

Model Curriculum

Jute and Mesta Cultivator

SECTOR: AGRICULTURE & ALLIED
SUB-SECTOR: AGRICULTURE CROP PRODUCTION
OCCUPATION: FIELD CROP CULTIVATION (CASH CROPS)
REF ID: AGR/Q0207, V1.0
NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

AGRICULTURE SKILL COUNCIL OF INDIA

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: 'Jute and Mesta Cultivator' QP No. 'AGR/ Qo2o7 NSQF Level 4'

Date of Issuance: November 10th, 2016

Valid up to: March 31st, 2019

* Valid up to the next review date of the Qualification Pack



Authorised Signatory
(Agriculture Skill Council of India)

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Jute and Mesta Cultivator

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Jute and Mesta Cultivator”, in the “Agriculture & Allied” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Jute and Mesta Cultivator		
Qualification Pack Name & Reference ID. ID	AGR/Q0207, v1.0		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	5 th standard pass, preferably		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Select & Procure the Jute and Mesta crop variety from authentic source: Analyse the geographical conditions, resources available, select various types of strain from different species of jute & mesta crop • Grow and manage Jute and Mesta crop: Preparation of field, sowing, application of fertilizer & nutrients, pest & disease management, irrigation management, harvesting of crop • Maintain the quality of the produce: Time & method of Harvesting, , post harvest practices- decortications, retting, stripping, washing, drying, grading & transportation to market/processing mill • Undertake basic entrepreneurial activities for Jute & Mesta farm: arrangement of finance, pooling of resources, market linkages etc • Practice health & safety at the work place: Well versed with health and safety measures in terms of personal as well as others’ safety. 		

This course encompasses 5 out of 5 National Occupational Standards (NOS) of “Jute and Mesta Cultivator” Qualification Pack issued by “Agriculture Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Introduction Theory Duration (hh:mm) 5:00 Practical Duration (hh:mm) 0:00 Corresponding NOS Code	<ul style="list-style-type: none"> Understand the General Discipline in the class room (Do’s & Don’ts) Understand and study the Scopes and Opportunities of Cash Crops cultivation Understand the Role of a Jute and Mesta cultivator Get acquainted with the agro-climatic conditions required for Jute and Mesta cultivation Understand State farmers’ right under PPV & FRA act 2001 (9 rights) 	Laptop, white board, marker, projector,
2	Prepare land, identify seeds and sow jute and mesta crops Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code AGR/No6o8	<ul style="list-style-type: none"> Study the suitable soil condition required for Jute & Mesta crop Understand the importance of soil testing and application of recommended doses of fertilizer & manure Ensure soil neutrality for better yield of crop Undertake land preparation <ul style="list-style-type: none"> Ploughing Levelling Application of FYM and Fertilizers Select various types of strain from different species of jute and mesta crop according to the requirements and climatic conditions Identify & procure quality seeds from authentic sources Undertake timely sowing using appropriate method (line/ broadcast) at appropriate depth & spacing Identify & select crops that can be used as an intercrop Practice intercropping to ensure higher yields and manage weeds 	White Board, Marker, Laptop, projector, plough/ tractor, harrow, leveler, spade
3	Carry out irrigation and inter-cultural activities of jute and mesta cultivation farms Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm)	<ul style="list-style-type: none"> Understand the water requirement for the cultivation of jute and mesta crop Understand the soil texture, porosity etc Understand the effects of water clogging & poor drainage in the field Irrigate field at regular intervals using flood irrigation method Understand water use efficiency concept Identify different types of weed and its control procedures, tools and treatments Adopt different weed control methods- 	White Board, Marker, Laptop, projector, irrigation equipments, spade, Chemicals, Sprayer, sickle, khurpa, Mechanical Weeder, Nail weeder, hand hoe, harrow weeder, wheel hoe, safety mask & gloves

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	25:00 Corresponding NOS Code AGR/No604	mechanical, chemical, biological <ul style="list-style-type: none"> • Undertake timely weeding/ spraying of weedicides • Identify different pests & diseases infecting jute & mesta crops • Understand the causes and remedy for different types of pests and diseases for jute and mesta cultivation • Understand the importance of Integrated Pest and Disease Management • Practice Integrated Pest and Disease Management- Mechanical/Cultural, Biological & chemical methods • Understand National and International standards on pesticide residues • Understand balanced use of fertilizers and apply different types fertilizers-organic & inorganic for quality fibre and yield 	
4	Undertake harvest and post- harvest activities of jute and mesta crops Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 35:00 Corresponding NOS Code AGR/No610	<ul style="list-style-type: none"> • Understand Do's and Don'ts during crop harvesting • Harvest the crop at appropriate stage & time keeping in consideration crop maturity, climatic conditions etc • Understand and practice the proper method of harvesting • Ensure leaf shredding of harvested crops and sort & bundle the crops/fibres for steeping • Undertake decortications of fibres • Understand the importance of Post harvest Management: quality parameters & grading system of jute • Undertake retting of crop for fibre extraction using appropriate method: mechanical retting (hammering), chemical retting (boiling & applying chemicals), steam/vapor/dew retting, and water or microbial retting • Strip fibres from the retted crops by using various stripping methods : Single stick extraction or beat break jerk • Wash & dry the extracted fibre using appropriate method • Pack the fibres into bales as per different quality parameters and grades • Identify market & buyers for the produce • Make arrangements for transportation of the produce to Jute market/ Jute mills 	White Board, Marker, Laptop, projector, sickle, harvester, decorticating machine, weighing machine

