Model Curriculum

QP Name: Jute and Mesta Cultivator

QP Code: AGR/Q0204

Version: 2.0

NSQF Level: 3

Model Curriculum Version: 1.0

Agriculture Skill Council of India || Agriculture Skill Council of India (ASCI), 6th Floor, GNG Tower, Plot No. 10, Sector - 44

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Training Parameters

Sector	Agriculture
Sub-Sector	Agriculture Crop Production
Occupation	Field Crops Cultivation (Cash Crops)
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6111.0200
Minimum Educational Qualification and Experience	8th grade pass with 2 years of relevant experience OR Grade 8 pass and pursuing continuous schooling in regular school with vocational subject OR 5th grade pass with 5 years of relevant experience OR Previous relevant qualification of NSQF Level 2 with 1 year of relevant experience OR Previous relevant qualification of NSQF Level 2.5 with 6 months of relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	29/03/2023
Next Review Date	29/03/2026
NSQC Approval Date	29/03/2023
QP Version	2.0
Model Curriculum Creation Date	29/03/2023
Model Curriculum Valid Up to Date	29/03/2026
Model Curriculum Version	1.0
Minimum Duration of the Course	270 Hours
Maximum Duration of the Course	270 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Explain the criteria of selecting the site, preparing the land and sowing jute and mesta seeds.
- Elucidate ways to maintain the jute and mesta plants.
- Demonstrate the process of performing harvesting and post-harvest management of jute and mesta crops.
- Demonstrate various practices to ensure health and safety at work.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	**05:00**	**00:00**	**0:00**	**00:00**	**05:00**
Module 1: Introduction to the role of a Jute and Mesta Cultivator	05:00	00:00	0:00	00:00	05:00
AGR/N0211: Select the site, prepare the land and sow jute and mesta seeds **NOS Version- 2.0** **NSQF Level- 3**	**20:00**	**35:00**	**0:00**	**00:00**	**55:00**
Module 2: Process of selecting the site, preparing the land and sowing jute and mesta seeds	20:00	35:00	0:00	00:00	55:00
AGR/N0212: Maintain the jute and mesta plants **NOS Version- 2.0** **NSQF Level- 3**	**30:00**	**30:00**	**0:00**	**00:00**	**60:00**
Module 3: Process of maintaining the jute and mesta plants	30:00	30:00	0:00	00:00	60:00
AGR/N0213: Perform harvesting and post-harvest management of jute and mesta crops **NOS Version- 2.0** **NSQF Level- 3**	**15:00**	**15:00**	**0:00**	**00:00**	**30:00**

Module / NOS					
Module 4: Process of performing harvesting and post-harvest management of jute and mesta crops	15:00	15:00	0:00	00:00	30:00
AGR/N0220: Market jute and mesta and maintain records **NOS Version- 1.0** **NSQF Level- 3**	**15:00**	**15:00**	**0:00**	**00:00**	**30:00**
Module 5: Process of marketing jute and mesta and maintaining records	15:00	15:00	0:00	00:00	30:00
AGR/N9903 Maintain health and safety at the workplace **NOS Version- 3.0** **NSQF Level- 4**	**05:00**	**25:00**	**0:00**	**00:00**	**30:00**
Module 6: Hygiene and cleanliness	02:00	10:00	0:00	00:00	12:00
Module 7: Safety and emergency procedures	03:00	15:00	0:00	00:00	18:00
DGT/VSQ/N0101: Employability Skills (30 Hours) **NOS Version- 1.0** **NSQF Level- 2**	**30:00**	**00:00**	**0:00**	**00:00**	**30:00**
Module 8: Employability Skills	30:00	00:00	0:00	00:00	30:00
Total Duration	**120:00**	**120:00**	**0:00**	**00:00**	**240:00**
OJT: 30 Hours					

Module Details

Module 1: Introduction to the role of a Jute and Mesta Cultivator
Bridge Module

Terminal Outcomes:

- Discuss the job role of a Jute and Mesta Cultivator.

Duration: 05:00	Duration: 0:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the size and scope of the agriculture industry and its sub-sectors. - Discuss the role and responsibilities of a Jute and Mesta Cultivator. - Identify various employment opportunities for a Jute and Mesta Cultivator.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of selecting the site, preparing the land and sowing jute and mesta seeds
Mapped to AGR/N0211 v2.0

Terminal Outcomes:

- Explain the process of selecting the site for jute and mesta cultivation.
- Describe the process of preparing the land for jute and mesta cultivation.
- Demonstrate the process of sowing the jute and mesta seeds.

