Model Curriculum

QP Name: Coconut Grower cum Primary Processor

QP Code: AGR/Q0503

Version: 3.0

NSQF Level: 4

Model Curriculum Version: 2.0

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	Plantation Crops Cultivation
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/0851
Minimum Educational Qualification and Experience	Min. Educational Qualification: 10th grade pass with 2 Year relevant experience OR 10th Class Pass and pursuing continuous regular schooling OR 8th Class with 4 Year relevant experience OR Certificate-NSQF (Level-4, Field Crop/Vegetable) with 6 Months of experience OR Previous relevant qualification of NSQF Level 3 with minimum education as 5th grade pass with 2 Years of relevant experience Min. Age: 17 Years
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed on	17/11/2022
Next Review Date	17/11/2025
NSQC Approval Date	17/11/2022
QP Version	3.0
Model Curriculum Creation Date	17/11/2022
Model Curriculum Valid Up to Date	17/11/2025

Model Curriculum Version	2.0
Minimum Duration of the Course	390 Hours
Maximum Duration of the Course	390 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:

- Describe the process of preparing for coconut cultivation.
- Demonstrate the process of transplanting the seedlings and maintaining the coconut crop.
- Demonstrate the process of carrying out harvesting, post-harvest processing and marketing activities.
- Demonstrate the process of carrying out primary processing of coconut and prepare value-added products.
- Explain the basic entrepreneurial activities for small enterprise.
- Describe the process of undertaking employability and entrepreneurial practices.
- Describe the process of engaging in collective farming/activity.
- Demonstrate various practices to maintain personal hygiene, cleanliness, and safety at the workplace.

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**	**0:00**	**05:00**
Module 1: Introduction to the role of a Coconut Grower cum Primary Processor	05:00	0:00	0:00	0:00	05:00
AGR/N0515 Prepare for coconut cultivation **NOS Version- 2.0** **NSQF Level- 4**	**15:00**	**40:00**	**0:00**	**0:00**	**55:00**
Module 2: Process of preparing for coconut cultivation	15:00	40:00	0:00	0:00	55:00
AGR/N0516 Transplant the seedlings and maintain the coconut crop **NOS Version- 2.0** **NSQF Level- 4**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 3: Process of transplanting the seedlings	20:00	40:00	0:00	0:00	60:00

and maintaining the coconut crop					
AGR/N0520 Carry out harvesting, post-harvest processing and marketing activities **NOS Version-2.0** **NSQF Level- 4**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 4: Process of carrying out harvesting, post-harvest processing and marketing activities	20:00	40:00	0:00	0:00	60:00
AGR/N0535 Carry out primary processing of coconut and prepare value-added products **NOS Version-1.0** **NSQF Level- 4**	**20:00**	**70:00**	**0:00**	**0:00**	**90:00**
Module 5: Process of carrying out primary processing of coconut and prepare value-added products	20:00	70:00	0:00	0:00	90:00
AGR/N9922 Engage in collective farming/activity **NOS Version-1.0** **NSQF Level- 4**	**20:00**	**10:00**	**0:00**	**0:00**	**30:00**
Module 6: Engagement in collective/ farming activities	20:00	10:00	0:00	0:00	30:00
AGR/N9903 Maintain health and safety at the workplace **NOS Version- 3.0** **NSQF Level-4**	**20:00**	**10:00**	**0:00**	**0:00**	**30:00**
Module 7: Hygiene and cleanliness	03:00	03:00	0:00	0:00	06:00
Module 8: Safety and emergency procedures	17:00	07:00	0:00	0:00	24:00
DGT/VSQ/N0102 Employability Skills **NOS Version-1.0** **NSQF Level-4**	**60:00**	**00:00**	**0:00**	**0:00**	**60:00**

Module 9: Employability Skills	60:00	00:00	0:00	0:00	60:00
Total Duration	**180:00**	**210:00**	**0:00**	**0:00**	**390:00**

Module Details

Module 1: Introduction to the role of a Coconut Grower cum Primary Processor

Bridge Module

Terminal Outcomes:

- Discuss the job role of a Coconut Grower cum Primary Processor.

