



QUALIFICATION FILE

Packhouse Worker

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☒ Apprenticeship

☒ Upskilling ☐ Dual/Flexi Qualification ☒ For ToT ☒ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 3

Submitted By:

Agriculture Skill Council of India

Unit No. 101, First Floor, Greenwoods Plaza, Block 'B', Greenwoods City, Sector 45, Gurugram -122009, Haryana.

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Section 1: Basic Details

1.	Qualification Name	Packhouse Worker																
2.	Sector/s	Agriculture																
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing qualification: QG-03-AG-00277-2023-V1.1-ASCI & Version 1.1	Qualification Name of existing/previous version: Packhouse Worker															
4.	a. OEM Name b. Qualification Name (Wherever applicable)	NA																
5.	National Qualification Register (NQR) Code &Version (Will be issued after NSQC approval)	QG-03-AG-03550-2025-V2-ASCI & Version 2.0	6. NCrf/NSQF Level: 3															
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																
8.	Brief Description of the Qualification	A Packhouse Worker performs a number of activities at a packhouse such as unloading, washing, sorting, ripening, grading and storing different types of horticultural produce. The person also de-greens citrus produce, packs, weighs and loads different types of produce for shipping.																
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10th or equivalent</td> <td></td> </tr> <tr> <td>2</td> <td>8th Class Pass</td> <td>3 years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>3</td> <td>Previous NSQF Level 2.5</td> <td>1.5 years of relevant experience in Agriculture and allied sectors</td> </tr> <tr> <td>4</td> <td>Previous NSQF Level 2.0</td> <td>3 years of relevant experience in Agriculture and allied sectors</td> </tr> </tbody> </table> b. Age: NA		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	10th or equivalent		2	8th Class Pass	3 years of relevant experience in Agriculture and allied sectors	3	Previous NSQF Level 2.5	1.5 years of relevant experience in Agriculture and allied sectors	4	Previous NSQF Level 2.0	3 years of relevant experience in Agriculture and allied sectors
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4	Previous NSQF Level 2.0	3 years of relevant experience in Agriculture and allied sectors																
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrf))	9	11. Common Cost Norm Category (I/II/III) (wherever applicable): I															

12.	Any Licensing requirements for Undertaking Training on This Qualification <i>(wherever applicable)</i>	NA																						
13.	Training Duration by Modes of Training Delivery <i>(Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</i>	☒ Offline ☐ Online ☐ Blended <table border="1"> <thead> <tr> <th>Training Delivery Modes</th> <th>Theory (Hours)</th> <th>Practical (Hours)</th> <th>OJT Mandatory (Hours)</th> <th>OJT Recommended (Hours)</th> <th>Total (Hours)</th> </tr> </thead> <tbody> <tr> <td>Classroom (offline)</td> <td>120</td> <td>150</td> <td></td> <td></td> <td>270</td> </tr> <tr> <td>Online</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <i>(Refer Blended Learning Annexure for details)</i>					Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)	Classroom (offline)	120	150			270	Online					
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Online																								
14.	Aligned to NCO/ISCO Code/s <i>(if no code is available mention the same)</i>	NCO-2015/4321.0603																						
15.	Progression path after attaining the qualification <i>(Please show Professional and Academic progression)</i>	Packhouse worker (L3), Ripening Chamber Technician (L4)																						
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi																						
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:																						
18.	Is the Job Role Amenable to Persons with Disability	☒ Yes ☐ No If "Yes", specify applicable type of Disability: SHI																						
19.	How Participation of Women will be Encouraged	Batches specific to women will be formed																						
20.	Are Greening/ Environment Sustainability Aspects Covered <i>(Specify the NOS/Module which covers it)</i>	☒ Yes ☐ No DGT/VSQ/N0101 (v1.0)																						
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☒ Yes ☐ No Colleges ☒ Yes ☐ No																						
22.	Name and Contact Details of Submitting / Awarding Body SPOC <i>(In case of CS or MS, provide details of both Lead AB & Supporting ABs)</i>	Name: Ms Purnambica.K Email: standards@asci-india.com Website: www.asci-india.com Contact No.: 0124-4670029																						
23.	Final Approval Date by NSQC: 18-02-2025	24. Validity Duration: 3 years post NSQC Approval			25. Next Review Date: 18-02-2028																			