Duration: 20:00	Duration: 35:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
- State the appropriate agro-climatic conditions suitable for jute and mesta cultivation. - State the appropriate types of soil suitable for jute and mesta cultivation. - Explain the use of the necessary tools, equipment and machineries required for jute and mesta cultivation. - Describe the process of collecting soil samples and the importance of getting the samples tested by a government-approved soil testing laboratory. - Elucidate the appropriate treatments to be applied to the soil to improve its fertility. - Describe the process of preparing the field for jute and mesta cultivation. - Explain the importance of ensuring effective drainage and jute and mesta fields. - Explain different types of irrigation systems and the suitable ones for jute and mesta fields. - Discuss the different varieties of jute and mesta and the appropriate seasons for their sowing. - Explain the importance of procuring the planting material from reliable sources. - Describe the appropriate seed treatment methods.	- Demonstrate how to remove any weeds, debris and waste material from the field. - Demonstrate the process of carrying out ploughing, harrowing and planking in the field for the recommended number of times to break soil clods and achieve a fine tilth. - Demonstrate the process of applying the necessary treatment to the soil as per the recommendations of the soil-testing laboratory, e.g. compost to increase the percentage of organic matter. - Demonstrate the process of applying the basal dose of manure to improve the physical properties of the soil. - Show how to create drainage channels in the field to ensure effective water drainage. - Demonstrate the process of installing the appropriate irrigation system in the field. - Show how to treat the seeds following an appropriate seed treatment method before sowing. - Demonstrate the process of sowing seeds in the field manually or using an appropriate seed sowing equipment at the recommended seed rate. - Demonstrate the process of applying the recommended organic and inorganic fertilizers in appropriate

• Describe different seed sowing methods and the use of relevant seed sowing equipment. • Explain the importance of maintaining the required sowing depth and plant and row spacing to allow optimum conditions for seed germination and growth of seedlings. • Elucidate the immediate care to be provided to jute and mesta seeds after sowing. • Elucidate the importance and process of carrying out thinning in jute and mesta fields.	quantities in the field and carry out irrigation after sowing. • Demonstrate the process of carrying out thinning after the recommended number of days following sowing.

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Rakes, Weeder, FYM, Lime/ Quicklime Powder (Soil amendment), SSP, Sickle, Fire Extinguisher, Bucket, Micronutrients, Urea, Knapsack Sprayer, MOP, Power tiller, Khurpi, Jute & Mesta Seeds, Pesticide, Fawda/ Kudal

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Module 3: Process of maintaining the jute and mesta plants
Mapped to ARG/N0212 v2.0

Terminal Outcomes:

- Describe the process of performing nutrient and irrigation management of jute and mesta.
- Describe the process of performing integrated pest and disease management of jute and mesta.
- Demonstrate the process of carrying out pruning and trimming.
- Explain the process of performing weed management of jute and mesta.

Duration: 30:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
- State the nutrient requirements of jute and mesta crops. - Explain the effective use of different types of organic and inorganic fertilizers. - Describe the different methods of applying fertilizers and the use of relevant tools and equipment. - Elucidate the benefits and process of carrying out intercropping. - Discuss the recommended soil conservation practices. - State the the water requirements of jute and mesta crops. - State the recommended irrigation schedule for different jute and mesta varieties. - Explain the importance of carrying out irrigation in the field according to the rainfall and stages of the crop's growth. - State the recommended measures to be followed to avoid under and over-irrigation. - Elucidate the importance and process of draining out excess water from jute and mesta fields to ensure no waterlogging. - Explain the relevant preventive measures to be followed to protect the jute and mesta crops from pest and disease infestation.	- Demonstrate how to prepare organic fertilizers such as farmyard manure and vermicompost, and prepare the mixture of liquid fertilizers for application in the field. - Demonstrate the process of applying organic and inorganic fertilizers in the field, using them in the recommended quantity according to the stages of growth of the jute and mesta crops. - Show how to use the appropriate tools and equipment for fertilization application. - Demonstrate the process of carrying out intercropping with the recommended crops for the best utilization of soil nutrients. - Demonstrate the process of carrying out irrigation in the field according to the rainfall and stages of the growth of jute and mesta crops. - Demonstrate the process of applying the recommended treatment in the appropriate dose to jute and mesta to remove pests and diseases. - Prepare a sample record of the use of pesticides. - Demonstrate the process of carrying out trimming and pruning using the appropriate tools and implements, ensuring not to cause damage to the stem. - Show how to prepare compost,

- Elucidate the importance and process of adopting the natural enemies of crop pests.

