

## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Agriculture - NOC:Farm Machinery

Subject Co-ordinator - Prof. VK Tewari

Co-ordinating Institute - IIT - Kharagpur

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

- Lecture 1 - Importance of Farm Machines in the Contest of Enhance Production, Multiple Cropping, Labour Scarce
- Lecture 2 - Ploughing and first opening of the soil, the design and component details
- Lecture 3 - Tractor, implement and soil force consideration for tillage implement design
- Lecture 4 - Tractor, implement and soil force consideration for tillage implement design
- Lecture 5 - Mechanics of rotavator or rotary tillers
- Lecture 6 - Design of a tractor PTO operated rotavator
- Lecture 7 - Tractor implement hitching systems
- Lecture 8 - Mechanics of tractor implement hitch system and traction prediction models
- Lecture 9 - Laboratory class on traction and tire testing
- Lecture 10 - Combination tillage implements for efficient land preparation
- Lecture 11 - LASER guided land leveller
- Lecture 12 - Introduction of seeding operation
- Lecture 13 - Types of seed metering devices and their operation
- Lecture 14 - Types of fertilizer metering, furrow opening and soil covering devices
- Lecture 15 - Equipment for seeding and planting
- Lecture 16 - Equipment for precision planting
- Lecture 17 - Equipment for Paddy Transplanting
- Lecture 18 - Microcontroller based uniform seed rate application system
- Lecture 19 - GPS based automatic Variable rate fertilizer applicator
- Lecture 20 - Embedded GPS integrated Variable Rate Fertilizer Applicator
- Lecture 21 - Design of a seeding equipment - PART 1
- Lecture 22 - Design of a seeding equipment - PART 2
- Lecture 23 - Design of a seeding equipment - PART 3
- Lecture 24 - Design a tractor drawn seed drill for a 40 hp tractor - I
- Lecture 25 - Design a tractor drawn seed drill for a 40 hp tractor - II
- Lecture 26 - Testing of tractor operated seeding equipment
- Lecture 27
- Lecture 28
- Lecture 29

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## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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- Lecture 30
- Lecture 31
- Lecture 32 - Farm machines for interculture operation
- Lecture 33 - Performance of weeding blades of a push-pull weeder
- Lecture 34 - Advanced level machinery for inter and intra row weeding
- Lecture 35 - Tractor mounted contact type microcontroller based improved variable rate herbicide applicator
- Lecture 36 - Design of manually operated weeding equipment
- Lecture 37 - Plant protection equipment/machinery
- Lecture 38 - Selection and design of plant protection equipment/machinery
- Lecture 39 - Manually operated knapsack-cum-boom sprayer
- Lecture 40 - Performance evaluation of sprayer
- Lecture 41 - Testing and certification of spraying equipment
- Lecture 42 - Problems based on the design and selection of spraying equipment - I
- Lecture 43 - Problems based on the design and selection of spraying equipment - II
- Lecture 44 - Advanced level spraying equipment
- Lecture 45 - Advanced level spraying equipment
- Lecture 46 - Harvesting equipment
- Lecture 47 - Machines for harvesting cereal crops, root and fruit crops
- Lecture 48 - Combine Harvester
- Lecture 49 - Advanced technology approach for cotton harvesting
- Lecture 50 - Threshing operation and equipment
- Lecture 51 - Design of threshing equipment
- Lecture 52 - Performance evaluation and testing of thresher
- Lecture 53 - Conservation Agriculture
- Lecture 54 - Materials for construction of farm machinery
- Lecture 55 - Machinery for Land Drainage, Land Reclamation and Estate Maintenance Part - I
- Lecture 56 - Machinery for Land Drainage, Land Reclamation and Estate Maintenance Part - II
- Lecture 57 - Machinery for Land Drainage, Land Reclamation and Estate Maintenance Part - III
- Lecture 58 - Machinery Selection and Management - Part 1
- Lecture 59 - Machinery Selection and Management - Part 2
- Lecture 60 - Epilogue