Video Course - Agriculture - NOC:Weather Forecast in Agriculture and Agro-advisory (WF)

Subject Co-ordinator - Dr. R. Nagarajan, Co Faculty, Dr.T.N.Balasubramanian (Rtd.), Instructor Incharge

Co-ordinating Institute - IIT - Kanpur

Sub-Titles - Available / Unavailable  |  MP3 Audio Lectures - Available / Unavailable


Lecture 1 - Introduction
Lecture 2 - Basic aspects of Atmosphere, Climate, Weather
Lecture 3 - Basic aspects of Rainfall and their application in crop production
Lecture 4 - Basic aspects of Temperature and their application in crop production
Lecture 5 - Basic aspects of Relative humidity, Cloud cover and their application in crop production
Lecture 6 - Basic aspects of wind, wind direction and their application in crop production
Lecture 7 - Three weather codes and crop production
Lecture 8 - Crop production risks and their management
Lecture 9 - Weather sensitive crops, stages and farm operations
Lecture 10 - Crop-weather interactions and definition
Lecture 11 - Crop-Weather Interactions
Lecture 12 - Crop-Weather Interactions
Lecture 13 - Crop-Weather Interactions
Lecture 14 - Crop-Weather Interactions
Lecture 15 - Crop-Weather Interactions
Lecture 16 - Genesis of weather forecast in India and Abroad
Lecture 17 - Types of weather forecast and details
Lecture 18 - Types of weather forecast and details (Continued...)
Lecture 19 - Simple methods of verification of weather forecast with real event
Lecture 20 - Traditional knowledges on weather forecast and their validity
Lecture 21 - Weather thumb rules and their validity
Lecture 22 - Development and component of agro advisory for weather forecast
Lecture 23 - Development and component of agro advisory for weather forecast (Continued...)
Lecture 24 - Model agro advisories for selected five days weather forecast
Lecture 25 - Mass communication mode of agro advisories and their effectiveness
Lecture 26 - Discussion on weather forecast and agro advisory from different website
Lecture 27 - Role of climate manager on farm management decision based on weather forecast at village level a
Lecture 28 - Development of selected weather window for issuing agro advisory - case study from Tamil Nadu
Lecture 29 - Model of agro advisory for 54 selected weather window of Tamil Nadu for rice

-----------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

```
Lecture 30 - Response farming- a type of farm planning being practiced in Australia considering seasonal clim
Lecture 31 - Case study in India on the adoption of weather based crop production - Crop management
Lecture 32 - Case study in India on the adoption of weather based crop production - Pest and disease manageme
Lecture 33 - Case study in India on the adoption of weather based animal production
Lecture 34 - Cost benefit analysis for the case study done on crop management
Lecture 35 - Cost benefit analysis for the case study done on animal management
Lecture 36 - Summary
```

-----------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

NPTEL Video Course - Agriculture - NOC:ICT Basics

Subject Co-ordinator - Prof. T.V. Prabhakar

Co-ordinating Institute - IIT - Kanpur

Sub-Titles - Available / Unavailable  |  MP3 Audio Lectures - Available / Unavailable


Lecture 1 - Introduction
Lecture 2 - Highlights Week 0 and 1
Lecture 3 - What is ICT?
Lecture 4 - Architecture of a Computer
Lecture 5 - Architecture of a Phone
Lecture 6 - What is the Internet?
Lecture 7 - What is WWW?
Lecture 8 - Highlights Week 2
Lecture 9 - Phones, Smart Phones, Phablets, Tablets
Lecture 10 - Introduction to Android
Lecture 11 - Network Architectures - Part-1 (Introduction to Computer Networks)
Lecture 12 - Network Architectures - Part-2 (Overview of Network Architecture)
Lecture 13 - Network Architectures - Part-3 (Architecture of Internet)
Lecture 14 - Mobile Wireless Communications - Introduction (Module-1)
Lecture 15 - Mobile Wireless Communication (Module-2)
Lecture 16 - Highlights Week 3
Lecture 17 - Adaptive and Responsive Websites
Lecture 18 - Data management
Lecture 19 - Knowledge Representation
Lecture 20 - Knowledge Representation Techniques
Lecture 21 - Expert Systems
Lecture 22 - Highlights Week - 4
Lecture 23 - Speech Recognition
Lecture 24 - Speech Synthesis
Lecture 25 - Identity Management - Part 1
Lecture 26 - Identity Management - Part 2
Lecture 27 - Location Recognition - Part 1
Lecture 28 - Location Recognition - Part 2
Lecture 29 - Parameter Sensing

-------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in

```
Lecture 30 - Highlights Week-5
Lecture 31 - Social Networking - Part 1
Lecture 32 - Social Networking - Part 2
Lecture 33 - Blogs
Lecture 34 - Facebook
Lecture 35 - Twitter
Lecture 36 - 3G WCDMA (Module- 3)
Lecture 37 - 4G Mobile Wireless WiMAX (Module-4)
Lecture 38 - Advanced Wireless Technologies (Module-5)
Lecture 39 - LTE, WLAN, Bluetooth and Future
Lecture 40 - Highlights Week-6
Lecture 41 - Introduction to Cloud Computing
Lecture 42 - Introduction to Cloud Services
Lecture 43 - Cloud Service Providers
Lecture 44 - GIS Application in Agriculture - Part 1
Lecture 45 - GIS Application in Agriculture - Part 2
```

-------------------------------------------------------------------------------------------------------------------------
Get Digi-MAT (Digital Media Access Terminal) For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

www.digimat.in