- List the common insect-pests and diseases of jute and mesta and their symptoms.

- Elucidate the importance and process of determining the economic threshold level of pest infestation and initiating the appropriate remedial action to prevent the pest population from reaching the Economic Injury Level (EIL).

- Explain the relevant Integrated Pest and Disease Management (IPDM) techniques to be followed for jute and mesta crops.

- Explain the recommended treatment to be used to treat pest and disease infestation in jute and mesta crops.

- Describe the process of preparing pesticides for application and the use of relevant plant protection equipment.

- Discuss the recommended safety practices to be followed while applying pesticides.

- Explain the importance of maintaining the record of the use of pesticides and using them in the recommended quantities.

- Describe the recommended combination of biological, mechanical and chemical control methods to be followed for effective pest and disease prevention.

- Explain how to identify the need for trimming and pruning the jute and mesta plants.

- Explain the use of plant residue from trimming and pruning to prepare compost, manure, etc.

- List different types of weeds found in jute and mesta fields.

- Explain the importance of checking for weed infestation regularly.

- manure, etc. using the plant residue from trimming and pruning.

- Show how to remove weeds manually using the appropriate tools and implements, retaining the weeds of importance during the weeding process.

- Demonstrate how to prepare the recommended herbicide/ bio-herbicide solution suitable to the crop.

- Demonstrate the process of applying the recommended herbicide/ bio-herbicide safely in the recommended dose using the appropriate equipment.

• Describe the weeding process and the use of appropriate tools and implements.	
• Describe different types of intercultural and mechanical methods for effective weed control.	

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Rakes, Weeder, FYM, Lime/ Quicklime Powder (Soil amendment), SSP, Sickle, Fire Extinguisher, Bucket, Micronutrients, Urea, Knapsack Sprayer, MOP, Power tiller, Khurpi, Jute & Mesta Seeds, Pesticide, Fawda/ Kudal

Module 4: Process of performing harvesting and post-harvest management of jute and mesta crops
Mapped to AGR/N0213 v2.0

Terminal Outcomes:

- Demonstrate the process of harvesting the jute and mesta crops.
- Demonstrate the process of performing post-harvest management of jute and mesta crops.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the maturity indices of jute and mesta crops. - State the appropriate time and season for harvesting jute and mesta crops. - Explain the use of appropriate harvesting tools and implements. - Describe the process of harvesting jute and mesta crops and collecting them from the field for post-harvest management. - Describe the relevant post-harvest procedures to be performed before retting. - Describe the process of carrying out retting to facilitate the separation of the fibre from the stem and different retting methods, e.g. stem, ribbon or dry retting. - Explain the relevant advance retting technology. - List the appropriate requirement for carrying out retting, such as clean water and an appropriate temperature. - Describe the methods of extracting jute and mesta fibre, e.g. Single plant extraction method or Beat-break-jerk method. - Explain how to clean the extracted fibre and the importance of drying it under the sun for the recommended duration. - State the appropriate parameters for grading the extracted fibre, e.g.	- Demonstrate the process of harvesting the jute plants by uprooting them in the flooded lands. - Demonstrate the process of carrying out retting to facilitate the separation of the fibre from the stem, following the recommended retting method, e.g. stem, ribbon or dry retting. - Show how to extract the jute and mesta fibre following an appropriate method, e.g. Single plant extraction method or Beat-break-jerk method. - Demonstrate the use of appropriate weighing tools and equipment and how to weigh jute and mesta accurately. - Show how to grade the fibre on the applicable parameters, e.g. strength, root content, fineness, density, etc. - Demonstrate how to create bales of the extracted fibre and pack them using the appropriate packing material. - Show how to pack the fibre using the appropriate packing material.

strength, root content, fineness, density, etc.	
• State the appropriate packing material for packing jute and mesta fibre.	
• Describe the process of testing jute fibre on the relevant parameters, such as strength, Bulk-Density, colour, fineness, etc.	
• Describe the process of grade-wise baling and packing of jute.	
• Explain the use of bale press machine.	
• State the appropriate conditions required to store raw jute and mesta.	

