Model Curriculum

Agri-residue Aggregator

SECTOR: GREEN JOBS
SUB-SECTOR: WASTE MANAGEMENT
OCCUPATION: SUPPLY CHAIN MANAGEMENT
REF ID: SGJ/Q6201, V1.0
NSQF LEVEL: 4

Skill India

SCGJ SKILL COUNCIL FOR GREEN JOBS

N·S·D·C National Skill Development Corporation
Transforming the skill landscape

Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

SKILL COUNCIL FOR GREEN JOBS

for

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: '**Agri-residue Aggregator**'
QP No. '**SGJ/ Q6201 NSQF Level 4**'

Date of Issuance: July 5th 2018
Valid up to*: May 26th 2020

**Valid up to the next review date of the Qualification Pack or the 'Valid up to' date mentioned above (whichever is earlier)*

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Authorised Signatory
(Skill Council for Green Jobs)

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Agri-residue Aggregator

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Agri-residue Aggregator", in the "Green Jobs" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	**Agri-residue Aggregator**		
Qualification Pack Name & Reference ID	SGJ/Q6201, V1.0		
Version No.	1.0	**Version Update Date**	05.07.2018
Pre-requisites to Training	5th Pass		
Training Outcomes	**After completing this programme, participants will be able to:** • Assess market demand for agri-residues • Identify supplier, make negotiations and place order • Set-up nodal points for collection and procurement of agri-residue stock • Densify, pack and store the agri residue bales • Identify best market and sell agri-residue bales • Maintain basic health and workplace safety		

This course encompasses 5 out of 5 NOS (National Occupational Standards) of "Agri-residue Aggregator" Qualification Pack issued by "Skill Council for Green Jobs".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	**Introduction to Agri-residue supply chain** **Theory Duration** (hh:mm) 05:00 **Practical Duration** (hh:mm) 00:00 **Corresponding NOS Code** Bridge Module	• Identify the problems of burning of agri-residue and need for developing biomass supply chain for various end utilizations • Explain various steps of biomass supply chain for collection aggregation, transportation and storage • Demonstrate the role of Agri-residue Aggregator in biomass supply chain and its progressive pathway	Pictorial charts, White Board, Marker, Projector, illustrative pictures
2	**Assess demand for agri-residues and coordinate with farmers** **Theory Duration** (hh:mm) 02:00 **Practical Duration** (hh:mm) 10:00 **Corresponding NOS Code** SGJ/N6201	• Identify methods of determining existing agri-residue market demands & trading system • Demonstrate methods to build and maintain relationship with farmers and identify the needs for agri-residue • Identify key stakeholders and method of negotiation with suppliers (farmers) for appropriate price and timely payment and demonstrate inventory management • Outline the standard and quality of agri-residue as per the demand of the buyer	Computer, Internet Facility, White Board, Marker, Projector
3	**Setting up nodal points for procurement of agri-residues** **Theory Duration** (hh:mm) 03:00 **Practical Duration** (hh:mm) 16:00 **Corresponding NOS Code** SGJ/N6202	• Demonstrate the method of identifying suitable area for setting up of collection points • Illustrate the setting up of collection points to collect the stock from suppliers • Identify method of coordinating with different collection points • Identify and describe farming equipment, tools, logistic like tractors and trolleys required for collection of agri-residues	Computer, Internet Facility, White Board, Marker, Projector
4	**Densification and storing agri-residue bales**	• Explain the concept of grading and sorting of agri-residues for moisture content and absence of thermal residues during densification • Outline the checklist for functioning of baler before densification	Demo model for collection and storage, Moisture Analyser, Temperature Sensor,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration (hh:mm) 03:00 **Practical Duration** (hh:mm) 10:00 **Corresponding NOS Code** SGJ/N6203	• Explain the working of equipments to be operated • Identify methods of densified bales collection and demonstrate the storage mechanism for densified bales • Demonstrate packaging management & correct placement for transportation	Weighing Machine, Gloves, tasla/shallow pan, Sickle
5	**Selling and marketing of agri-residue bales** **Theory Duration** (hh:mm) 03:00 **Practical Duration** (hh:mm) 07:00 **Corresponding NOS Code** SGJ/N6204	• Demonstrate the method of identifying appropriate buyers • Identify market price and demonstrate best ways of attracting a remunerative price for agri-residues bales • Demonstrate methods to build and maintain relationship with clients involved in agri-residue purchase & use • Describe appropriate means of transportation based on location of departure, cost, quality, time constraints, safety, routing model etc.	Routing model for transport
6	**Maintain health and workplace safety** **Theory Duration** (hh:mm) 02:00 **Practical Duration** (hh:mm) 05:00 **Corresponding NOS Code** SGJ/N6205	• Maintain proper hygiene and protection from dust and other infections • Demonstrate transportation safety like use of indicators, avoid bulging of material, etc. • Administer first aid and use of different ways and means to handle emergency situations like fire, natural disasters, riots, etc. • Select methods to dispose off farm waste in accordance with environmental safety • Demonstrate use of Personal Protective Equipment (PPE) and check its availability at work place	Safety Tool Kits (including gloves, mask, boots etc.), First Aid Kit
7	**Communication & Soft Skills** **Theory Duration** (hh:mm) 04:00 **Practical Duration** (hh:mm) 02:00 **Corresponding NOS Code** Bridge Module	• Demonstrate verbal communication includes response on complaints, asking for clarification, etc. • Demonstrate non-verbal communication includes facial expressions, the tone and pitch of the voice, gestures displayed through body language • Instilling social etiquette • Demonstrate organization culture	Posters, Marker, White Board, speakers

