

CBSE | DEPARTMENT OF SKILL EDUCATION

CURRICULUM FOR SESSION 2021-2022

AGRICULTURE (SUBJECT CODE – 408)

JOB ROLE: SOLANACEOUS CROP CULTIVATOR

CLASS – IX

INTRODUCTION:

Agriculture has been the prime enterprise for the National Economy of this country for centuries and that is why India is called Agrarian country. This sector also provides maximum employment to the people of this country. Agriculture is the production of food and fiber, ever since its advent. It has undergone several paradigm changes. The major landmark in Agriculture happened during 1960s when the country witnessed Green Revolution which boosted the crop production. Use of short duration crop varieties, fertilizers, pesticides and agricultural tools and expansion of area under irrigation were important interventions brought in Agriculture. Livestock is an integral part of Agriculture in India. Their by-products are used to build and maintain soil fertility along with plant protection. The animal products such as meat, milk and eggs are the source of nutrients in human diet as well.

Several emerging dimensions of contemporary Agriculture such as organic agriculture and animal husbandry practices are now getting attention. Food processing, value addition and preservation have been the focus of policies formation in recent times which are helpful in minimizing the wastage in Agriculture. This is helping in better income realizing through marketing of value added products. The income from Agriculture can also be increased by associating in subsidiary enterprises such as mushroom production, bio-pesticides, bee-keeping, vermi-culture etc.

COURSE OBJECTIVES:

The board objectives of teaching Agriculture at Senior Secondary level are:

1. To help the students to comprehend the facts and importance of Agriculture.
2. To expose the students to crop production, animal husbandry, horticulture etc.
3. To familiarize the students with waste management and physical environment in Agriculture.
4. To expose the students to find better income and avenue generating avenue of agriculture and its associated activities.

CURRICULUM:

This course is a planned sequence of instructions consisting of Units meant for developing employability and Skills competencies of students of Class IX and X opting for Skills subject along with other subjects.

The unit-wise distribution of periods and marks for Class IX is as follows:

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CLASS – IX (SESSION 2021-2022)

Total Marks: 100 (Theory-50 + Practical-50)

	TERM	UNITS	NO. OF HOURS for Theory and Practical 200		MAX. MARKS for Theory and Practical 100
Part A	Employability Skills				
	TERM I	Unit 1 : Communication Skills-I	10	5	
		Unit 2 : Self-Management Skills-I	10		
		Unit 3 : ICT Skills-I	10		
	TERM II	Unit 4 : Entrepreneurial Skills-I	15	5	
		Unit 5 : Green Skills-I	05		
		Total	50	10	
Part B	Subject Specific Skills		Theory (In Hours)	Practical (In Hours)	Marks
	TERM I	Unit 1: Introduction to Horticulture	20	10	20
		Unit 2: Seed selection and seeding production	30	15	
	TERM II	Unit 3: Soil preparation and transplanting	25	15	20
		Unit 4: Nutrient management in vegetable crops	20	15	
			Total	95	55
Part C	Practical Work				
		Practical Examination			15
		Written Test			10
		Viva Voce			10
		Total			35
Part D	Project Work / Field Visit				
		Practical File / Student Portfolio			10
		Viva Voce			05
		Total			15
		GRAND TOTAL	200	100	

DETAILED CURRICULUM/TOPICS FOR CLASS IX:

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-I	10
2.	Unit 2: Self-management Skills-I	10
3.	Unit 3: Basic Information and Communication Technology Skills-I	10
4.	Unit 4: Entrepreneurial Skills-I	15
5.	Unit 5: Green Skills-I	05
	TOTAL	50

NOTE: For Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

Part-B – SUBJECT SPECIFIC SKILLS

- Unit 1: Introduction to Horticulture
- Unit 2: Seed selection and seedling production
- Unit 3: Soil preparation and transplanting
- Unit 4: Nutrient management in vegetable crops

UNIT 1: INTRODUCTION TO HORTICULTURE

LEARNING OUTCOMES	THEORY	PRACTICAL
1. Describe the present status and prospects of Horticulture in India	1. Define Horticulture 2. Importance of horticulture in daily life 3. Prospects of Horticulture in India	1. Enlist the major horticultural crops in India and your locality
2. Classify and categorize horticulture crops	1. Branches of horticulture 2. Different horticultural crops and their major growing regions in India	1. Draw a diagram depicting the classification of horticultural crops
3. Carry out important horticultural operations	1. Horticultural operations viz. training, pruning and transplanting	1. Visit to a nursery/ Horticulture farm for Demonstration of pruning, Training and transplanting of seedlings 2. Practice of pruning
4. Describe olericulture and importance of vegetable in human diet	1. Olericulture 2. Importance of vegetable in human Diet	1. Demonstrate the availability of nutrients through vegetables using charts/pictures