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 Coconut Grower cum Primary Processor. • Identify various employment opportunities for a Coconut Grower cum Primary Processsor.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of preparing for coconut cultivation

Mapped to AGR/N0515 v2.0

Terminal Outcomes:

- Describe the process of selecting the site for coconut cultivation.
- Describe the process of arranging the necessary resources.
- Demonstrate the process of raising the seedlings in the nursery.

Duration: 15:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain various parameters to assess while selecting a site for coconut cultivation. • State the suitable soil and climate conditions for coconut cultivation. • Explain various varieties of seeds such as tall, dwarf and hybrid. • List various resources required for coconut cultivation. • Explain the use of relevant tools and implements for coconut cultivation. • Explain the importance of protecting the nursery bed from direct sunlight with the help of artificial shading. • State the water requirements of different types of seedlings. • Explain various practices to be followed for optimum nutrition management and protection of seedlings from pests and disease. Explain the criteria for selecting the seedlings based on the germination period. • State the appropriate conditions for storing the resources required for raising seedlings and the harvested seedlings.	• Demonstrate the process of preparing the nursery bed in the recommended dimensions. • Demonstrate the process of treating the planting material with the appropriate pesticide, insecticide or fungicide. • Demonstrate how to sow seeds in the seedbed at the recommended depth and spacing. • Demonstrate the process of carrying out nutrition, disease and pest management of seedlings. • Demonstrate the use of the appropriate tools to harvest the seedlings. • Demonstrate the process of discarding the diseased and damaged seedlings in an environment-friendly manner.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Trowel Measuring Tape, Rope, Coconut Seedlings, Rakes, Sickle, Spade, Rose Cane, Chemical, Seed Nut	

Module 3: Process of transplanting the seedlings and maintaining the coconut crop

Mapped to ARG/N0516 v2.0

Terminal Outcomes:

- Describe the process of preparing the field for transplanting seedlings.
- Demonstrate the process of transplanting the seedlings.
- Demonstrate the process of performing nutrient, weed and integrated pest and disease management.
- Demonstrate the process of performing irrigation management.
- Demonstrate various practices for effective resource optimisation.
- Demonstrate various waste management practices
- Discuss ways to promote diversity and inclusion at the workplace.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of removing all roots, debris and waste material from the field before tilling. • State the recommended soil moisture levels required for tilling. • Explain the importance of applying mulch during field preparation to prevent weed growth. • Explain the importance of checking the soil's macro and micronutrient levels through an authorised lab. • State the appropriate quantity of fertilisers to be applied to the soil and the recommended fertilisation schedule. • Explain the importance of checking the crop regularly to identify the signs of pests and disease infestation. • State the recommended practices to be followed to control pests such as adopting the natural enemies of coconut crop pests. • Explain the importance of applying the recommended pesticides or insecticides as per the prescription. • Explain the importance of maintaining the weed, pest and insect calendar.	• Demonstrate how to remove all roots, debris and waste material from the field. • Demonstrate the process of tilling the field to the required depth. • Demonstrate the process of applying mulch in the field to prevent weed growth. • Demonstrate how to create drains in the field for effective drainage of water. • Show how to prepare pits of the recommended depth and width for the healthy growth of seedlings. • Show how to fill the pits with the mixture of topsoil and compost up to the recommended level. • Demonstrate the process of transplanting the seedlings in the pits and applying soil cover on the roots. • Demonstrate the process of carrying out gene stacking as per the requirement. • Demonstrate the process of applying fertilisers to the soil and water the seedlings with the recommended quantity.