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/Non-Core	NCrF/NS QF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1	Unload and wash the horticultural produce	AGR/N7510 (v2.0)	Core	3	1	15	15			30	30	40		30	100	15
2	Sort, grade, size and store the produce	AGR/N7512 (v2.0)	Core	3	2	20	40			60	30	40		30	100	20
3	De-green and ripen the horticultural produce	AGR/N7513 (v2.0)	Core	3	1	10	20			30	30	40		30	100	15
4	Pack, weigh and ship the produce	AGR/N7514 (v3.0)	Core	3	2	20	40			60	30	40		30	100	20
5	Undertake maintenance of the packhouse, HVAC, tools and equipment	AGR/N7516 (V3.0)	Core	3	1	15	15			30	30	40		30	100	20
6	Maintain health and safety at the workplace	AGR/N9903 (v4.0)	Non-Core	4	1	10	20			30	40	25		35	100	5
7	Employability Skills (30 Hours) v1.0	DGT/VSQ/N 0101 (V1.0)	Non-Core	3	1	30				30	20	30			50	5
Duration (in Hours) / Total Marks					9	120	150			270	210	255	0	185	650	100

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 50 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Minimum Pass Percentage – NOS/Module-wise: ____% (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	12th class with 4 years of relevant industry experience in Post-harvest Supply Chain Management* * Ex-Service-Man including Ex-Paramilitary personnel: Minimum Qualification is 10+2 with an Honorable Discharge/ Pension.SSC would consider a relaxation/waiver of sector-specific experience on case-to-case basis. OR Diploma (Agriculture) with 3 years of relevant industry experience in Post-harvest Supply Chain Management OR Graduate with 3 years of relevant industry experience in Post-harvest Supply Chain Management** ** For the school Program minimum qualification of the Trainer should be Graduate. Their Teaching experience will be considered industry experience OR BBA with 2 years of relevant industry experience in Post-harvest Supply Chain Management OR Graduate (Agriculture/ Horticulture/ Forestry) with 2 years of relevant industry experience in Post-harvest Supply Chain Management OR Postgraduate/ Diploma/MBA (Supply Chain Management/ Agri Business Management) with 0.5 years of relevant industry experience in Post-harvest Supply Chain Management
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	5 years of training experience in Post-harvest Supply Chain Management after Graduation with 3 years of relevant industry experience in Post-harvest Supply Chain Management OR 5 years of training experience in Post-harvest Supply Chain Management after BBA with 2 years of relevant industry experience in Post-harvest Supply Chain Management OR 5 years of training experience in Post-harvest Supply Chain Management after Graduation (Agriculture/ Horticulture/ Forestry) with 2 years of relevant industry experience in Post-harvest Supply Chain Management
3.	Tools and Equipment Required for Training	☒ Yes ☐ No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	NA

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Diploma (Food processing and related streams) with 5 years of relevant industry experience in Mega food parks, Food processing industries, post-harvest operations or other related experience OR B.sc /B.Tech (Agriculture/Horticulture/Post Harvest/Agri- Business/Food processing and related streams) with 4 years of relevant industry experience in Mega food parks, Food processing industries, post-harvest operations or other related experience OR Post-Graduation (M.sc/M.Tech in food processing/Horticulture and related streams) with 2 years of relevant industry experience in Mega food parks, Food processing industries, post-harvest operations or other related experience OR Post- Graduation/ Post Graduate Diploma/MBA (Agri-Business/ SCM/Food processing) with 2 years of relevant industry experience in Mega food parks, Food processing industries, post-harvest operations or other related experience OR PhD (Post-Harvest/ Agri Business/ Horticulture/Food processing and related streams) with 1 year of relevant industry experience in Mega food parks, Food processing industries, post-harvest operations or other related experience
2.	Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Diploma/Graduate (It is mandatory for a proctor to have technical knowledge/IT knowledge Once a proctor has been on-boarded by any AA, they are oriented about skill ecosystem along with do's and don'ts .)
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) <i>(as per NCVET guidelines)</i>	Post-Graduation (M.sc/M.Tech in food processing/Horticulture and related streams) with 10 years of relevant industry experience in Mega food parks, Food processing industries, post-harvest operations or other related experience OR Post- Graduation/ Post Graduate Diploma/MBA (Agri-Business/ SCM/Food processing) with 10 years of relevant industry experience in Mega food parks, Food processing industries, post-harvest operations or other related experience
4.	Assessment Mode <i>(Specify the assessment mode)</i>	Offline
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☒ Yes ☐ No <i>(details to be provided in Annexure-if it is different for Assessment)</i>