UNIT 2: SEED SELECTION AND SEEDLING PRODUCTION

LEARNING OUTCOMES	THEORY	PRACTICAL
1. Select the seed & procurement of seed	<ol style="list-style-type: none"> 1. Various characteristics of seed with their suitability to the location 2. Characteristics of healthy varieties 3. Demand of various varieties in the market 	<ol style="list-style-type: none"> 1. Identify various and appropriate variety (including hybrid) of Solanaceous crops 2. Identify various vendors / suppliers (including government nurseries /department) of the seed that are certified 3. Procure seeds in appropriate quantity 4. Identify market rates for Solanaceous crop seeds (such as tomato, capsicum,)
2. Prepare seed bed	<ol style="list-style-type: none"> 1. Preparing the site for seed bed 2. Soil sterilization – solarisation and chemical treatment 3. Seed treatment techniques with chemicals 	<ol style="list-style-type: none"> 1. Demonstration of the procedure of preparation of various types of seed beds – raised, sunken, level
3. Plant seeds on a seed bed or containers	<ol style="list-style-type: none"> 1. Factors affecting seed germination – seed viability, seed pests and diseases, etc. 2. Factors to be considered while planting seeds on seed bed and polybags/ trays – time, depth, etc. 	<ol style="list-style-type: none"> 1. Estimating how much seed is required to grow a given number of area for each crop 2. Planting seeds in the poly bags/trays to aid in the cultivation of Solanaceous crops 3. Counting the number of seeds that have germinated so as to assess mortality rate
4. Manage nursery for Solanaceous crops cultivation	<ol style="list-style-type: none"> 1. Advantages and disadvantages of soil nursery or tray method 2. Depth and spacing of planting seedlings in case of soil nursery & tray for Solanaceous crops 	<ol style="list-style-type: none"> 1. Identify soil nursery or tray method for growing seedlings 2. Plant the seed at correct depth and appropriate spacing 3. Water the seedling at appropriate time with appropriate method

UNIT 3: SOIL PREPARATION AND TRANSPLANTING

LEARNING OUTCOMES	THEORY	PRACTICAL
1. Prepare Soil for transplanting	<ol style="list-style-type: none"> 1. Importance of Soil testing 2. Various authorized centers of soil testing 3. Level of soil tillage including depth of ploughing and appropriate equipments for plugging 4. Distance between ridges and furrows 5. Requirement of farm yard manure and fertilizer in appropriate quantity 	<ol style="list-style-type: none"> 1. Enlist the authorised soil testing centres in your state. 2. Prepare the land with ridges and furrows 3. Application of farm yard manure and fertilizers
2. Apply transplanting of the seedlings	<ol style="list-style-type: none"> 1. Appropriate time for planting by taking in to account of soil, climatic conditions 2. Planting equipments (shovel or trowel) 3. Spacing between rows and plants 4. Advantages and disadvantages of intercropping and types of plant to be intercropped 5. Advantages of crop rotation 	<ol style="list-style-type: none"> 1. Demonstration Transplanting of seedling at appropriate stage and spacing

UNIT 4: NUTRIENT MANAGEMENT IN VEGETABLE CROPS

LEARNING OUTCOMES	THEORY	PRACTICAL
1. Describe the Macro & micronutrients in soil and its testing	<ol style="list-style-type: none"> 1. Elements/components under macro & micro nutrients 2. Function of each macro & micro nutrient 3. Advantages & disadvantages of particular macro & micro nutrients 	<ol style="list-style-type: none"> 1. Understand the basic macro & micro nutrients with their functions 2. Undertake testing of soil to determine its nutrient and fertilizer needs from authorized laboratory 3. Collect soil testing report
2. Apply manures, fertilizers and biofertilizers	<ol style="list-style-type: none"> 1. Types of organic manures (farm yard manure, compost, green manure, vermicompost), fertilizers and biofertilizers 2. Methods of application of manures, fertilizers and biofertilizers 3. Time of application of manures, fertilizers and biofertilizers 	<ol style="list-style-type: none"> 1. Visit to a Vegetable farm for applying manures and fertilizers as per the recommended dose to various vegetables