## MSC AGRONOMY SEMESTER I

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Principles and practices of water management</td>
</tr>
<tr>
<td>2</td>
<td>Principles and practices of soil fertility and nutrient</td>
</tr>
<tr>
<td></td>
<td>management</td>
</tr>
<tr>
<td>3</td>
<td>Modern concepts in crop production</td>
</tr>
<tr>
<td>4</td>
<td>Dryland farming and watershed management</td>
</tr>
<tr>
<td>5</td>
<td>PRACTICALS</td>
</tr>
</tbody>
</table>

## MSC AGRONOMY SEMESTER II

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agrometeorology and Crop weather forecasting</td>
</tr>
<tr>
<td>2</td>
<td>Agronomy of major cereals and pulses</td>
</tr>
<tr>
<td>3</td>
<td>Agronomy of oil seeds, fibre and sugar crops</td>
</tr>
<tr>
<td></td>
<td>Agronomy of medicinal, aromatic and under</td>
</tr>
<tr>
<td></td>
<td>utilized crops</td>
</tr>
<tr>
<td>5</td>
<td>PRACTICALS</td>
</tr>
</tbody>
</table>

## MSC AGRONOMY SEMESTER III

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Principles and Practices of Organic Farming</td>
</tr>
<tr>
<td>2</td>
<td>Storage insect pests and their Management</td>
</tr>
<tr>
<td>3</td>
<td>Management of Problem Soils</td>
</tr>
<tr>
<td>4</td>
<td>WEED AND WEED MANAGEMENT</td>
</tr>
<tr>
<td>5</td>
<td>PRACTICALS</td>
</tr>
</tbody>
</table>

## MSC AGRONOMY SEMESTER IV

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SEED PRODUCTION TECHNOLOGY</td>
</tr>
<tr>
<td>2</td>
<td>AGROFORESTRY AND AGROSTOLOGY</td>
</tr>
<tr>
<td>3</td>
<td>PRACTICALS</td>
</tr>
<tr>
<td>4</td>
<td>RESEARCH AND SEMINAR</td>
</tr>
</tbody>
</table>
Agronomy is not just plowing and planting, but a major component of agro-ecology which includes several activities that affect the environment and human populations. An Agronomist remains in the center of efforts to work with issues related to environmental and ecological concerns, and to increase the production of food, feed, fuels and fiber for a growing world citizenry. Agronomists today are involved with many issues including producing food, creating healthier food, managing environmental impacts, and creating energy from plants. Research activities in Agronomy focus on systems analysis and simulation modeling of environmental and management impacts on agricultural production; these are key to sustainability of the agriculture production systems. In fact, agronomy is a discipline that combines the application of sciences like Biology, Chemistry, Ecology, Earth Science, and Genetics. It is a science that directly deals with the crop production technologies with a view to improve and sustain factor productivity; decline in factor productivity is the major cause of concern to Agricultural Scientists today. The significance of agronomy in agriculture and to Society can never be undermined.
M.Sc. (AGRICULTURE) AGRONOMY

FIRST SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

MODERN CONCEPTS IN CROP PRODUCTION

MAX. MARKS : 100

Objective : -

To teach the basic concepts of soil management and crop production.

UNIT I

Crop growth analysis in relation to environment, gro-ecological zones of India.

UNIT II

Quantitative agro-biological principles and inverse yield nitrogen law Mitscherlich yield equation, its interpretation and applicability; Baule unit.

UNIT III

Effect of lodging in cereals; physiology of grain yield in cereals optimization of plant population and planting geometry in relation to different resources, concept of ideal plant type and crop modeling for desired crop yield.

UNIT IV

Scientific principles of crop production; crop response production functions; concept of soil plant relations yield and environmental stress.