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): No
3.	Government /Industry initiatives/ requirement (Yes/No): Government Initiative
4.	Number of Industry validation provided: 15
5.	Estimated nos. of persons to be trained and employed: 15000
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: Yes received from MoA & FW

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors (Mandatory)	Annexure-1
2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Annexure-2
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Annexure-5
4.	Annexure: Assessment Strategy (Mandatory)	Annexure-6
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	NA
6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	NA
7.	Annexure: Acronym and Glossary (Optional)	
8.	Supporting Document: Model Curriculum (Mandatory – Public view)	Annexure-7
9.	Supporting Document: Career Progression (Mandatory - Public view)	Packhouse worker (L3), Ripening Chamber Technician (L4)
10.	Supporting Document: Occupational Map (Mandatory)	Annexure-8
11.	Supporting Document: Assessment SOP (Mandatory)	Annexure-9
12.	Any other document you wish to submit:	

Annexure 1: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	• Use the appropriate unloading equipment • Unload the horticultural produce • Ripen the produce	A Packhouse Worker performs a number of activities at a packhouse such as unloading, washing, sorting, ripening, grading and storing different types of horticultural produce. The person also de-greens citrus produce, packs, weighs and loads different types of produce for shipping.	3
Professional and Technical Skills/ Expertise/ Professional Knowledge	• Maintain the packhouse • Maintain the HVAC, tools and equipment • Perform waste management • Administer appropriate emergency procedures	The job holder should have the knowledge to apply the necessary treatment in the packhouse at regular intervals to prevent the outbreak of pests and diseases, clean and disinfect the pallets, racks and crates using the approved cleaning material, check the Heating, Ventilation and Air Conditioning (HVAC) equipment along with other tools and equipment, carry out minor repair and maintenance of the HVAC, tools and equipment, follow procedures for dealing with accidents, fires and emergencies, report details of first aid administered in accordance with workplace procedures, segregate waste into appropriate categories, deposit the recyclable and reusable materials.	3
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	• Load the produce in the transport vehicle • Pack and weigh the produce • Maintain effective communication and co-ordination at work	The job holder should ensure that examine the produce to be packed to ensure it is in a good condition, arrange the appropriate packing material such as boxes, bags or containers according to the type of produce, ensuring the packing material complies with the applicable regulations, weigh the produce using the approved weighing equipment, arrange the packed produce in batches for shipping according, store the produce	3

		under the recommended temperature and humidity at the packhouse, select the appropriate equipment to carry and load the produce in the transport vehicle, report any work-related issues to the supervisor, interpret verbal and written instructions.	
Broad Learning Outcomes/Core Skill	• Sort, grade and size the produce • Store the produce in the packhouse • De-green the citrus produce	The job holder should sort out the produce that is unsuitable to be marketed or stored based on various parameters, carry out sizing of the produce manually or using machine sizers, maintain the record of sorting, grading and sizing, grade the produce on the basis of parameters, identify storage space according to the quantity and quality, maintain the appropriate temperature and Relative Humidity (RH), discard the damaged or diseased, use pallets, racks and crates to arrange the produce in the packhouse, apply the necessary treatment in the storage to prevent pest/ insect/ rodent infestation, use the relevant Personal Protective Equipment (PPE) during the de-greening operation, select mature citrus produce for de-greening, use the ethylene gas in the recommended quantity.	3
Responsibility	• Performing various activities of horticulture produce • De-greening citrus produces • Packing & Weighing loads for shipping	A Packhouse Worker performs a number of activities at a packhouse such as unloading, washing, sorting, ripening, grading and storing different types of horticultural produce. The person also de-greens citrus produce, packs, weighs and loads different types of produce for shipping.	3

