





Soybean cultivator

SYLLABUS/ CURRICULUM

This program is aimed at training candidates for the job of a "Soybean Cultivator", in the "Agriculture" Sector/Industry and aims at building the following key competencies amongst the learner.

1.	Familiarization about the selection of crop variety as per available soil and climatic conditions and Preparation of seed for Soybean cultivation	6. Understanding the water needs of soybean and Irrigation management in soybean crop
2.	Understanding the methods of Preparation of land and perform sowing for Soybean cultivation	7. Knowledge of the stage of harvest and Manage harvest and post harvest in Soybean cultivation
3.	Knowledge of Macro and micro nutrients and integrated nutrient management for soybean crop	8. Understanding the Basic farm management
4.	Understanding the methods to Curb weed in soybean crop	9. Knowledge of marketing and assimilating market information
5.	Familiarization with the pests and diseases and Integrated pest and disease management in soybean crop	10. knowledge of Maintaining Health and safety at the workplace

This course encompasses 10 out of 10 National Occupational Standards (NOS) of "Soybean Cultivator" Qualification Pack issued by "Agriculture Skill Council of India".

S. No	Topic/Module	Duration (in Hours)	Key Learning Outcomes	Corresponding NOS Code
1	Selection of variety as per available agro- climatic conditions and Prepare seed for Soybean cultivation	15	 Agro climatic zones suitable for soybean cultivation Climatic conditions of the region of soybean cultivation Soil type of the field Prevalent diseases and pests in the area Suitable time to plant soybean based on the precipitation, humidity, etc Identifying appropriate Variety and 	AGR / N 0201







S. No	Topic/Module	Duration (in Hours)	Key Learning Outcomes	Corresponding NOS Code
			 knowledge of their Characteristics like resistance and susceptibility to various pests and diseases and various biotic and abiotic stresses Preparation of Seed for soybean cultivation Procure seed of suitable variety Treat ing seed Familiarization with Conducting of Germination test Knowledge of Health and safety precautions during seed treatment 	
2	Prepare land and perform sowing for Soybean cultivation	20	 Knowledge of Preparation of the seedbed for soybean cultivation with proper tilth and to prepare level field Knowledge of application of manures and fertilizers for proper utilization and maintaining the required pH of the soil. Understanding on the methods of Sowing of seeds at optimum seed rates for various varieties at desired planting depth and di stance Familiarization with the usage of equipment for sowing and intercropping crops like maize, pigeon pea, etc 	AGR / N 0202







S. No	Topic/Module	Duration (in Hours)	Key Learning Outcomes	Corresponding NOS Code
3.	Manage macro and micro nutrient and integrated nutrient management Practice in soybean crop	20	 Understanding the procedures of Soil sampling Knowledge of various macro and micro nutrients that are analyzed. Knowledge of packing of soil samples Understanding testing results of various nutrients. Understanding the Components of reports and recommendations and follow up required Application of organic and inorganic fertilizers as per soil test Knowledge of Properties of various micro nutrients, organic and inorganic fertilizers Understanding the methods to ascertain the right organic and inorganic fertilizers to be applied Learn to apply the fertilizers in right dosage, time and intervals of crop growth Learn to select appropriate methods of application Learn to select appropriate times of application 	AGR / N 0108
4.	Weed Management in soybean crop	10	 Knowledge of Types of weeds that will affect soybean field and stages of crop –weed competition Understand use of pre sowing herbicides that are required to be incorporated in soil during land preparation so that land does not become congenial to weeds Knowledge of appropriate intercrops varieties that will smoother weeds Familiarize with the use of appropriate herbicides during pre emergence and post emergence stage of crop and methods of application and time Knowledge of use of mechanical weeding equipments like hand tools, hand hoes, power weeders and tractor drawn weeders 	AGR/N 0109