UNIT V

Integrated farming systems, organic farming, and resource conservation technology including modern concept of tillage; dry farming; determining the nutrient needs for yield potentiality of crop plants, concept of balance nutrition and integrated nutrient management; precision agriculture.
Practical

- Estimation of growth evaluating parameters at different stages of crop.
- Assessment of crop yield on the basis of yield attributing characters.
- Study of crop modeling for different crop yield.
- Estimation of moisture index and aridity index.
- Analysis of productivity trend in un-irrigated areas.
- Tours and visit
M.Sc. (AGRICULTURE) AGRONOMY

FIRST SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

PRINCIPLE AND PRACTICES OF SOIL FERTILITY AND NUTRIENT MANAGEMENT

MAX. MARKS : 100

Objective:-

To impart knowledge of fertilizers and manures as sources of plant nutrients and apprise about the integrated approach of plant nutrition and sustainability of soil fertility.

UNIT I

Soil fertility and productivity - factors affecting; features of good soil management; problems of supply and availability of nutrients; relation between nutrient supply and crop growth; organic farming - basic concepts and definitions.

UNIT II

Criteria of essentiality of nutrients; Essential plant nutrients – their functions, nutrient deficiency symptoms; transformation and dynamics of major plant nutrients.

UNIT III

Preparation and use of farmyard manure, compost, green manures, vermicompost, bio-fertilizers and other organic concentrates their composition, availability and crop responses; recycling of organic wastes and residue management.

UNIT IV

Commercial fertilizers; composition, relative fertilizer value and cost; crop response to different nutrients, residual effects and fertilizer use efficiency, fertilizer mixtures and grades; agronomic, chemical and physiological methods of increasing fertilizer use efficiency; nutrient interaction
UNIT V

Time and methods of manures and fertilizers application; foliar application and its concept; relative performance of organic and inorganic manures; economics of fertilizer use; integrated nutrient management; use of vermin-compost and residue wastes in crops.

PRACTICAL

• Determination of soil pH, ECe, organic C, total N, available N, P, K and S in soils
• Determination of total N, P, K and S in plants
• Interpretation of interaction effects and computation of economic and yield optima
M.Sc. (AGRICULTURE) AGRONOMY

FIRST SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

DRYLAND FARMING AND WATERSHED MANAGEMENT

MAX. MARKS : 100

Objective

To teach the basis concepts and practices of dry land farming and soil moisture conservation

Unit - I

Definition, concept and characteristics of dry land farming; dry land versus rainfed farming; significance and dimensions of dry land farming in Indian agriculture.

Unit - II

Soil and climatic parameters with special emphasis on rainfall characteristics; constraints limiting crop production in dry land areas; types of drought, characterization of environment for water availability; crop planning for erratic and aberrant weather conditions.

Unit - III

Stress physiology and resistance to drought, adaptation of crop plants to drought, drought management strategies; preparation of appropriate crop plans for dry land areas; mid contingent plan for aberrant weather conditions.
Unit - IV

Tillage, tilth, frequency and depth of cultivation, compaction in soil tillage; concept of conservation tillage; tillage in relation to weed control and moisture conservation; techniques and practices of soil moisture conservation (use of mulches, kinds, effectiveness and economics); anti-transpirants; soil and crop management techniques, seeding and efficient fertilizer use.

Unit - V

Concept of watershed resource management, problems, approach and components.

Practical

• Seed treatment, seed germination and crop establishment in relation to soil moisture contents.

• Moisture stress effects and recovery behaviour of important crops

• Estimation of moisture index and aridity index

• Spray of anti-transpirants and their effect on crops

• Collection and interpretation of data for water balance equations

• Water use efficiency

• Preparation of crop plans for different drought conditions

• Study of field experiments relevant to dryland farming

• Visit to dryland research stations and watershed projects

• Tour and visits
FIRST SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

PRINCIPLES AND PRACTICES OF WATER MANAGEMENT

MAX. MARKS : 100

Objective:-

To teach the principles of water management and practices to enhance the water productivity.

UNIT I

Water and its role in plants; water resources of India, major irrigation projects, extent of area and crops irrigated in India and different states.

UNIT II

Soil water movement in soil and plants; transpiration; soil-water-plant relationships; water absorption by plants; plant response to water stress, crop plant adaptation to moisture stress condition.

UNIT III

Soil, plant and meteorological factors determining water needs of crops; scheduling, depth and methods of irrigation; micro-irrigation system; fertigation management of water in controlled environments and poly-houses.