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Total Duration: 72:00 **Theory Duration:** 22:00 **Practical Duration** 50:00	**Unique Equipment Required:** Pictorial charts, White Board, Marker, Projector, illustrative pictures, Computer, Internet Facility, Demo model for collection and storage, Moisture Analyzer, Temperature Sensor, Weighing Machine, Gloves, Tasla/Shallow Pan, Sickle, Safety Tool Kits (including Gloves, Mask, Boots etc.), First Aid Kit	

Grand Total Course Duration: 72 Hours, 0 Minute

*(This syllabus/ curriculum has been approved by **Skill Council for Green Jobs)***

Trainer Prerequisites for Job role: "Agri-residue Aggregator" mapped to Qualification Pack: "SGJ/Q6201, V1.0"

Sr. No.	Area	Details
1	**Description**	Agri-residue Aggregator collects agri-residues from farmers through nodal collection points, assesses quality and quantity of agri-residues and accordingly decides price. He/she appropriately sorts, densifies and stores the bales. He/she perform sales of the bales based on end requirements
2	**Personal Attributes**	Agri-residue Aggregator requires to concentrate on the job at hand and complete it meticulously in a safe manner. He / She must possess energy and strength for physical work. He / She must also demonstrate strong work ethics and an ability to communicate courteously with farmers, workers and customers
3	**Minimum Educational Qualifications**	10th Pass
4a	**Domain Certification**	Certified for Job Role: "Agri-residue Aggregator" mapped to QP: "SGJ/Q6201, Version 1.0". Minimum accepted score as per SCGJ guidelines is 80%.
4b	**Platform Certification**	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q0102" or equivalent. Minimum accepted score as per SSC guidelines is 80%.
5	**Experience**	Minimum 2 years of relevant experience

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Agri-residue Aggregator
Qualification Pack	SGJ/Q6201, V1.0
Sector Skill Council	Green Jobs