Annexure 2: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Ripening Hormone/ Chemicals	ml	100
2	Weighing Machine	nos	1
3	Packing Material	nos	15
4	Disinfectants	litre	1
5	Wheelbarrow	Nos	1
6	bedding fork	Nos	1
7	Conveyors/ Stools/ Packing Tables	Nos	1
8	Face Masks	Nos	30
9	Helmet	Nos	5
10	Rubber gloves	Nos	30
11	Gumboots	Nos	5
12	Video Recording Equipment	Nos	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Markers

Annexure 3: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	Asirbadha Agro Food Servoces Pvt Ltd	Saurabh Singh	Director	Shital nagar, Bondamunda, Rourkela, Odisha	7858801901	asirbadhagro@gmail.com	
2	KSARB Agro Food Pvt Ltd	Kunwar Jee	Director	Doranda, Ranchi, JH	7004533003	kasrbagro@yahoo.com	

3	RIC veer Food Agro Pvt Ltd	Ram Krishna Samir	Director	H B Road, Ranchi, JH	7004153501	ricveeragro@gmail.com	
4	ZEPTO, Hyderabad	Veerababu Vasamsetti	CC Lead	Hyderabad		vasamsetti.veerababu@zeptonow.com	
5	CAAFE	Sumit Srivastava	General Manager	New Delhi	9889990102	info@caafe.in	
6	Centre for Microfinance	Amit Kumar	Head	Jaipur		amit.kumar@cmfraj.org	
7	Post-Graduation Department of Agriculture	Dr. Randeep Kaur and Dr. Lavleen Kaur	Associate Professor and Assistant Professor	Amritsar	9915305271	lavleenkaur@khalsacollege.edu.in	
8	Agri Joy Private Limited	Priyanshu Jain	Director	Dehradun	79064282293	priyanshu@agrijoy.in	
9	Cropicon Exim Private Limited	Jonna Gunadeep	Founder	Kurnool	6381498558	info@cropicon.co.in	
10	Eco Fast Agri Solution	Shivender Pratap Rathore	Founder & CEO	Bihar	9887720651	ecofastagrisolutions@gmail.com	
11	Indian Institute of Plantation Management	Dr. KC Prakash	Assistant Professor	Bengaluru	7619367720	kcp.iipmb@gmail.com	
12	Jagtap Horticulture Pvt Ltd	Shrinkhala Mahobla	HR Manager	Pune	9011032314	hr@jagtaphorticulture.com	
13	Pathik Agrihorti Solutions pvt. Ltd	Dr Nirmal Kant Sharma	Director	Karnal	7018436769	pagrihortisolutions@gmail.com	
14	Sam Higginbottom University of Agriculture Technology & Sciences	Dr. Neelam Khore	Professor & Head	Prayagraj	9839588504	neelam.khare@shuats.edu.in	
15	Synergy Tecnofin Private Limited	Abhinav Sharma	HR	Delhi	9870568976	abhinav@synergytech.in	

Annexure 4: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2025-26	5000					

2026-27	10000					
2027-28	10000					

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
3.0	2024-25	8983	0	0	0	0	0	0	0	0	0	0	0
3.0	2023-24	2449	0	0	0	0	0	0	0	0	0	0	0
3.0	2022-23	656	0	0	0	0	0	0	0	0	0	0	0

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

1. NAPS

Content availability for previous versions of qualifications:

☒ Participant Handbook ☒ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available: Hindi and English