UNIT IV

Water management of the crops and cropping systems; quality of irrigation water and management of saline water for irrigation; water use efficiency.

UNIT V
Excess of soil water and plant growth; water management in problem soils; drainage requirement of crops and methods of field drainage, their layout and spacing.

PRACTICAL

- Measurement of soil water potential by using tensiometer, and pressure plate and membrane apparatus
- Soil-moisture characteristics curves
- Water flow measurements using different devices
- Determination of irrigation requirements
- Calculation of irrigation efficiency
- Determination of infiltration rate
- Determination of saturated/unsaturated hydraulic conductivity
M.Sc. (AGRICULTURE) AGRONOMY

SECOND SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

AGROMETEOROLOGY AND CROP WEATHER FORECASTING

MAX. MARKS : 100

Objective:

To impart knowledge about agro-meteorology and crop weather forecasting to meet the challenges of aberrant weather conditions.

UNIT I

Agro meteorology - aim, scope and development in relation to crop environment; composition of atmosphere, distribution of atmospheric pressure and wind.

UNIT II

Characteristics of solar radiation; energy balance of atmosphere system; radiation distribution in plant canopies, radiation utilization by field crops; photosynthesis and efficiency of radiation utilization by field crops; energy budget of plant canopies; environmental temperature: soil, air and canopy temperature.

UNIT III

Temperature profile in air, soil, crop canopies; soil and air temperature effects on plant processes; environmental moisture and evaporation: measures of atmospheric temperature and relative humidity vapor pressure and their relationships; evapo-transpiration and meteorological factors determining evapotranspiration.
UNIT IV

Modification of plant environment: artificial rain making, heat transfer, controlling heat load, heat trapping and shading; protection from cold, sensible and latent heat flux, controlling soil moisture; monsoon and their origin, characteristics of monsoon; onset, progress and withdrawal of monsoon; weather hazards, drought monitoring and planning for mitigation.

UNIT V

Weather forecasting in India – short, medium and long range; aerospace science and weather forecasting; benefits of weather services to agriculture, remote sensing; application in agriculture and its present status in India; atmospheric pollution and its effect on climate and crop production; climate change and its impact on agriculture.

PRACTICAL

- Visit to agro-meteorological observatory and to record sun-shine hours, wind velocity, wind direction, relative humidity, soil and air temperature, evaporation, precipitation and atmospheric pressure
- Measurement of solar radiation outside and within plant canopy
- Measurement/estimation of evapo-transpiration by various methods
- Measurement/estimation of soil water balance
- Rainfall variability analysis
- Determination of heat-unit requirement for different crops
- Measurement of crop canopy temperature
- Measurement of soil temperatures at different depths
- Remote sensing and familiarization with agro-advisory service bulletins
- Study of synoptic charts and weather reports, working principle of automatic weather station.
M.Sc. (AGRICULTURE) AGRONOMY

SECOND SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

PAPER – 202

AGRONOMY OF MAJOR CEREALS AND PULSES

MAX. MARKS : 100

Objective:

To teach the crop husbandry of cereals and pulse crops. Origin and history, area and production, classification, improved varieties, adaptability, climate, soil, water and cultural requirements, nutrition, quality components, handling and processing of the produce for maximum production of :

UNIT I

Rabicereals – Wheat, Barely, Oats, etc.

UNIT II

Kharifcereals - Paddy, Maize, Bajra etc.

UNIT III

Rabipulses - Gram, Lentit, Peas etc.

UNIT IV

Kharifpulses - Pigeonpea, Moonphean, Urdbean and Mothbean etc.

