

# Model Curriculum

## Gardener

**SECTOR : AGRICULTURE & ALLIED**

**SUB-SECTOR : AGRICULTURE CROP PRODUCTION**

**OCCUPATION : LANDSCAPE AND GARDENING**

**REF ID : AGR/Q0801, V1.0**

**NSQF LEVEL : 4**



## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**AGRICULTURE SKILL COUNCIL OF INDIA**

for the

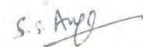
**MODEL CURRICULUM**

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: 'Gardener' QP No. 'AGR/ Q 0801 NSQF Level 4'

Date of Issuance: March 15<sup>th</sup>, 2015

Valid up to: March 31<sup>st</sup>, 2016

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

  
S. S. Arora  
Authorised Signatory  
(Agriculture Skill Council of India)

## TABLE OF CONTENTS

<b>1. Curriculum</b>	<b>01</b>
<b>2. Trainer Prerequisites</b>	<b>05</b>
<b>3. Annexure: Assessment Criteria</b>	<b>06</b>

# Gardener

## CURRICULUM / SYLLABUS

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

<b>Program Name</b>	<b>Gardener</b>		
<b>Qualification Pack Name &amp; Reference ID. ID</b>	AGR/Q0801, v1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	
<b>Pre-requisites to Training</b>	5th Standard Passed		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• <b>Identify and use basic tools, equipment &amp; materials:</b> Effectively identify, select &amp; use the specified tools and equipment relevant to gardening works.</li> <li>• <b>Prepare root stocks:</b> Preparing root stocks for grafting, budding</li> <li>• <b>Layout and design the Garden component:</b> Area Measurement and planning for the layout and design of garden. Proper landscaping.</li> <li>• <b>Maintain the Garden:</b> identify and select the tools for Pruning, training, trimming and develop healthy Garden.</li> <li>• <b>Become well versed with Environment Health &amp; Safety:</b> Well versed with health and safety measures in terms of personal safety and others as well.</li> </ul>		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of “Gardener” Qualification Pack issued by “Agriculture Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<b>Introduction</b>  <b>Theory Duration</b> (hh:mm) 25:00  <b>Practical Duration</b> (hh:mm) 25:00  <b>Corresponding NOS Code</b> Bridge Module	<ul style="list-style-type: none"> <li>Understand and perform General Discipline in the class room (Do’s &amp; Don’ts)</li> <li>Understand the Role of a Gardener</li> <li>Study and understand Types of Gardens</li> <li>Gain knowledge about the Aesthetic value of garden.</li> <li>Study the Value in terms of money for gardening</li> <li>Study the Planting materials for gardening.</li> <li>Learn Basic skills of communication</li> <li>Learn Basic reading capabilities to enable reading of signs, notices and/or cautions at site.</li> </ul>	Laptop, white board, marker, projector
2	<b>Nursery Management and Propagation of Plant Material</b>  <b>Theory Duration</b> (hh:mm) 25:00  <b>Practical Duration</b> (hh:mm) 40:00  <b>Corresponding NOS Code</b> AGR / N0801	<ul style="list-style-type: none"> <li>Identify appropriate garden crops as per soil &amp; climatic conditions.</li> <li>Prepare nursery bed &amp; seedlings</li> <li>Transplant the seedlings</li> <li>Maintain farm book keeping</li> <li>Prepare the root stocks and practice Propagation techniques.</li> <li>Practice cutting, grafting, budding and layering techniques</li> <li>Establish the physical infrastructure like shade house, green house, mist chamber, irrigation system.</li> <li>Understand the soil mixtures and seed beds.</li> <li>Understand the basic botany for garden crops.</li> <li>Gain knowledge about the Water, Media &amp; Nutrition requirement for garden crops.</li> <li>Study the Fertilizer requirement of garden crops.</li> <li>Practice Pest &amp; Disease Management of garden crops.</li> <li>Understand the irrigation methods /requirements of garden crops.</li> <li>Maintain cleanliness in nursery by sweeping trashes and pulling out dead plant parts etc.</li> </ul>	Laptop, white board, marker, projector, Seedling Tray, sacks, polythene, watering cans and equipments, shade net, green house/shade house, plant labels, labellers, spade, khurpi
3	<b>Designing of Garden Components</b>  <b>Theory Duration</b> (hh:mm) 30:00	<ul style="list-style-type: none"> <li>Understand the features of Garden.</li> <li>Gain knowledge about the different types of Garden</li> <li>Plan for the Design and Layout of Gardens.</li> <li>Layout &amp; prepare the lawn</li> <li>Layout of orchard, plant fruit plants in the field</li> </ul>	Laptop, white board, marker, projector, spade, khurpi, shears, loppers, hedge cutters