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	Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS
4	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
5	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6	To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment
7	In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Compulsory NOS Total Marks: 200		Marks Allocation			
Assessment outcomes	**Assessment Criteria for outcomes**	**Total Marks**	**Out Of**	**Theory**	**Skills Practical**
SGJ/N6201: Assess demand for agri-residues and coordinate with farmers	PC1. assess the existing agri-residue market and trading system	**50**	5	2	3
	PC2.identify the type, quality and quantity of agri-residue stock requirement by coordinating with buyer		5	2	3
	PC3. outline the needs and conduct demand planning to coordinate with the suppliers (farmers)		7	3	4
	PC4.check with the farmers to know the harvesting time and to determine stock availability		4	2	2
	PC5. ensure that the suppliers will meet the quality standards set by the buyer		5	2	3
	PC6. communicate on regular basis with the supplier as well as the buyer		5	2	3
	PC7. undertake solving of any problems related to lack of stock in a period		3	1	2
	PC9. ensure a match between the demand and supply		5	2	3
	PC10. undertake continuity of supply		7	2	5
	PC11. provide accurate information on logistics and quality aspects of the stock		4	2	2
		TOTAL	**50**	**20**	**30**
SGJ/N6202: Set-up nodal points and procure agri-residues	PC1.assess and identify the area where collection points may be set-up	**40**	5	2	3
	PC2.undertake proper setup of collection points in different villages to collect the stock from various suppliers (farmers)		7	2	5
	PC3. coordinate with different collection points (if any)		3	1	2
	PC4.undertake acquisition of goods at best possible cost to w.r.t quality, quantity, time and location		5	2	3
	PC5. negotiate right prices with the farmers		5	2	3

	PC6. ensure payments to suppliers (farmers) after assessing quantity and quality of agri-residues		3	1	2
	PC7.ensure all the equipment's, tools, logistic required for collection of agri-residues at the nodal points		5	2	3
	PC8. undertake proper collection and procurement of agri-residues		4	2	2
	PC9. identify efficient management of inventories that are procured		3	1	2
		TOTAL	**40**	**15**	**25**
SGJ/N6203: Densify and store agri-residue bales	PC1.undertake grading and sorting of agri-residues to avoid presence of thermal residues during densification	**40**	6	2	4
	PC2.check the baler before densification of agri-residue		5	2	3
	PC3. feed the hay/agri-residue into the baler properly		5	2	3
	PC4. maintain the pressure of the piston press of baler		4	2	2
	PC5. operate the machine appropriately		6	2	4
	PC6. ensure proper collection of densified bales from the baler and appropriate storage of densified bales		3	1	2
	PC7. undertake proper and good packaging management & correct placement for transportation		4	1	3
	PC8. undertake proper storage of agri-residue bales		3	1	2
	PC9.maintain appropriate temperature, humidity and controlled atmosphere during storage		4	1	3
		TOTAL	**40**	**14**	**26**
SGJ/N6204: Sales and marketing of agri-residue bales	PC1.choose appropriate buyer in a given situation of market parameters	**30**	3	1	2
	PC2. identify best ways of attracting market price for agri-residues		4	2	2
	PC3. ensure appropriate quality as per the customer requirements		3	1	2

	PC4.establish cordial relations with clients involved in agri-residue purchase and use		5	2	3
	PC5. extract critical market information that is otherwise not in the public domain		4	2	2
	PC6. decide on appropriate transportation mode based on location of departure to arrival, cost, quality, time constraints, safety, etc.		4	1	3
	PC7. discuss and decide on the cost involved and the routing model		4	2	2
	PC8. assess the entire agri-residue transport mechanism to ensure efficient and on-time delivery		3	1	2
		TOTAL	**30**	**12**	**18**
SGJ/N6205: Maintain basic health and workplace safety	PC1. keep workplace clean, organized and safe for work	**40**	5	2	3
	PC2. follow and comply with workplace and job specific safety procedures		5	2	3
	PC3. ensure no accidents and damages take place at the workplace		4	1	3
	PC4.ensure proper hygiene and protection from dust and other infections		4	1	3
	PC5. communicate workplace hazards and associated emergencies to workers		4	2	2
	PC6. organize and attend fire drills and workplace safety workshops		4	1	3
	PC7. administer basic first aid and be aware of evacuation and emergency procedures		5	2	3
	PC8.ensure that PPE's requirement are identified and made available at workplace at all time		4	1	3
	PC9. demonstrate safe and accepted practices for personal protection		5	2	3
		TOTAL	**40**	**14**	**26**