PRACTICAL

• Phenological studies at different growth stages of crop

• Estimation of crop yield on the basis of yield attributes
• Formulation of cropping schemes for various farm sizes and calculation of cropping and rotational intensity

• Working out growth indices (CER, CGR, RGR, NAR, LAD), aggressiveness, relative crowding coefficient, monetary yield advantage and ATER of prominent intercropping systems of different crops

• Estimation of protein content in pulses

• Planning and layout of field experiments

• Judging of physiological maturity in different crops

• Intercultural operations in different crops

• Determination of cost of cultivation of different crops

• Working out harvest index of various crops

• Study of seed production techniques in various crops

• Visit of field experiments on cultural, fertilizer, weed control and water management aspects

• Visit to nearby villages for identification of constraints in crop production
M.Sc. (AGRICULTURE) AGRONOMY

SECOND SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

AGRONOMY OF MEDICINAL, AROMATIC AND UNDER-UTILIZED CROPS

MAX. MARKS : 100

Objective:

To acquaint students about different medicinal, aromatic and underutilized field crops, their package of practices and processing.

UNIT I

Importance of medicinal and aromatic plants in human health, national economy and related industries, classification of medicinal and aromatic plants according to botanical characteristics and uses.

UNIT II

Climate and soil requirements; cultural practices; yield and important constituents of medicinal plants (Isabgol, Rauwolfia, Poppy, Aloe-vera, Satavar, Stevia, Safed Musli, Kalmegh, Asaphoetida, Nux vomica, Rosadle etc).

UNIT III

Climate and soil requirements; cultural practices; yield and important constituents of aromatic plants (Citronella, Palmarosa, Mentha, Basil, Lemon grass, Rose, Patchouli, Geranium etc.).

UNIT IV

Climate and soil requirements; cultural practices; yield of under-utilized crops (Rice bean, Lathyrus, Sesbania, Clusterbean, French bean, Fenugreek, Grain Amaranth, Coffee, Tea and Tobacco).

PRACTICAL
• Identification of crops based on morphological and seed characteristics
• Raising of herbarium of medicinal, aromatic and under-utilized plants
• Quality characters in medicinal and aromatic plants
• Methods of analysis of essential oil and other chemicals of importance in medicinal and aromatic plants
• Tour and visit
M.Sc. (AGRICULTURE) AGRONOMY

THIRD SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

PRINCIPLES AND PRACTICES OF WEED MANAGEMENT

MAX. MARKS : 100

Objective

To familiarize the students about the weeds, herbicides and methods of weed control.

UNIT I

Weed biology and ecology, crop-weed competition including allelopathy; principles and methods of weed control and classification; weed indices.

UNIT II

Herbicides introduction and history of their development; classification based on chemical, physiological application and selectivity; mode and mechanism of action of herbicides.

UNIT III

Herbicide structure - activity relationship; factors affecting the efficiency of herbicides; herbicide formulations, herbicide mixtures; herbicide resistance and management; weed control through bio-herbicides, myco-herbicides and allelochemicals; Degradation of herbicides in soil and plants; herbicide resistance in weeds and crops; herbicide rotation.

UNIT IV

Weed management in major crops and cropping systems; parasitic weeds; weed shifts in cropping systems; aquatic and perennial weed control.

UNIT V

Integrated weed management; cost : benefit analysis of weed management.
PRACTICAL

- Identification of important weeds of different crops
- Preparation of a weed herbarium
- Weed survey in crops and cropping systems
- Crop-weed competition studies
- Preparation of spray solutions of herbicides for high and low-volume sprayers
- Use of various types of spray pumps and nozzles and calculation of swath width
- Economics of weed control
- Herbicide resistance analysis in plant and soil
- Bioassay of herbicide resistance
- Calculation of herbicidal requirement
M.Sc. (AGRICULTURE) AGRONOMY

THIRD SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

PRINCIPLES AND PRACTICES OF ORGANIC FARMING

MAX. MARKS : 100

Objective

To study the principles and practices of organic farming for sustainable crop production.

UNIT I

Organic farming - concept and definition, its relevance to India and global agriculture and future prospects; land and water management - land use, minimum tillage; shelter zones, hedges, pasture management, agro-forestry.

UNIT II

Organic farming and water use efficiency; soil fertility, nutrient recycling, organic residues, organic manures, composting, soil biota and decomposition of organic residues, earthworms and vermicompost, green manures and bio-fertilizers.

UNIT III

Farming systems, crop rotations, multiple and relay cropping systems, intercropping in relation to maintenance of soil productivity.