Annexure 5: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
AGR/N7510: Unload and wash the horticultural produce	<i>Use the appropriate unloading equipment</i>	12	14	-	8
	PC1. select the appropriate manual or power- operated unloading equipment according to the produce to be unloaded	-	-	-	-
	PC2. check the unloading equipment to ensure it is in working condition	-	-	-	-
	PC3. use the unloading equipment safely as per the manufacturer's instructions	-	-	-	-
	<i>Unload the horticultural produce</i>	6	10	-	6
	PC4. unload the horticultural produce from the trucks ensuring no damage to it	-	-	-	-
	PC5. check that the delivered produce matches the purchase order and is in good condition	-	-	-	-
	PC6. report any defects to the supervisor	-	-	-	-
	PC7. assist in maintaining the record of the produce received	-	-	-	-
	<i>Wash the produce</i>	8	6	-	8
	PC8. arrange the approved cleaning material for washing the produce	-	-	-	-
	PC9. group the produce in batches according to the variety and quality	-	-	-	-
	PC10. wash the produce as per the Standard Operating Procedure (SOP)	-	-	-	-
	<i>Optimise resource utilisation</i>	4	10	-	8
	PC11. optimise the usage of water/ electricity/ materials in various tasks/ activities/ processes	-	-	-	-
	PC12. connect the electrical tools and equipment safely and turn off when not in use	-	-	-	-

	PC13. plug water leakages to prevent the wastage of water	-	-	-	-
	NOS Total	30	40	-	30
AGR/N7512: Sort, grade, size and store the produce	<i>Sort, grade and size the produce</i>	14	18	-	14
	PC1. sort out the produce that is unsuitable to be marketed or stored based on various parameters such as damage, insects, immature, over-mature, etc.	-	-	-	-
	PC2. carry out sizing of the produce manually or using machine sizers on the relevant parameters such as weight and diameter	-	-	-	-
	PC3. grade the produce on the basis of parameters such as colour, shape, firmness, etc.	-	-	-	-
	PC4. maintain the record of sorting, grading and sizing of the produce	-	-	-	-
	<i>Store the produce in the packhouse</i>	16	22	-	16
	PC5. identify storage space according to the quantity and quality of produce to be stored	-	-	-	-
	PC6. apply the necessary treatment in the storage to prevent pest/ insect/ rodent infestation	-	-	-	-
	PC7. store the produce in the storage safely	-	-	-	-
	PC8. use pallets, racks and crates to arrange the produce in the packhouse	-	-	-	-
	PC9. maintain the appropriate temperature and Relative Humidity (RH) in the storage according to the produce and duration of storage	-	-	-	-
	PC10. check the produce regularly in the storage to ensure it doesn't suffer fungal infections and bacterial pathogens	-	-	-	-
	PC11. discard the damaged or diseased produce safely	-	-	-	-
	NOS Total	30	40	-	30
AGR/N7513: De-green and ripen the horticultural produce	<i>De-green the citrus produce</i>	18	24	-	12
	PC1. select mature citrus produce for de- greening	-	-	-	-
	PC2. use the ethylene gas in the recommended quantity for de-greening	-	-	-	-

	PC3. maintain the recommended temperature and Relative Humidity (RH) during the de-greening operation	-	-	-	-
	PC4. use the relevant Personal Protective Equipment (PPE) during the de-greening operation	-	-	-	-
	<i>Ripen the produce</i>	12	16	-	18
	PC5. segregate the produce into climacteric and non-climacteric categories	-	-	-	-
	PC6. select produce for ripening on the basis of its maturity	-	-	-	-
	PC7. transfer the selected produce either into the natural ripening chamber or controlled atmospheric ripening chamber according to the ripening requirements of the produce	-	-	-	-
	PC8. use the approved ripening methods and chemicals to ripen the produce	-	-	-	-
	PC9. carry out ripening in batches to ensure different stocks do not get mixed	-	-	-	-
	PC10. maintain the record of de-greening and ripening of produce	-	-	-	-
	NOS Total	30	40	-	30
AGR/N7514: Pack, weigh and ship the produce	<i>Pack and weigh the produce</i>	16	22	-	18
	PC1. examine the produce to be packed to ensure it is in a good condition	-	-	-	-
	PC2. arrange the appropriate packing material such as boxes, bags or containers according to the type of produce and ensure the packing material complies with the applicable regulations	-	-	-	-
	PC3. pack the produce in batches according to the relevant quality parameters while complying with the packing requirements for the produce	-	-	-	-
	PC 4. Carry out shrink wrapping, vaccum wrapping, MAP to extend shelf life of the produce				
	PC5. weigh the produce using the approved weighing equipment to ensure correct weight in the packs	-	-	-	-
	PC6. apply labels on the packs with the relevant information	-	-	-	-