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Rakes, Weeder, FYM, Lime/ Quicklime Powder (Soil amendment), SSP, Sickle, Fire Extinguisher, Bucket, Micronutrients, Urea, Knapsack Sprayer, MOP, Power tiller, Khurpi, Jute & Mesta Seeds, Pesticide, Fawda/ Kudal

Module 5: Process of marketing jute and mesta and maintaining records
Mapped to AGR/N0220 v1.0

Terminal Outcomes:

- Elucidate ways to market jute and mesta.
- Explain the process of maintaining records.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the concept and benefits of Minimum Support Price (MSP). - State the MSP for jute and mesta and the relevant nodal agency for conducting MSP purchase. - List various terms used in the Jute and mesta trading sector. - Explain the identification and quality parameters of jute fibre. - State the relevant buyers of jute and mesta fibre, such as jute mills and traders. - Explain the process of negotiating with the buyers. - the appropriate mode of transportation for jute and mesta fibre - State the use of different e-payment methods. - Explain the importance of maintaining the backup of records.	- Demonstrate how to process the payments using the buyer-preferred e-payment method. - Show how to calculate the benefit-cost (B:C) ratio. - Demonstrate the process of maintaining the manual and/or electronic record of sales and payments using the physical registers and/or the relevant computer application. - Demonstrate the process of maintaining the electronic backup of records to protect against their accidental loss.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Rakes, Weeder, FYM, Lime/ Quicklime Powder (Soil amendment), SSP, Sickle, Fire Extinguisher, Bucket, Micronutrients, Urea, Knapsack Sprayer, MOP, Power tiller, Khurpi, Jute & Mesta Seeds, Pesticide, Fawda/ Kudal	

Module 6: Hygiene and cleanliness

Mapped to NOS AGR/N9903 v3.0

Terminal Outcomes:

- Discuss how to adhere to personal hygiene practices.
- Demonstrate ways to ensure cleanliness around the workplace.

Duration: 02:00	Duration: 10:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the requirements of personal health, hygiene and fitness at work. - Describe common health-related guidelines laid down by the organizations/ Government at the workplace - Explain the importance of good housekeeping at the workplace. - Explain the importance of informing the designated authority on personal health issues related to injuries and infectious diseases.	- Demonstrate personal hygiene practices to be followed at the workplace. - Demonstrate the correct way of washing hands using soap and water, and alcohol-based hand rubs. - Demonstrate the steps to follow to put on and take off a mask safely. - Show how to sanitize and disinfect one's work area regularly. - Demonstrate adherence to the workplace sanitization norms. - Show how to ensure the cleanliness of the work area.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, Cleaning Equipment and Materials, Sanitizer, Soap, Mask	

Module 7: Safety and emergency procedures
Mapped to NOS AGR/N9903 v3.0

Terminal Outcomes:

- Describe how to adhere to safety guidelines.
- Show how to administer appropriate emergency procedures.

Duration: 03:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- List the Personal Protective Equipment (PPE) required at the workplace. - Describe the commonly reported hazards at the workplace. - Describe the hazards caused due to chemicals/pesticides/fumigants. - Describe the basic safety checks to be done before the operation of any equipment/machinery. - Describe the common first aid procedures to be followed in case of emergencies. - State measures that can be taken to prevent accidents and damage s at the workplace. - Explain the importance of reporting details of first aid administered, to the reporting officer/doctor, in accordance with workplace procedures - State common health and safety guidelines to be followed at the workplace.	- Check various areas of the workplace for leakages, water-logging, pests, fire, etc. - Demonstrate how to safely use the PPE and implement it as applicable to the workplace. - Display the correct way of donning, doffing and discarding PPE such as face masks, hand gloves, face shields, PPE suits, etc. - Sanitize the tools, equipment and machinery properly. - Demonstrate the safe disposal of waste. - Demonstrate procedures for dealing with accidents, fires and emergencies. - Demonstrate emergency procedures to the given workplace requirements. - Demonstrate the use of emergency equipment in accordance with manufacturers' specifications and workplace requirements. - Demonstrate the administration of first aid. - Prepare a list of relevant hotline/ emergency numbers
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, First Aid Kit, Equipment used in Medical Emergencies.	