UNIT IV

Control of weeds, diseases and insect pest management, biological agents and pheromones, bio-pesticides.

UNIT V
Socio-economic impacts; marketing and export potential: inspection, certification, labeling and accreditation procedures; organic farming and national economy.

**PRACTICAL**

- Aerobic and anaerobic methods of making compost
- Making of vermicompost
- Identification and nursery raising of important agro-forestry tress and tress for shelter belts
- Efficient use of biofertilizers, technique of treating legume seeds with *Rhizobium* cultures, use of *Azotobacter, Azospirillum*, and PSB cultures in field
- Visit to an organic farm
- Quality standards, inspection, certification and labeling and accreditation procedures for farm produce from organic farms
Storage insect pests and their Management

MAX. MARKS 100

UNIT I
Introduction, history concepts and significance of management of storage insect pests. Post-harvest losses in vis-à-vis total production of food grains in India. Scientific and socio-economic factors responsible for grain losses.

UNIT II
Important pests namely insects, mites, rodents, birds and microorganisms associated with stored grain and field conditions including agricultural products; traditional storage structures; association of stored grain insects with fungi and mites, their systematic position, identification, distribution, host range, biology, nature and extent of damage, role of field and cross infestations and natural enemies, type of losses in stored grains and their effect on quality including biochemical changes.

UNIT III
Ecology of insect pests of stored commodities/grains with special emphasis on role of moisture, temperature and humidity in safe storage of food grains and commodities. Stored grain deterioration process, physical and biochemical changes and consequences. Grain storage-types of storage structures i.e., traditional, improved and modern storage structures in current usage. Ideal seeds and commodities storage conditions.

UNIT IV
Important rodent pests associated with stored grains and their non-chemical and chemical control including fumigation of rat burrows. Role of bird pests and their management. Control of infestation by insect pests, mites and microorganisms. Preventive measures - Hygiene/sanitation, disinfestations of stores/receptacles, legal methods. Curative measures-Non-chemical control measures-ecological, mechanical, physical, cultural, biological and engineering. Chemical control-prophylactic and curative-Characteristics of pesticides, their use and precautions in their handling with special emphasis on fumigants. Integrated approaches to stored grain pest management.
Practicals

Collection, identification and familiarization with the stored grains/seed insect pests and nature of damage caused by them; detection of insect infestation in stored food grains; estimation of losses in stored food grains; determination of moisture content in stored food grains; familiarization of storage structures, demonstration of preventive and curative measures including fumigation techniques; treatment of packing materials and their effect on seed quality. Field visits to save grain campaign, central warehouse and FCI warehouses and institutions engaged in research or practice of grain storage like CFTRI, IGSMRI, Hapur etc. (only where logistically feasible)
MANAGEMENT OF SOIL PROBLEMS

MAX. MARKS

UNIT I

UNIT II
Plant responses to soil reaction, extent of damage to crops, salt tolerance of the crops.
Management and improvement of saline, alkali and acidic soils.

UNIT III
Excess soil water conditions sources and occurrences. Rainfall analysis and water balance.
Effect of excess soil water on crop growth.

UNIT IV
Management of excess soil water, water fluctuation and side movements, lowering of water table for successful crop production. Degraded soils and their rehabilitation.

Practicals :
Determination of pH, E.C., gypsum requirement for sodic soils and lime requirement for acidic soils.

Determination of specific gravity, bulk density, porosity and soil texture.

Analysis of irrigation water.

Visit to areas of problem soils.
M.Sc. (AGRICULTURE) AGRONOMY

FOURTH SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

AGROSTOLOGY AND AGRO-FORESTRY

MAX. MARKS : 100

Objective

To teach crop husbandry of different forage, fodder and agro-forestry crops/trees along with their processing.

UNIT I

Agrostology: definition and importance; principles of grassland ecology: grassland ecology – community, climax, dominant species, succession, biotype, ecological status of grasslands in India, grass cover of India; problems and management of grasslands.

UNIT II

Importance, classification (various criteria), scope, status and research needs of pastures; pasture establishment, their improvement and renovation-natural pastures, cultivated pastures; common pasture grasses.