Sr. No.	Module	Key Learning Outcomes	Equipment Required
5	Maintain Health & Safety at the work place Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code AGR/N9903	<ul style="list-style-type: none"> Maintain a clean & efficient workplace Render appropriate emergency procedures On Time Reporting to appropriate person. Practice General safety and first aid 	Laptop, white board, marker, projector, Personal protective equipment Like: Helmet / head gear, safety gloves, Safety boots, First Aid Kit: Bandages, Adhesive bandages, Betadine Solution / ointment, Pain relief spray / ointment, Antiseptic liquid; Phone directory, Search lights, fire extinguisher
6	Undertake basic entrepreneurial activities for small enterprise Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code AGR/N9908	<ul style="list-style-type: none"> Assess demand & supply of mushroom in the market Seek information regarding subsidies/loan available through govt institutions Avail loan from the financial institutions Identify & develop appropriate marketing channels Track prices prevailing in the market and formulate competitive pricing mechanism Maintain book of accounts Calculate B:C ratio Comply with relevant regulations in marketing & sale of the produce 	Laptop, white board, marker, projector, Audio-visual aids, pen, paper
7	Soft Skills/ Digital Literacy/ Financial Literacy Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code	<ul style="list-style-type: none"> Basic Communication Skills Basic Computer Skills Various types of documents and their uses- Birth certificate, 10th Certificate, Ration Card, Voter Id Card, Aadhar Card, PAN card, Driving License, Bank Pass Book Various types of loan/credit available (relevant to the trainees' requirement) and the process to avail the same 	Computer, Audio-visual aids, Projector
	Total Duration: (hh:mm) Theory Duration	Unique Equipment Required: White Board, Marker, Laptop, projector, chemicals, plough, land leveler, spade, sprayer, safety mask, safety gloves & boots, irrigation equipments, hand hoe, khurpa, weeder, sickle, harvester, fibre	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	(hh:mm) 80:00 Practical Duration (hh:mm) 100:00	decorticating machine, weighing machine	

Grand Total Course Duration: **180 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Agriculture Skill Council of India](#))

Trainer Prerequisites for Job role: "Jute and Mesta Cultivator" mapped to Qualification Pack: "AGR/Q0207, v1.0"

Sr. No.	Area	Details
1	Description	Trainer is responsible for providing the education and skills development training on cultivation of Jute and Mesta as per the package of practices recommended for a particular agronomic climate zone, type of soil, rainfall pattern and climatic condition to achieve the yield as per the genetic potential of given variety, post-harvest activities- retting, stripping, washing, cleaning, grading and marketing of jute fibres
2	Personal Attributes	Trainer should be Subject Matter Specialist. He/ She should have good communication and observation skill, leadership skill, practical oriented skill
3	Minimum Educational Qualifications	Diploma, Bachelor Degree in Agriculture Science (Preferably)
4a	Domain Certification	Certified for Job Role: <u>"Jute and Mesta Cultivator"</u> mapped to QP: <u>"AGR/Q0207, v1.0"</u> . Minimum accepted score is 80%.
4b	Platform Certification	Certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/Q1402". Minimum accepted score is 70%
5	Experience	<ul style="list-style-type: none"> • M.Sc. (Agri) with relevant experience of 1 Year, • B.Sc. (Agri) with relevant experience of 3 + Years, • Diploma in Agriculture with relevant experience of 5+ Years.

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Jute and Mesta Cultivator
Qualification Pack	AGR/Qo207, v1.0
Sector Skill Council	Agriculture

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 70% in aggregate
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