	PC7. arrange the packed produce in batches for shipping according to the relevant quality parameters and destination market	-	-	-	-
	PC8. store the produce under the recommended temperature and humidity at the packhouse, ensuring hygienic conditions	-	-	-	-
	PC9. pre-cool the packed produce as per the requirement before shipping	-	-	-	-
	<i>Load the produce in the transport vehicle</i>	14	18	-	12
	PC10. select the appropriate equipment such as fork-lifts, rail cars, high stackers to carry and load the produce in the transport vehicle	-	-	-	-
	PC11. ensure the transport vehicle is made ready through pre-cooling according to the produce, climate and expected in-transit time	-	-	-	-
	PC12. carry and load the produce in the transport vehicle using the selected loading equipment as per the manufacturer's instructions, ensuring no damage to the produce and packing material	-	-	-	-
	PC13. arrange the produce in the transport vehicle appropriately to protect it from damage during transit	-	-	-	-
	NOS Total	30	40	-	30
AGR/N7516: Undertake maintenance of the packhouse, HVAC, tools and equipment	<i>Maintain the packhouse</i>	10	15	-	10
	PC1. sweep and mop the packhouse floor to maintain cleanliness	-	-	-	-
	PC2. clean and disinfect the pallets, racks and crates using the approved cleaning material	-	-	-	-
	PC3. apply the necessary treatment in the packhouse at regular intervals to prevent the outbreak of pests and diseases	-	-	-	-
	PC4. drain out water accumulated in the packhouse	-	-	-	-
	<i>Maintain the HVAC, tools and equipment</i>	10	15	-	10
	PC5. check the Heating, Ventilation and Air Conditioning (HVAC) equipment along with other tools and equipment used in the packhouse to identify their repair and maintenance needs	-	-	-	-

	PC6. carry out minor repair and maintenance of the HVAC, tools and equipment	-	-	-	-
	PC7. co-ordinate with the supervisor to address complex repair and maintenance issues	-	-	-	-
	PC8. maintain the record of repair and maintenance activities	-	-	-	-
	<i>Perform waste management</i>	10	10	-	10
	PC9. segregate waste into appropriate categories	-	-	-	-
	PC10. dispose the non-recyclable waste appropriately	-	-	-	-
	PC11. deposit the recyclable and reusable materials at the identified location	-	-	-	-
	NOS Total	30	40	-	30
AGR/N9903: Maintain health and safety at the workplace	<i>Maintain personal hygiene</i>				
	PC1. wash hands, legs and face with soap/alcohol based sanitizer at reasonable intervals				
	PC2. wash the worn clothes with soap and sun dry before use next time				
	PC3. ensure the face is covered with mask or three layers of cloth-piece				
	PC4. follow the workplace sanitization norms including distancing from sick people				
	<i>Maintain clean and safe workplace</i>				
	PC5. carry out basic safety checks before operation of all tools, implements, and machinery and report identified hazards to the supervisor				
	PC6. wear appropriate Personal Protective Equipment (PPE) while performing work in accordance with the workplace policy				
	PC7. follow the instructions mentioned on the labels of chemicals/pesticides/fumigants etc to avoid hazards				
	PC8. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practices				
	PC9. sanitize equipment, tools and machinery before and after use				
	PC10. use equipment and materials safely and correctly and return the same to designated storage after use				
	PC11. dispose waste safely and correctly in the designated area				
	<i>Maintain personal hygiene</i>	10	5	-	10