• Explain the benefits of resource optimisation. • Explain the importance of recycling and disposing different types of waste as per the applicable regulations. • Explain the importance of inclusion of all genders and People with Disability (PwD) at the workplace.	• Demonstrate the use of a pH meter. • Demonstrate the process of applying lime or gypsum to the soil in the recommended quantity. • Demonstrate the process of applying the lab-recommended organic or inorganic fertilisers to the soil in the recommended quantity. • Demonstrate the process of applying the recommended weedicides/ herbicides as per the instructions from the relevant agricultural university or agriculture department. • Demonstrate the process of carrying out mechanical weeding according to the size of the coconut farm and the extent of weed infestation. • Demonstrate the process of applying the recommended pesticides/insecticides as per the prescription to remove and control pests and diseases. • Prepare a sample record of pesticides and insecticides used in the field. • Demonstrate the process of applying mulch, coconut husk or coir pith to the soil to conserve soil moisture and prevent irrigation water from evaporating. • Demonstrate various practices to optimise the usage of various resources such as water and electricity. • Demonstrate the process of recycling and disposing different types of waste appropriately. • Demonstrate appropriate verbal and non-verbal communication that is respectful of genders and disability.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Power Tiller, Shovel, Trowel, Measuring Tape, Rope, Coconut Seedlings, Rakes, Sickle, Land Leveller, Digger, Spade	

Module 4: Process of carrying out harvesting, post-harvest processing and marketing activities

Mapped to AGR/N0520 v2.0

Terminal Outcomes:

- Demonstrate the process of harvesting the coconuts.
- Demonstrate the process of carrying out post-harvest activities.
- Describe the process of preparing the storage area and storing the produce.
- Describe the process of marketing the produce.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• State the maturity indicators for varieties of coconuts. • Explain the criteria for sorting and grading the harvested coconuts. • Describe the process of de-husking coconuts, extracting and drying copra under the sun or mechanically. • Explain how to extract coconut oil from copra manually. • Explain the importance of ensuring a hygienic and ventilated storage area for storing the produce. • State the recommended temperature and humidity for storing the produce. • Describe the process of identifying the market demand for produce, connecting with potential buyers and negotiating with them. • State the appropriate transport medium for delivering the produce. • Explain the importance of maintaining the record of sales and payments.	• Demonstrate the use of relevant tools and equipment for harvesting coconuts. • Demonstrate the process of harvesting the coconuts ensuring minimum loss and damage to them. • Prepare a sample record of harvested coconuts. • Demonstrate the process of carrying out sorting and grading of coconuts on appropriate quality parameters such as size and appearance. • Describe the process of de-husking the coconuts, extracting and drying copra mechanically. • Demonstrate the process of extracting coconut oil from copra mechanically. • Show how to clean the storage area before storing the produce. • Demonstrate the process of applying the relevant treatment in the storage area to remove any pests, insects and rodents. • Show how to pack the coconuts and copra in netted polythene or gunny bags. • Demonstrate the use of the relevant e-payment method such as Aadhar Enabled Payment System (AEPS), Unified Payment Interface (UPI), Unstructured Supplementary Service

	Data (USSD) payment, etc. • Show how to calculate the benefit-cost (B:C) ratio. • Prepare a sample record of sales and payments.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Coconut Climbing Device, Ropes, Storage Bags, Sickle, Coconut DE husker	

Module 5: Process of carrying out primary processing of coconut and prepare value-added products

Mapped to AGR/N0535 v1.0

Terminal Outcomes:

- Describe the process of preparing desiccated coconut.
- Describe the process of extracting coconut oil traditionally and mechanically.
- Demonstrate the process of preparing Tender Coconut Water (TCW).
- Demonstrate the process of carrying out the processing of tender coconut.
- Demonstrate the process of extracting snow ball tender nut.
- Demonstrate the process of preparing fruit juice, blended tender coconut water, coconut water beverages, Nata de Coco, coconut vinegar and coconut chips.
- Demonstrate the process of extracting and using coconut milk.