Assessable Outcomes	Assessment Criteria	Total Marks	Out of	Theory	Practical Skills
AGR/No207 Prepare land, identify seeds and sow jute and mesta crops	PC1. select appropriate land and soil for jute and mesta cultivation	100	10	2	8
	PC2. ensure optimum environmental conditions for growing jute and mesta crops		10	2	8
	PC3. treat acidic or basic soil to maintain soil neutrality for better yield of the crop		8	2	6
	PC4. prepare fine tilth, well aerated and macerated seed bed by using specified techniques and tools/machineries		8	2	6
	PC5. apply basal dose of manure to improve the physical properties of the soil		8	2	6
	PC6. prepare clean and clod free seed beds for better yield of the crop		8	2	6
	PC7. select various types of strain from different species of jute and mesta crop according to the requirements and climatic conditions		8	2	6
	PC8. identify and collect quality seeds for sowing from authorized organizations, e.g., National Seeds Corporation, Jute Corporation of India, etc.		8	2	6
	PC9. select the type of sowing for the cultivation of jute and mesta crop		8	2	6
	PC10. identify the time of sowing as per the variety of the crop		8	4	4
	PC11. carry out sowing of seeds manually by hands or by machines as per the requirements		8	4	4
	PC12. maintain required sowing depth and plant spacing for germination as per the variety of the crop		8	4	4
	Total		100	30	70
AGR/No208 Carry out irrigation and inter-cultural activities of jute and mesta cultivation farms	PC1. irrigate cultivation field at a regular interval of time using flood irrigation	100	20	5	15
	PC2. ensure proper drainage to remove excess water from the cultivation farm		20	5	15
	PC3. undertake weed control activity of the farm using hand-weeder tools or by spraying specific herbicides as per situation		20	5	15
	PC4. identify the pests of jute and mesta crops		10	4	6
	PC5. treat jute and mesta crops with pesticides when infestation crosses the economic threshold level		10	4	6

	PC7. ensure adaptation of cultural practices for disease management of the crops		10	4	6
	PC8. apply different fertilizers for nutrient management according to the fertility status of the soil		10	3	7
		Total	100	30	70
AGR/No209 Undertake harvest and post-harvest activities of jute and mesta crops	PC1. identify proper harvesting time for jute and mesta crops for better yield and quality fibre	100	8	3	5
	PC2. select mature jute and mesta crops for harvesting as per the age of the plant		8	3	5
	PC3. cut the selected crops by base cutting or uprooting for harvesting using specified tools, e.g., sickle, etc.		8	2	6
	PC4. ensure leaf shedding of the harvested crops by specified defoliation method		8	2	6
	PC5. sort and bundle crop/fibres as per the thickness and size, for steeping		6	2	4
	PC6. undertake decortication of fibres using decorticators or ribboners		8	2	6
	PC7. ret jute and mesta crops for fibre extraction by removing organic polymers using different methods		8	2	6
	PC8. ensure the availability of proper retting conditions		8	2	6
	PC9. select and collect microorganisms from authorised organisations for high retting yield		8	2	6
	PC10. strip fibres from the retted crops by using various stripping methods		6	2	4
	PC11. wash the extracted fibres for a certain time in water to remove debris		6	2	4
	PC12. dry the washed fibres under the sun on bamboo railing for proper squeezing of water		6	2	4
	PC13. identify the quality of jute and mesta fibres as per different quality parameters and grades		6	2	4
	PC14. pack the fibres into bales and supply to jute market or directly to jute mills for processing		6	2	4
		Total	100	30	70

AGR/N9903 Maintain health & safety at the workplace	PC1. undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor	100	8	4	4
	PC2. work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy		8	4	4
	PC3. read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc		8	4	4
	PC4. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice		8	4	4
	PC5. use equipment and materials safely and correctly and return the same to designated storage when not in use		8	4	4
	PC6. dispose of waste safely and correctly in a designated area		6	3	3
	PC7. recognize risks to bystanders and take action to reduce risk associated with jobs in the workplace		6	3	3
	PC8. perform your work in a manner which minimizes environmental damage all procedures and work instructions for controlling risk are followed closely		6	3	3
	PC9. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger		6	3	3
	PC10. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency		6	3	3
	PC11. follow emergency procedures to company standard / workplace requirements		6	3	3
	PC12. use emergency equipment in accordance with manufacturers' specifications and workplace requirements		6	3	3
	PC13. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques		6	3	3

	PC14. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate		6	3	3
	PC15. report details of first aid administered in accordance with workplace procedures		6	3	3
		Total	100	50	50
AGR/N9908 Undertake basic entrepreneurial activities for small enterprise	PC1. seek information regarding demand and supply of produce in the market	100	10	5	5
	PC2. identify target customers and assess their needs such as amount required, purpose, quality, expectations, etc.		10	5	5
	PC3. perform basic accounting such calculating expenditure incurred, costing and pricing of produce		10	5	5
	PC4. ensure that the cost of production, transportation and marketing are included in costing and pricing		10	5	5
	PC5. collect information related to various subsidies/funds offered by the Government, authorized state units and other financial institutions involved with the promotion of the produce		10	5	5
	PC6. comply with relevant regulations in marketing of the produce		10	5	5
	PC7. track information related to wholesale and retail price of the produce		10	5	5
	PC8. record daily sell and purchase of items in designated log books, register, etc.		10	5	5
	PC9. record quantity, quality, date of manufacture and batch number of every produce accurately		10	5	5
	PC10. identify appropriate marketing channels related to the produce considering requirements and constraints		10	5	5
		Total	100	50	50
TOTAL			500	190	310
Percentage Weightage:				38%	62%
Minimum Pass% to qualify (aggregate):				60%	