UNIT III

Agroforestry: definition and importance; agroforestory systems, agrisilviculture, silvipasture, agrisilvipasture, agrihorticulture, aquasilviculture, alley cropping and energy plantation.

UNIT IV

Crop production technology in agro-forestry and agrostology system; silvipastoral system: meaning and importance for wasteland development; selection of species, planting
methods and problems of seed germination in agro-forestry systems; irrigation and manuring in agro-forestry systems, associative influence in relation to above ground and underground interferences; lopping and coppicing in agro-forestry systems; social acceptability and economic viability, nutritive value of trees; tender operation; desirable tree characteristics.

PRACTICAL

Preparation of charts and maps of India showing different types of pastures and agro-forestry systems

Identification of seeds and plants of common grasses, legumes and trees of economic importance with reference to agro-forestry

Seed treatment for better germination of farm vegetation

Methods of propagation/planting of grasses and trees in silvipastoral system

Fertilizer application in strip and silvipastroal systems

After-care of plantation

Estimation of protein content in loppings of important fodder trees

Estimation of calorie value of wood of important fuel trees

Estimation of total biomass and fuel wood

Economics of agro-forestry

Visit to important agro-forestry research stations

Tour & Visits
M.Sc. (AGRICULTURE) AGRONOMY

FOURTH SEMESTER

COURSE CONTENTS – DETAILED SYLLABUS

SEED PRODUCTION TECHNOLOGY

MAX. MARKS

UNIT I
Objectives of seed production technology: Role in increasing agriculture production seed its importance, in green revolution difference between grain and seed. Concept of seed quality, steps involve in seed production. Principles of seed production, concept and factors that affect the seed quality in the growing; processing and distribution of seed, seed replacement rate, multiplication rate, seed industry in India and role of various agencies, important terminology used in seed industry, breeders, foundation, and certified seed, maintenance of genetic purity.

UNIT II
Seed certification: Its concept, role & goal, necessity of seed certification, minimum seed certification standard for self and cross pollinated crops, Field and seed inspections, objectives, general principles and methods. Preparation of field reports, seed certification terms; seed certification agencies, certified and truthfully labeled seeds.

UNIT III

UNIT IV
Maintenance of nucleus and breeders seed in cross pollinated crop varieties: inbreds and no inbreds, maintenance of seed of established varieties, foundation, and certified seed production of Maize inbreds, single and double cross hybrids.

UNIT V
Hybrid seed production: of Rice, Maize, Sorghum, and Bajra, and Sunflower using male sterility systems.

UNIT VI
Latest released hybrids of Rice, Maize, Sorghum, and Bajra, their characteristic features.

UNIT VII.
Seed testing: Importance of seed testing in production of high quality seed. Techniques of seed testing; Sampling, Sample preparation for seed testing, purity testing, germination test, physiology of seed in relation to viability, vigour & dormancy of seeds, Varietal identification, through electrophoresis. Growth out test for cultivar, purity. Seed legislation and seed law enforcement including IPR, PBR in India. Recent development in seed industry. Genetic aspect of varietal deterioration.

UNIT VIII
Seed processing storage and marketing principle & practices of seed drying and seed separation selecting of sources air and screen seed cleanliness physical characteristics utilized in seed cleaning & grading; seed treatment, type of seed treatment, materials & methods of seed packing, factors affecting seed in storage, problems of stored grains pest & methods to avoid the loss. Distribution & marketing of seed.

Practicals

- Testing of seeds for their purity, viability & germination.
- Seed treatment for diseases & pests.
- Handling of crop protection equipment.
- Seed sampling & preparation of samples for seed testing.
- Evaluation of seed tests & writing of seed Testing report.
- Visit to a seed processing plant.
- To see equipment & machinery used in seed processing.
- To see cleaning grading, treating & packing of seed.
- Field trip to see production in field of maize.
- Visit to seed production plots of vegetable crop.
- Acquaintance of insecticide, fungicide & pesticide.
- Identification of important varieties of Maize, Jowar, Bajara, Paddy & Wheat.