Module 8: Employability Skills

Mapped to NOS DGT/VSQ/N0101 v1.0

Duration: 30:00
Key Learning Outcomes

Introduction to Employability Skills Duration: 1 Hour

After completing this programme, participants will be able to:
1. Discuss the importance of Employability Skills in meeting the job requirements

Constitutional values - Citizenship Duration: 1 Hour

2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
3. Show how to practice different environmentally sustainable practices

Becoming a Professional in the 21st Century Duration: 1 Hours

4. Discuss 21st century skills.
5. Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations.

Basic English Skills Duration: 2 Hours

6. Use appropriate basic English sentences/phrases while speaking

Communication Skills Duration: 4 Hour

7. Demonstrate how to communicate in a well -mannered way with others.
8. Demonstrate working with others in a team

Diversity & Inclusion Duration: 1 Hour

9. Show how to conduct oneself appropriately with all genders and PwD
10. Discuss the significance of reporting sexual harassment issues in time

Financial and Legal Literacy Duration: 4 Hours

11. Discuss the significance of using financial products and services safely and securely.
12. Explain the importance of managing expenses, income, and savings.
13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

Essential Digital Skills Duration: 3 Hours

14. Show how to operate digital devices and use the associated applications and features, safely and securely
15. Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely

Entrepreneurship Duration: 7 Hours

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

Customer Service Duration: 4 Hours

17. Differentiate between types of customers
18. Explain the significance of identifying customer needs and addressing them

19. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for apprenticeship & Jobs Duration: 2 Hours
20. Create a biodata
21. Use various sources to search and apply for jobs
22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview
23. Discuss how to search and register for apprenticeship opportunities

Module 9: On-the-Job Training

Mapped to Jute and Mesta Cultivator

Mandatory Duration: 30:00	Recommended Duration: 00:00
Location: On-Site	

Terminal Outcomes

- Explain the use of the necessary tools, equipment and machineries required for jute and mesta cultivation.
- Carry out ploughing, harrowing and planking in the field for the recommended number of times to break soil clods and achieve a fine tilth.
- Create drainage channels in the field to ensure effective water drainage.
- Prepare the recommended herbicide/ bio-herbicide solution suitable to the crop.
- Harvest the jute plants by uprooting them in the flooded lands.
- Carry out intercropping with the recommended crops for the best utilization of soil nutrients.
- Extract the jute and mesta fibre following an appropriate method, e.g. Single plant extraction method or Beat-break-jerk method
- Process the payments using the buyer-preferred e-payment method.
- Prepare sample manual and/or electronic record of sales and payments using the physical registers and/or the relevant computer application.

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	*Specialization*	*Years*	*Specialization*	
10th Class	Class 10th	7	Agriculture Crop Production	0		Jute & Mesta Cultivator with 7 Years' experience with 10th Pass. Experience certificate issued by BDO/ Agriculture Officer/Head of Gram panchayat/ Loan disbursing bank or financial institution on official letter Head
12th Class	Class 12th	4	Agriculture Crop Production	0		Ex-Service-Man including Ex-Paramilitary personnel: Minimum Qualification is 10+2 with an Honourable Discharge/ Pension. SSC would consider a relaxation/waiver of sector specific experience on case-to-case basis.
Diploma in Agriculture	Diploma in Agriculture	3	Agriculture Crop Production	0		
Graduate	Graduate	2	Agriculture Crop Production	0		For school Program minimum qualification of Trainer should be Graduate. Their Teaching experience will be considered industry experience
Graduate	Graduate (Agriculture / Horticulture/ Forestry)	0.5	Agriculture Crop Production	0		

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Jute and Mesta Cultivator**", mapped to QP: "AGR/Q0204, v2.0", Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". The minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites					
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/ Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduation	Agriculture/ Botany/ Forestry/ Agronomy and related streams	5	Agriculture Crop production and post-production practices	0		Practical skills and knowledge required in Jute & Mesta Production practices
Post- graduation	Agriculture/ Botany/ Forestry/ Agronomy and related streams	2	Agriculture Crop production and post-production practices	0		Practical skills and knowledge required in Jute & Mesta Production practices
PhD	Agriculture/ Botany/ Forestry/ Agronomy and related streams	1	Agriculture Crop production and post-production practices	0		Practical skills and knowledge required in Jute & Mesta Production practices

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Jute and Mesta Cultivator**", mapped to QP: "AGR/Q0204, v2.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 80%.