Duration: 20:00	Duration: 70:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain different types of raw coconut products, such as nut, coconut water, kernel, copra, husk, and toddy. • Explain different uses of raw coconut products. • Describe different methods of drying copra, such as sun drying, smoke drying, kiln drying and indirect hot air drying. • State the optimum moisture content required in copra for processing. • List different raw products that can be obtained from coconut. • Explain how to avoid undesirable flavour changes in desiccated coconut due to oxidative rancidity of the oil. • Explain the use of residual coconut for different purposes, e.g. cattle feed. • Explain the use of coconut oil and desiccated coconut for making fats for baking and confectionery. • Explain the characteristics of top quality desiccated coconut, i.e. white, free from foreign matter, uniform in granulation against the applicable	• Demonstrate how to dry copra following appropriate drying methods, such as sun drying, smoke drying, kiln drying and indirect hot air drying. • Show how to remove the nut from the hard shell and pare off the thin brown rind, following the recommended practices to prevent contamination by flecks of brown. • Show how to wash the pared nuts free of milk and skin residues. • Demonstrate how to shred the nuts using the shredding machine to obtain the milled product of the required degree of fineness. • Demonstrate the process of carrying out steam or hot water treatment of the ground meat to destroy salmonella and lipases and reduce bacteria count to the recommended levels. • Show how to dry the pasteurized meat on a wire mesh belt using hot air to reduce the moisture content to the recommended levels. • Demonstrate the process of carrying out sieving to obtain different grades of the desiccated coconut, such as

standard, and expressed oil with a free fatty acid content of less than 0.1 %. • List a variety of coconut products available to the chocolate and confectionery trade. • Explain different elements found in TCW, such as vitamins, minerals, proteins, amino acids, sugars, enzymes and other biological growth factors. • Explain the benefits of TCW as a natural isotonic beverage with therapeutic properties and appropriate electrolyte levels.	extra fine, macaroon (fine), medium and coarse. • Demonstrate how to separate coconut meat from the coconut shell to obtain copra, following the recommended practices. • Demonstrate how to chop the copra into small pieces of recommended size and heat them at the recommended temperature for an appropriate duration. • Show how to squeeze coconut oil out from the cooked copra using the expeller and filter it using the filter press. • Show how to crack the coconut shells and separate the coconut meat. • Show how to chop the fresh coconut meat and slice it into thin flakes of the desired size. • Show how to cook the thin flakes of coconut meat in a cooker, heating them at the recommended temperature for an appropriate duration • Demonstrate the process of using the oil expeller to extract the coconut oil from the heat-treated cooked coconut meat. • Demonstrate how to extract Tender Coconut Water (TCW) following the recommended practices ensuring hygiene. • Demonstrate the process of packing the TCW in pouches and aluminium cans using the appropriate technology to retain its flavour for the appropriate period before consumption. • Demonstrate how to prepare a solution of citric acid and potassium metabisulphite using them in the recommended quantity. • Demonstrate the process of carrying out the processing of tender coconut in citric acid and potassium metabisulphite solution for the

	recommended duration to facilitate their storage for appropriate duration and transportation. • Show how to create a groove on the shell of the coconut using an appropriate tool before scooping out the globular tender. • Show how to extract round soft kernel/snow ball tender nut from the coconut shell using the appropriate tool, ensuring to maintain the kernel and water intact in it. • Demonstrate the process of packing the snow ball tender nut in the appropriate LDPE film packaging and storing it at the recommended temperature. • Demonstrate how to prepare fruit juice blended tender coconut water beverage using the selected fruits, following the recommended practices. • Demonstrate the process of carrying out pasteurisation and filtration activities. • Demonstrate the process of carrying out bottling of coconut water to be used as a carbonated/ non-carbonated beverage. • Show how to prepare the culture solution by mixing coconut water with sugar and acetic acid at a stipulated proportion. • Demonstrate how to inoculate the culture solution with Acetobacter and xylinium, using a culture liquid. • Demonstrate the process of harvesting the white-coloured jelly that forms on the top of the culture medium and cut into pieces of appropriate size. • Show how to clean the jelly using pure water to remove all acids and maintain it in flavoured sugar syrup for the appropriate duration and pack it in glass bottles. • Demonstrate the process of carrying

	out fortification of coconut water with sugar and fermentation by inoculation of yeast and then mother vinegar, oxidation and acidification. • Demonstrate how to prepare vinegar from coconut water by using vinegar generators. • Demonstrate how to prepare intermediate moisture coconut kernel by removing the moisture content of the mature coconut kernel by osmotic dehydration using osmotic mediums, such as sugar syrup. • Demonstrate how to prepare coconut chips by dehydrating the intermediate moisture coconut kernel and adding different flavours using the required flavour essence in the osmotic medium. • Show how to use appropriate packing material, such as laminated aluminium pouches, to pack coconut chips and optimise their shelf life. • Demonstrate how to extract oil-protein-water emulsions, i.e. coconut milk, by squeezing freshly grated coconut kernel. • Show how to use coconut milk directly or by diluting it with water to make various preparations, such as desserts, puddings, cocktails, cakes, cookies, coconut jam, etc. • Demonstrate the process of carrying out can packaging of coconut milk in preserve it in the form of cream, milk and dehydrated whole milk.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Shredding Machine, PH Meter, Containers, Laminated Aluminium Pouches, etc.	

Module 6: Engagement in collective farming/activities

Mapped to NOS AGR/N9922 v1.0

Terminal Outcomes:

- Describe the process of creating PGs/ FIGs/ SHGs and preparing for its operations.
- Demonstrate the process of conducting group meetings and training sessions.
- Demonstrate the process of carrying out collective farming/activities.

Duration: 20:00	Duration: 10:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the process of preparing for the Producer Groups (PGs)/Farmers Interest Groups (FIGs)/ Self-Help Groups (SHGs) operations such as fundraising, induction of Subject Matter Experts (SMEs), investing in Information and Communication Technology (ICT) products, etc. • Explain how to obtain access to the relevant government development programmes and funds. • Describe the process of commodity convergence with the relevant developmental programmes. • Explain the importance of planning optimal production to meet the market and household food security needs. • Explain the importance of setting the group objectives and deciding the group income-generating enterprises/ activities, methods of operation, benefits, etc. • Explain the importance of organising the PG/FIG/ SHG meetings and training sessions to resolve common concerns and get information about the latest developments in the field of work. • Explain the benefits of various capacity building exercises such as skill development and training programmes. • Explain the importance and process of conducting field trials to identify and resolve problems encountered	• Roleplay to illustrate how to conduct the initial group meetings to introduce the members, discuss the group objectives, group income-generating enterprises/ activities, methods of operation, etc. • Roleplay to illustrate how to organise field trials to identify and resolve problems encountered by group members in the field operations.

by farmers in the field operations. • Explain the concept of the group-owned bank to provide quality seeds, fertilisers, pesticides, tools and equipment to the member farmers. • Describe the process of using the group's credit facility. • Explain various core collective farming activities such as procuring inputs in bulk, large-scale farming, etc. • Explain the concept and benefits of forming forward and backward linkages. • State the relevant value addition practices such as processing, packing, upgrading the quality, etc. • Explain the benefits of connecting with similar groups to address common problems on a large scale.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
NA	

Module 7: 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: 03:00	**Duration: 03:00**
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 8: 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: 17:00	**Duration: 07:00**
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, waterlogging, pests, fire, etc. • Demonstrate how to safely use the PPE and implements 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 9: Employability Skills (60 hours)

Mapped to NOS DGT/VSQ/N0102 v1.0

Duration: 60:00

Key Learning Outcomes

Introduction to Employability Skills Duration: 1.5 Hours

After completing this programme, participants will be able to:

1. Discuss the Employability Skills required for jobs in various industries
2. List different learning and employability related GOI and private portals and their usage

Constitutional values - Citizenship Duration: 1.5 Hours

3. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
4. Show how to practice different environmentally sustainable practices.

Becoming a Professional in the 21st Century Duration: 2.5 Hours

5. Discuss importance of relevant 21st century skills.
6. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
7. Describe the benefits of continuous learning.

Basic English Skills Duration: 10 Hours

8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
9. Read and interpret text written in basic English
10. Write a short note/paragraph / letter/e -mail using basic English

Career Development & Goal Setting Duration: 2 Hours

11. Create a career development plan with well-defined short- and long-term goals

Communication Skills Duration: 5 Hours

12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
13. Explain the importance of active listening for effective communication
14. Discuss the significance of working collaboratively with others in a team

Diversity & Inclusion Duration: 2.5 Hours

15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
16. Discuss the significance of escalating sexual harassment issues as per POSH act.

Financial and Legal Literacy Duration:5 Hours

17. Outline the importance of selecting the right financial institution, product, and service
18. Demonstrate how to carry out offline and online financial transactions, safely and securely

19. List the common components of salary and compute income, expenditure, taxes, investments etc.
20. Discuss the legal rights, laws, and aids

Essential Digital Skills Duration: 10 Hours

21. Describe the role of digital technology in today's life
22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
24. Create sample word documents, excel sheets and presentations using basic features
25. utilize virtual collaboration tools to work effectively

Entrepreneurship Duration: 7 Hours

26. Explain the types of entrepreneurship and enterprises
27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
29. Create a sample business plan, for the selected business opportunity

Customer Service Duration: 5 Hours

30. Describe the significance of analyzing different types and needs of customers
31. Explain the significance of identifying customer needs and responding to them in a professional manner.
32. Discuss the significance of maintaining hygiene and dressing appropriately

Getting Ready for apprenticeship & Jobs Duration: 8 Hours

33. Create a professional Curriculum Vitae (CV)
34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
35. Discuss the significance of maintaining hygiene and confidence during an interview
36. Perform a mock interview
37. List the steps for searching and registering for apprenticeship opportunities

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
10th Class		7	Agriculture Crop Production	0		Coconut Grower with 7 Years of 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		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 a case-to-case basis.
Diploma	Agriculture/ Horticulture/	3	Agriculture Crop Production	0		
Graduate	Graduate in any stream except Agriculture / Horticulture / Forestry	2	Agriculture Crop Production			For the school Program minimum qualification of the Trainer should be Graduate (Agriculture / Horticulture / Botany/ Forestry) with minimum 3 years Teaching experience (will be considered industry experience)
Graduate	Agriculture/ Horticulture/ Forestry	0		0		

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Coconut Grower cum Primary Processor**", mapped to QP: "AGR/Q0503, 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***	
B.Sc	Agriculture/ Botany/ Forestry/ Plantation/ Horticulture and related streams	5	Horticulture / plantation production practices and related experience	0		Practical skills and knowledge required in Coconut Growing
M. Sc	Agriculture/ Botany/ Forestry/ Plantation/ Horticulture and related streams	2	Horticulture / plantation production practices and related experience	0		Practical skills and knowledge required in Coconut Growing
PhD	Agriculture/ Botany/ Forestry/ Plantation/ Horticulture and related streams	1	Horticulture / plantation production practices and related experience	0		Practical skills and knowledge required in Coconut Growing

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role " **Coconut Grower cum Primary Processor**", mapped to QP: "AGR/Q0503, 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. 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 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 empanelled 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

- Assessment checklist for assessor
- Candidate Aadhar/ID card verification
- Pictures of the classroom, labs to check the availability of adequate equipment's and tools to conduct the training and assessment
- 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 the assessor and proctor are 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 candidates 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	The 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	The 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	The 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
AEPS	Aadhar Enabled Payment System
AGR	Agriculture
NOS	National Occupational Standard (s)
NSQF	National Skills Qualifications Framework
OJT	On-the-job Training
PwD	People with Disability
PPE	Personal Protective Equipment
QP	Qualifications Pack
UPI	Unified Payment Interface
USSD	Unstructured Supplementary Service Data