5.	Integrated pests and diseases management in soybean crop	20	 Understand Importance of control of pests and diseases in soybean crop. Understand Various types pests affecting soybean crop To know identification of various pests in the field by observing the morphological and feeding characters of insect pests Understand Identification of stages of crop growth when the pest attacks , pest behavior and specific part of the crop affected To understand preventive ,cultural ,mechanical and direct pesticide application methods for control of pests Understand about various biological methods of pest control in soybean Knowledge of identification of various diseases affecting soybean crop Understand identification of various stages of crop growth and part of plant when the crop is vulnerable to diseases Identification of the symptoms of the diseases on plant parts and mode of disease transfer Understand designing of control measures including chemical and preventive . Integrated pest Management Techniques including cultural, mechanical, biological and fungicidal method. Understand selection of appropriate pesticides for control of pests and diseases , their correct doses and time of application The preventive techniques should include pheromone traps, bird perches. Sticky traps, etc. as per varietal character. 	AGR/N 0110
6.	Irrigation management in soybean crop	05	 Understanding the Interaction affects of the soil type, level of the land and water availability on the crop growth and its yield Understanding the procedure to find out the right amount of water required based on the physiological need of the crop, soil moisture and climate of the place of cultivation Familiarization with the Timing and method of irrigation appropriate for the field crop and soil conditions 	AGR/N 0111







			 Use appropriate micro irrigation systems, drip and sprinkler, wherever possible and applicable Ascertain use of appropriate method of Drainage of water at all stages and avoid water loss through seepage 	
7.	Management of harvest and post harvest in soybean crop	10	 Understand the most optimum time and stage of harvesting of the crop Harvest the crop at the appropriate stage - when the pod is golden yellow, black or gray coloured and when the significant percentage of the crop has turned appropriate colour Know the methods of determining the moisture content (usually 15-17%) in the pods prior to harvest Familiarize with the use of reapers and combine harvesters in large holding and manual harvesting in smaller holdings Understand post harvest management techniques Familiarize to Perform threshing carefully without damaging seed coat and use of appropriate threshing equipments Know the various methods of drying seeds to regulate moisture content including the use of hot air speed driers wherever applicable Learn methods to maintain ideal storage conditions Understand the methods to manage storage pests and Treating seeds with appropriate chemicals prior to storage 	AGR/N 0203
8.	Basic Farm Management	10	 Understanding and decision making on crop planning to choose right crop and varieties based on agro-climatic conditions of the region soil sampling for testing , and perform intercropping and crop rotation with suitable crops and to achieve maximum economic advantages; Familiarization with keeping of crop records on crop production activity, weeds and insect pests and disease calendars Familiarize with financial management 	AGR/N 9901







			•	procedures by keeping records on total cost of cultivation and investment and expenditures. Know about the Govt. schemes for crop based subsidies and other programs Understanding market interface like nearest markets, mandis and compare market rates of produce.	
9.	Assimilating Market information	05	•	Understand different sources of information available at village level, market level, at Mandis, through Media sources like Radio ,TV, Magazines, Newspapers SMS, etc. Understanding to analyse information by ascertaining the methods of collecting the information like through reading of published reports, attending seminars , training programs organized by Govt. agencies, and analyzing and documentation of the information for future use Familiarize with Utilizing the market and other information for decision making on cost effective and quality purchases of inputs and area to be sown under specific crop for maximum benefits Understanding making effective decisions on pre-harvest Management aspects like seed preparation, land preparation, crop nutrition, pest ,diseases and weed control. Knowledge of making post harvest decisions like drying, grading, bagging, transporting, processing, and storage Understanding marketing parameters like when to sell, where to sell, what quantity to sell, and to whom to sell which will lead to profit	AGR/N 9902
10.	Maintain Health and safety at the workplace	10	•	Knowledge of maintaining clean and efficient work place by adopting basic safety checks before operation of all machinery and vehicles Understanding the use of protective clothing and other gadgets Understanding the safety measures given on	AGR/N 9903



Total Programme Duration: 125 Hours

(This syllabus/ curriculum has been approved by Agriculture Skill Council of India (ASCI))