Assessment Strategy

Assessment System Overview

In Agriculture Sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empaneled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. <u>Multiple Choice Questions</u>: To assess basic knowledge (Objective/Subjective)
2. <u>Viva:</u> To assess awareness on processes (Oral and/or written questioning)
3. <u>Practical:</u> To evaluate skills and identify competencies. (Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real-time' internet-based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on the ground through qualified and ToA certified assessors.

An individual must have adequate knowledge and skills to perform a specific task, weightage for different aspects of the assessment is given as follows:

- Multiple Choice Questions: 20%-30%, depending on the specific QP
- Viva: 20%
- Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)
- Assessment will be carried out by certified assessors through empaneled assessment partners. Based on the results of the assessment; ASCI will certify the learners/candidates

Testing Environment

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at the assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of the Internet.

- Multilingual assessments (ASCI is conducting the assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback stored digitally on the cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle- screen/copy-paste disabled, etc.
- Android-based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention

- Assessment will normally be fixed for a day after the end date of the training / within 7 days of completion of training.

- Assessment will be conducted at the training venue

- The room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities

- Question bank of theory and practice will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple-choice questions, pictorial questions, etc. which will test the trainee on his theoretical knowledge of the subject.

- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated

Assessment			
Assessment Type	Formative or Summative	Strategies	Examples
Theory	Summative	MCQ/Written exam	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks/Demonstration	Practical application /Demonstration /Application tasks
Viva	Summative	Questioning and Probing	Mock interviews on the usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling the job situation

The question paper pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

Assessment Quality Assurance framework

Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi-dimensional evaluation of candidates covering language, cognitive skills, behavioural traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by a theoretical understanding of the testing objectives and published research about the item types and constructs that have shown statistical validity towards measuring the construct. Test item types that have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of the testing objectives of each question and other quality measures.

Type – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation-based questions.

Practical Skills - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

Type – Standardized rubrics for evaluation against a set of tasks in a demo/practical task

Viva Voce - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

Type – Procedural questions, dos and don'ts, subjective questions to check the understanding of practical tasks.

The assessor has to go through an orientation program organized by the Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. The assessor shall be given a NOS and PC level overview of each QP as applicable. The overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework that will maintain the standardization of the marking scheme.

Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidence collected by AAs and ASCI are:

- GeoTagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidence (photos and videos) to the assessor one day before the assessment. The list is mentioned below:
  - Signed Attendance sheet
  - Assessor feedback sheet
  - Candidate feedback sheet

- o Assessment checklist for assessor
- o Candidate Aadhar/ID card verification
- o Pictures of the classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
- o Pictures and videos of Assessment, training feedback and infrastructure.

- Apart from the Assessor, a Technical assistant is popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.

- To validate their work on the day of the assessment, regular calls and video calls are done.

- On-boarding and training of assessor and proctor is done on a timely basis to ensure that the quality of the assessment should be maintained.

- Training covers the understanding of QP, NSQF level, NOS and assessment structure

Methods of Validation

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.

- Video Calls: Random video calls are made to the technical SPOC/assessor so as to keep a check on assessment quality and ensure assessment is carried out in a fair and transparent manner

- Aadhar verification of candidates

- Evening Check (Post Assessment): Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.

- TP Calling: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation

- Video and Picture Evidence: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.

- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.

- Geo Tagging: On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI have a fully automated result generation process in association with multiple AAs

- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can

be generated.

- Maker Checker concept: One person prepares the results and another audit result which is internally approved by AA at first and then gets vetted at the end of SSC

- All softcopies of documents are received from the on-ground tech team over email. The same is downloaded by our internal backend team and saved in Repository. The repository consists of scheme-wise folders. These scheme-wise folders have two job role-specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in the storeroom.

Result Review & Recheck Mechanism –

- Time-stamped assessment logs

- Answer/Endorsement sheets for each candidate

- Attendance Sheet

- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form

- The results for each of the candidate shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
AGR	Agriculture
NOS	National Occupational Standard (s)
NSQF	National Skills Qualifications Framework
OJT	On-the-job Training
QP	Qualifications Pack
PwD	People with Disability
PPE	Personal Protective Equipment