	PC13. work in a manner which minimizes environmental damage, ensuring all procedures and instructions for controlling risks are followed	-	-	-	-
	PC14. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger	-	-	-	-
	PC15. follow government / workplace advisories incase of outbreak of any disease/disaster	-	-	-	-
	<i>Administer appropriate emergency procedures</i>	15	5	-	10
	PC16. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to the location of emergency, as per the workplace requirements	-	-	-	-
	PC17. use emergency equipment in accordance with manufacturer's specifications and workplace requirements	-	-	-	-
	PC18. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques	-	-	-	-
	PC19. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate	-	-	-	-
	PC20. report details of first aid administered in accordance with workplace procedures	-	-	-	-
	NOS Total	40	25	-	35
DGT/VSQ/N010 1: Employability Skills (30 Hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
	<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
	PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-

<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-
Introduction to Employability Skills	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
Constitutional values – Citizenship	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-

	PC13. use internet and social media platforms securely and safely	-	-	-	-
	<i>Entrepreneurship</i>	3	5	-	-
	PC14. identify and assess opportunities for potential business	-	-	-	-
	PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
	<i>Customer Service</i>	2	2	-	-
	PC16. identify different types of customers	-	-	-	-
	PC17. identify customer needs and address them appropriately	-	-	-	-
	PC18. follow appropriate hygiene and grooming standards	-	-	-	-
	<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
	PC19. create a basic biodata	-	-	-	-
	PC20. search for suitable jobs and apply	-	-	-	-
	PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
	NOS Total	20	30	-	-
	Total	210	255	-	185

Annexure 6: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. 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 empanelled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. Multiple Choice Questions : To assess basic knowledge (Objective/Subjective)

2. Viva : To assess awareness on processes (Oral and/or written questioning)
3. Practical : 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 ground through qualified and ToA certified assessors.

While it is important that an individual has adequate knowledge and skills to perform a specific task, weight age for different aspects for assessment are 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 empanelled assessment partners. Based on the results of assessment; ASCI will certify the learners/candidates

2. Testing Environment

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

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

- Multilingual assessments (ASCI is conducting 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 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 training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- 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 practical 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 question, etc. which will test the trainee on his

theoretical knowledge of the subject.

- The theory, practical and viva assessments will be carried out on same day. In case of more number of candidates, 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 usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling job situation

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

3. 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, behavioral traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by 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 which 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 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 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, do's and don'ts, subjective questions to check understanding of practical tasks.

Assessor has to go through orientation program organized by Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. Assessor shall be given a NOS and PC level overview of each QP as applicable. 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 which will maintain standardization of marking scheme.

4. Type of Evidence and Evidence Gathering Protocol:

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

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidences (photos and videos) to the assessor one day prior to the assessment. List is mentioned below:
 - Signed Attendance sheet
 - Assessor feedback sheet
 - Candidate feedback sheet
 - Assessment checklist for assessor
 - Candidate Aadhar/ID card verification
 - Pictures of classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
 - Pictures and videos of Assessment, training feedback and infrastructure.
- Apart from the Assessor, Technical assistant popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of assessment, regular calls and video calls are done.
- On-boarding and training of assessor and proctor is done on timely basis to ensure that quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

5. 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 check on assessment quality and ensure assessment is carried out in fair and transparent manner
- Aadhar verification of candidates
- Evening Check (Post Assessment): Calls are made to the ground team to ensure event is over by what time and the documentation is done in proper manner or not.
- TP Calling: To keep check on malpractice activity, independent audit team calls to TP on recorded line to take confirmation if there was any malpractice activity observed in assessment on part of AA/SSC team. If calls are not connected, email is send to TP Spoc for taking their confirmation
- Video and Picture Evidence: Backend team collects video and pictures for assessment on real time basis and highlights any issue like, Students sitting idle/trainer allowed for helping out candidates during assessment.
- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and do surprise audit for assessment process carried out by ground team.
- Geo Tagging: On day of assessment, each technical spoc is required to login in our internal app which is Geo tagged. Any deviation with centre address needs to be highlighted to assessment team on real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI has fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks forms the basis of the results and encrypted files generated to avoid data manipulation. All responses captured and stored in System with Time-Stamped at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.
- Maker Checker concept: 1 person prepares results and other audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All soft copy of documents is received from the on-ground tech team over mail. The same are downloaded by our internal backend team and saved in Repository. The repository consists of scheme wise folders. These scheme wise folders have 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 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 conclusion of project or scheme)

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)

NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf