

Model Curriculum for Recognition of Prior Learning (RPL)

Gardener cum Nursery Raiser

Sector: Agriculture

Sub Sector: Agriculture Crop Production

Occupation: Landscaping, Gardening & Urban Farming

QP Code: AGR/Q0809

Version: 2.0

NSQF Level: 4

Gardener cum Nursery Raiser

CURRICULUM / SYLLABUS

This program is aimed at training to Recognition of Prior Learning (RPL) candidates for the job of a “Gardener cum Nursery Raiser”, in the “Agriculture” Sector/Industry and aims at building the following key competencies amongst the learners

Program Name	Gardener cum Nursery Raiser
Qualification Pack Name & Reference ID.	AGR/Q0809
Version No.	2.0
Pre-requisites to Training	"Min. Educational Qualification: 12th grade pass OR 10th grade pass with 2 years of relevant experience OR 10th grade pass and pursuing continuous schooling OR Previous relevant qualification of NSQF Level 3.0 with minimum education as 8th grade pass with 3 years of relevant experience OR Previous relevant qualification of NSQF Level 3.5 with 1.5 years of relevant experience Age: 18 Years
Training Outcomes: Orientation and Soft Skill	After completing this programme, participants will be able to: • Identify personal strengths and value systems: safe work habits, achievement motivation, time management, anger management, stress management. • Prepare for employment and self-employment: preparing for an interview, effective resume writing, basic workplace terminology. • Illustrate the basics of entrepreneurship and identify new business opportunities • Develop personality and learn general ethics and discipline • Learn about health and safety hazards and hygiene at work place • Learn effective communication skills • Learn about importance of RPL certification and process of assessment

Training Outcomes: Bridge Course	After completing this programme, participants will be able to: • Describe the process of raising saplings in the nursery for transplanting in the garden. • Describe the process of raising, maintaining, transplanting and harvesting seedlings. • Explain the process of assisting in managing plant health and nursery operations. • Explain the process of preparing to set up the garden. • Describe the process of setting up the garden as per the plan. • Demonstrate various practices to ensure health and safety at work.
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Orientation and Soft Skill Details:

Sr. No.	Module	Key Learning Outcomes	Equipment Required
A.	Orientation, General Discipline, doubts/gaps in Domain Training and Health and Safety		
1.	Orientation, General Discipline, doubts/gaps in Domain Training and Health and Safety Theory Duration (hh:mm) 06:00 Practical Duration (hh:mm) 00:00	- Domain Training (clarifying any doubts/gaps regarding Job Role) - Understanding Qualification Packs, NOS - Understanding about NSQF framework and applied level descriptors - Understand skill development ecosystem, roles of various stakeholders - Recognize the importance of general discipline in the classroom (dos and don'ts) - List expectations from the program - Outline the objectives of the RPL and importance of skill and certification - Identify risks to health and safety at the workplace and measures to be taken to control them	White Board, Marker, Laptop, projector,
B.	Soft Skills and Entrepreneurship Tips specific to the Job Role		
1.	Entrepreneurship Theory Duration (hh:mm) 02:00	- Discuss the concept and significance of entrepreneurship and the characteristics of an entrepreneur - List the traits of an effective team and team dynamics - Resolve problems by identifying important problem-solving traits - Discuss how to identify new business opportunities within your business - Follow the entrepreneurial process and explain the entrepreneurship ecosystem - Identify key schemes of the govt. and banks to promote entrepreneurship - Define the relationship between entrepreneurship and risk appetite and entrepreneurship and resilience - Importance of book keeping and accounts management. - Understand market dynamics and value chain of agri products. - Understanding formation of cooperatives, FPO, FPC and enterprise creation	Laptop, white board, marker and projector, SWOT activity: pen and paper individual exercise, charts, coloured pens, Group Activity: poster making on entrepreneurship ecosystem. Activity: SMART Goal writing

2	Personal Strengths and Value Systems Theory Duration (hh:mm) 01:00 Practical Duration (hh:mm) 00:00	• Self-Improvement, inculcate leadership qualities. • Importance of Discipline in managing small business. • Discuss how to maintain a positive attitude • List your strengths and weaknesses • Describe the importance of honesty in entrepreneurs • Discuss the benefits of time management and applied techniques • Apply tips for anger management and stress management • Effective interpersonal skills, listening and speaking skills.	Workbook exercises on health standards, Laptop, activity on strengths and weaknesses, white board, marker, projector
3	Preparing for Employment and Self-Employment Theory Duration (hh:mm) 01:00 Practical Duration (hh:mm) 00:00	• Follow the steps to prepare for an interview • Create an effective Resume • Conduct mock interviews • Identify the most frequently asked interview questions and how to answer them	Laptop, white board, marker, projector, sample CVs, Mock interviews, role plays, role play briefs, FAQs, quiz on basic workplace technologies.
C.	Familiarization with Assessment Process and Terms		
1	Familiarization with Assessment Process and Terms (hh:mm) 02:00	• Familiarization about assessment process • Understanding the need of assessment • Preparation tips for assessment • Doubt clearance session	
	Total Duration: Theory Duration (hh:mm) 12:00 Practical Duration (hh:mm) 00:00	Laptop, white board, marker and projector, SWOT activity: pen and paper individual exercise, charts, coloured pens, Group Activity: poster making on entrepreneurship ecosystem. Activity: SMART Goal writing	

Bridge Course Details

This course encompasses 07 out of 07 National Occupational Standards (NOS) of “Gardener cum Nursery Raiser” Qualification Pack issued by “Agriculture Skill Council of India”.

Module 1: Introduction to the role of a Gardener cum Nursery Raiser

Bridge Module

Terminal Outcomes:

- Discuss the job role of a Gardener cum Nursery Raiser.

Duration: 01:00	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 Gardener cum Nursery Raiser. • Identify various employment opportunities for a Gardener cum Nursery Raiser.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of raising saplings in the nursery for transplanting in the garden

Mapped to AGR/N0801 v2.0

Terminal Outcomes:

- Explain the process of preparing for nursery operations.
- Explain the process of preparing the nursery bed.
- Describe the process of propagating saplings through seeds.
- Describe the process of propagating plants through cutting, root division, layering and budding.

Duration: 04:00	Duration: 05:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain applicable record-keeping requirements in the job role. • List various resources required for setting up a nursery. • Explain various types of seedbed such as raised/ level/ sunken. • Describe the process of preparing a nursery bed and seedbed. • List the variety of material required for propagating plants in a nursery. • List the relevant tools and equipment and their correct use. • Explain the safe use of fertilizers, pesticides and insecticides. • State the water requirements of different types of saplings.	• Demonstrate the process of constructing the shade net house, store-room, compost area, etc. • Demonstrate the process of erecting framed structures such as poly-tunnels, hardening chamber, mist chamber for plant propagation. • Show how to prepare farmyard manure or compost as per the Standard Operating Procedure (SOP). • Demonstrate the process of conducting a soil test to identify the soil treatment requirements. • Demonstrate the process of applying the necessary treatment on the soil as per the requirement. • Demonstrate the process of applying fertilizers, farmyard manure or compost uniformly on the field in the recommended quantity. • Show how to puddle the field for the recommended duration of time. • Show how to level the field using an appropriate implement. • Demonstrate the process of carrying out pre-sowing treatment of the seeds. • Demonstrate the process of sowing seeds in the seedbed, poly bags and containers at the recommended depth.

	• Demonstrate the process of applying the recommended quantity of water and manure/ fertilizer on the sown seeds as per the SOP. • Demonstrate how to acclimatise the saplings before transplanting. • Show how to extract stems of the recommended specifications from the plant. • Show how to cover the stem / tip / trunk of the plant with soil according to the selected method. • Demonstrate the process of applying the recommended quantity of water and fertilizer to support the growth of roots. • Demonstrate the process of applying the approved pesticides/ insecticides to protect the plants from pests and diseases. • Demonstrate the process of maintaining the record of nursery operations.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Hose pipes, Shears, Loppers, Weeder, Hedge cutters, Sickle, Pit for dry leaves, Water pumps & equipment, Green house /shade house, Watering timers & controllers, Hand gloves, Sprinklers, Spade, Perforated poly bags, Pots, Water cans, Hand cutter, Knapsack sprayers, Different types of seeds, Bulbs, Trowel, Plant seedlings/cuttings, Seedling trays, Rake, Baskets, Hoe, Weedicides, Plant labels, Fertilizers, Khurpi, Mask, Safety boots, First aid kit, Installed Video camera with high resolution and recording facility, Broom, Pesticides, Axe, Jute & pvc bags	

Module 3: Process of raising, maintaining, transplanting and harvesting seedlings

Mapped to ARG/N0820 v2.0

Terminal Outcomes:

- Explain the process of preparing to raise seedlings.
- Describe the process of raising seedlings for transplantation.
- Describe the process of carrying out harvesting and post-harvesting activities.
- Describe the process of transplanting the seedlings.

Duration: 04:00	Duration: 06:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain the applicable record-keeping requirements. • Explain the correct use of the relevant nursery tools, implements and PPE. • List various inputs required in nursery operations such as different types of fertilizers, pesticides, containers, poly bags, etc. • State the depth recommended for planting different varieties of plant seeds in containers/ poly bags/ germination beds. • List various inputs required in nursery operations such as different types of fertilizers, pesticides, containers, poly bags, etc. • State the appropriate level of moisture and temperature to aid germination of seeds. • Explain the recommended quantity and correct way of applying insecticides/ pesticides on seedlings. • Describe different practices to protect seedlings from excessive heat/ cold and strong winds. • Explain the conditions required for the healthy growth of seedlings. • List various inputs required in nursery operations such as different types of fertilizers, pesticides, containers, poly bags, etc. • Describe the correct method of	• Demonstrate how to sort out the seeds of poor quality. • Demonstrate the process of preparing the correct mixture of soil and manure/ fertilizer. • Demonstrate the process of preparing the containers/ poly bags/ germination beds of the appropriate size for planting seeds. • Show how to fill in the containers/ poly bags with the prepared soil. • Demonstrate the process of planting seeds in containers/ poly bags/ germination beds at the depth recommended for the seed variety. • Demonstrate the process of applying the recommended quantity of fertilizers and insecticides on seedlings while protecting them from damage. • Show how to remove dead and unhealthy seedlings as per the Standard Operating Procedure (SOP). • Demonstrate the process of harvesting seedlings at their appropriate stage of growth. • Show how to pack the flowers appropriately in cardboard boxes for being transported. • Demonstrate the process of preparing the appropriate type of nursery bed such as sunken bed, level bed, raised bed for transplantation of

harvesting and transplanting seedlings. Describe post-harvest processing of flowers.	seedlings. - Show how to create holes of the recommended dimensions in the soil. - Show how to plant the seedlings in the holes and fill them with soil. - Demonstrate the process of applying mulch or compost around the seedlings. - Demonstrate the process of maintaining the record of seedlings transplanted in the nursery.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Hose pipes, Shears, Loppers, Weeder, Hedge cutters, Sickle, Pit for dry leaves, Water pumps & equipment, Green house /shade house, Watering timers & controllers, Hand gloves, Sprinklers, Spade, Perforated poly bags, Pots, Water cans, Hand cutter, Knapsack sprayers, Different types of seeds, Bulbs, Trowel, Plant seedlings/cuttings, Seedling trays, Rake, Baskets, Hoe, Weedicides, Plant labels, Fertilizers, Khurpi, Mask, Safety boots, First aid kit, Installed Video camera with high resolution and recording facility, Broom, Pesticides, Axe, Jute & pvc bags	

Module 4: Process of assisting in managing plant health and nursery operations

Mapped to AGR/N0821 v2.0

Terminal Outcomes:

- Elucidate ways to manage the nutrient requirements of plants.
- Elucidate ways to protect plants from pests and diseases.
- Explain the process of assisting in managing nursery operations.

Duration: 08:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain the importance of customer-centric approach and customer-service skills. • Discuss various plant health and pest/disease management practices. • Explain different types of plant growth regulators and their correct use. • Describe basic repair and maintenance process of nursery infrastructure. • Explain the importance of following environmental and ecological best practices to minimise the impact on the environment.	• Demonstrate the process of applying the appropriate plant growth regulators such as abscisic acid, gibberellins, cytokinins, ethylene using the recommended application method. • Demonstrate the process of applying fertilizers and water on the plants with the recommended quantity at appropriate intervals. • Demonstrate the process of carrying out trimming and pruning of the plants as per the instructions received. • Demonstrate the process of applying the relevant treatment to free the plants from the identified pests/diseases. • Prepare sample record of the insecticides/ pesticides used on plants. • Show how to remove the sources of mosquito breeding. • Demonstrate the process of carrying out treatment of waste water as per instructions from the supervisor. • Demonstrate the process of carrying out basic repair and maintenance of the nursery infrastructure, tools and implements. • Prepare sample records such as use of plant growth regulators/ fertilizers/ pesticides, plant growth, sales and payments.

Classroom Aids
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop
Tools, Equipment and Other Requirements
Hose pipes, Shears, Loppers, Weeder, Hedge cutters, Sickle, Pit for dry leaves, Water pumps & equipment, Green house /shade house, Watering timers & controllers, Hand gloves, Sprinklers, Spade, Perforated poly bags, Pots, Water cans, Hand cutter, Knapsack sprayers, Different types of seeds, Bulbs, Trowel, Plant seedlings/cuttings, Seedling trays, Rake, Baskets, Hoe, Weedicides, Plant labels, Fertilizers, Khurpi, Mask, Safety boots, First aid kit, Installed Video camera with high resolution and recording facility, Broom, Pesticides, Axe, Jute & pvc bags

Module 5: Process of preparing to set up the garden

Mapped to AGR/N0802 v2.0

Terminal Outcomes:

- Explain the process of planning to set up the garden.
- Elucidate ways to arrange the necessary resources.

Duration: 03:00	
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Explain various parameters to assess while conducting a site survey before establishing a garden. • List the suitable soil and climate conditions for setting up a garden. • Explain varieties of trees, plants, grass, shrubs, hedges and edges used in gardens. • List variety of material required for setting up a garden such as plants, shrubs, fertilizers, pesticides, tools, equipment, Personal Protective Equipment (PPE), etc. • Explain the importance of conducting a soil test before planting a garden and applying the necessary soil treatment to improve the quality of soil. • Discuss basic practices related to maintaining the record of purchase and payments.	• Roleplay how to conduct a survey of the site proposed for setting up the garden. • Show how to calculate the spacing between plants/ trees/ shrubs and rows as per their variety and available land area. • Show how to prepare the layout of the garden based on the assessment of client requirements. • Demonstrate the process of maintaining the record of purchase.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Hose pipes, Shears, Loppers, Weeder, Hedge cutters, Sickle, Pit for dry leaves, Water pumps & equipment, Green house /shade house, Watering timers & controllers, Hand gloves, Sprinklers, Spade, Perforated poly bags, Pots, Water cans, Hand cutter, Knapsack sprayers, Different types of seeds, Bulbs, Trowel, Plant seedlings/cuttings, Seedling trays, Rake, Baskets, Hoe, Weedicides, Plant labels, Fertilizers, Khurpi, Mask, Safety boots, First aid kit, Installed Video camera with high resolution and recording facility, Broom, Pesticides, Axe, Jute & pvc bags	

Module 6: Process of setting up the garden as per the plan

Mapped to AGR/N0803 v2.0

Terminal Outcomes:

- Explain the process of preparing the field for planting.
- Describe the process of planting the garden.
- Describe the process of setting up garden features and irrigation or fertigation system.
- Describe the process of preparing the flower bed.

Duration: 02:00	Duration: 03:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
• Describe the correct method and depth of tilling a field for gardening. • List various material used for treating garden soil. • Explain the importance of having effective drainage in the garden. • Describe the process of preparing a nursery bed. • Explain different garden features and their installation process. • Explain the importance of following environmental and ecological best practices to minimise the impact on the environment.	• Show how to remove all roots, debris and waste material from the land. • Demonstrate the process of applying the necessary treatment on the soil such as relevant chemicals, peat, lime, manure, compost, etc. • Show how to remove weeds from the land. • Show how to prepare rows and holes for planting seeds/ plants as per the planned layout. • Demonstrate the process of planting trees/ plants/ shrubs/ grass/ hedges and edges in the selected pattern maintaining the required spacing. • Demonstrate the process of applying soil cover on the planted roots of the trees/ plants/ shrubs/ grass/ hedges and edges. • Demonstrate the process of apply an appropriate type of fertilizer/ manure/ mulch on the roots of the hedges and edges. • Demonstrate the process of installing supports for the relevant types of plants to help them grow as intended. • Show how to erect fences around the garden to protect it from animals. • Show how to sort out damaged and unhealthy seeds. • Demonstrate the process of planting the seeds as per the SOP. • Show how to prepare potting mixture

	using the recommended ingredients. • Demonstrate the process of planting the vegetables and fruit plants. • Demonstrate the process of carrying out potting and repotting for the optimum growth of potted plants. • Demonstrate the process of setting up appropriate irrigation system such as drip irrigation, sprinkler irrigation, subsurface irrigation. • Demonstrate the process of installing fertigation system as per the requirement. • Demonstrate the process of installing various garden features such as walkways, statues, fountain as per the layout. • Show how to remove any existing grass/ plants/ debris from the spot. • Show how to till the soil to the recommended depth. • Demonstrate the process of preparing the flower bed as per the Standard Operating Procedure (SOP). • Demonstrate the process of planting flowering plants such as bulbs, orchids, succulents, cacti in combination with bedding plants.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Hose pipes, Shears, Loppers, Weeder, Hedge cutters, Sickle, Pit for dry leaves, Water pumps & equipment, Green house /shade house, Watering timers & controllers, Hand gloves, Sprinklers, Spade, Perforated poly bags, Pots, Water cans, Hand cutter, Knapsack sprayers, Different types of seeds, Bulbs, Trowel, Plant seedlings/cuttings, Seedling trays, Rake, Baskets, Hoe, Weedicides, Plant labels, Fertilizers, Khurpi, Mask, Safety boots, First aid kit, Installed Video camera with high resolution and recording facility, Broom, Pesticides, Axe, Jute & pvc bags	

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: 00:30	Duration: 00:30
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.	• 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.
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	

Total Duration: Theory Duration: (hh:mm) 22:30 Practical Duration: (hh:mm) 25:30 Grand Total Bridge Course Duration: (hh:mm) 48:00	Unique equipment required: Sprinklers, Rubber gloves, Water pumps & equipments, Hedge cutters, Weeder, Shears, Hose pipes, Jute & pvc bags, Video Recording Equipment, Pesticides, Gumboots, Face Masks, Khurpi, Plant labels, Fertilizers, Hoe, Weedicides, Baskets, Seedling trays, Rake, Trowel, Plant seedlings/cuttings, Different types of seeds, Hand cutter, Knapsack sprayers, Pots, Spade,
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Grand Total Course Duration: 12 (Orientation session) + 48 (Bridge Course) = 60 Hours, 0 Minutes