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<b>Practical Duration</b> (hh:mm) 45:00  <b>Corresponding NOS Code</b> AGR/N0802	<ul style="list-style-type: none"> <li>Understand the different components of garden.</li> <li>Implement the techniques to beautify the gardens.</li> </ul>	
4	<b>Plantation, Maintenance and Care of Garden</b>  <b>Theory Duration</b> (hh:mm) 20:00  <b>Practical Duration</b> (hh:mm) 30:00  <b>Corresponding NOS Code</b> AGR/N0803	<ul style="list-style-type: none"> <li>Understand the seasonal Gardening and Ground maintenance.</li> <li>Understand the different planting and Culture of Floral Display.</li> <li>Understand and perform the irrigation maintenance in the garden.</li> <li>Practice Pest and Disease management.</li> <li>Perform filed operations like Maintain Lawn and Turf, Mowing, Fertilizing, Weeding, Irrigation, Aeration and Renovation.</li> <li>Gain knowledge about the different Plant and Culture of Trees, shrubs etc</li> <li>Identify different fruit plants &amp; ornamental plants</li> <li>Prepare pot mixtures, potting &amp; repotting of plants</li> <li>Prune shrubs, hedge, edge &amp; topiary</li> <li>Collect soil samples for soil analysis</li> <li>Identify vegetable seed, garden tools &amp; implements</li> <li>Prepare Bordeaux mixture</li> <li>Prepare spray solution, handling sprayers &amp; dusters</li> </ul>	Laptop, white board, marker, projector, Hedge cutter, shears, loppers, sprayers, plant labels, pesticides, weedicides, fertilizers, water pumps and equipments, watering timers and controllers
5	<b>Health &amp; Safety at the work place</b>  <b>Theory Duration</b> (hh:mm) 10:00  <b>Practical Duration</b> (hh:mm) 10:00  <b>Corresponding NOS Code</b> AGR/N9903	<ul style="list-style-type: none"> <li>Understand the basic safety measures.</li> <li>Understand the minimization of environmental damage during farm operations.</li> <li>Proper use of equipment.</li> <li>Practice General safety and first aid</li> </ul>	Hand Gloves, Mask, Pair of shoes, first aid kit

	<p><b>Total Duration:</b></p> <p><b>Theory Duration</b> <b>110:00</b></p> <p><b>Practical Duration</b> <b>150:00</b></p>	<p><b>Unique Equipment Required:</b></p> <p>Laptop, white board, marker, projector, Seedling Tray, sacks, polythene, watering cans and equipments, shade net, green house/shade house, plant labels, labellers, spade, khurpi, shears, loppers, hedge cutters, sprayers, plant labels, pesticides, weedicides, fertilizers, water pumps and equipments, watering timers and controllers, Hand Gloves, Mask, Pair of shoes, first aid kit</p>
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Grand Total Course Duration: **260 Hours, 0 Minutes**

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

## Trainer Prerequisites for Job role: "Gardener" mapped to Qualification Pack: "AGR/Q0801, v1.0"

Sr. No.	Area	Details
1	<b>Description</b>	Gardener is responsible for taking care of beautification of lawns and gardens for private Houses, Parks, and Hotels in order to attract customers.
2	<b>Personal Attributes</b>	This job requires the individual to work independently and be comfortable in making decisions pertaining to his/her area of work. The individual should be result oriented. The individual should also be able to demonstrate skills of identifying crops, maintaining garden, use of various tools and decision making for instant problem solving.
3	<b>Minimum Educational Qualifications</b>	Diploma in Agriculture/Horticulture (B.Sc Horticulture Preferable)
4a	<b>Domain Certification</b>	Certified for Job Role: "Gardener" mapped to QP: "AGR/Q0801, v1.0". Minimum accepted score is 80%.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/Q1402". Minimum accepted % as per respective SSC guidelines is 70%.
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>• Post graduate(Horticulture) with a experience Of 1 Year</li> <li>• Graduate(Horticulture/Agriculture) 3 + years of Experience</li> <li>• Diploma with 5+ Years of experience in relevant field</li> </ul>



## Annexure: Assessment Criteria

<b>Assessment Criteria</b>	
<b>Job Role</b>	<b>Gardener</b>
<b>Qualification Pack</b>	<b>AGR/Q0801, v1.0</b>
<b>Sector Skill Council</b>	<b>Agriculture</b>

<b>Sr. No.</b>	<b>Guidelines for Assessment</b>
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 60% in aggregate and 40% in each NOS
6	The marks are allocated PC wise; however, every NOS will carry a weight age in the total marks allocated to the specific QP

Assessable Outcome	Assessment Criteria	Total Mark (300)	Out Of	Marks Allocation	
				Theory	Skills Practical
<b>1. AGR / N 0801- Nursery Management and Propagation of Plant Material</b>	PC1. Establish of physical infrastructure – shade house, mist chamber, irrigation system	<b>60</b>	5	2	3
	PC2. Prepare of soil mixtures		3	1	2
	PC3. Prepare of seed beds		3	2	1
	PC4. Transplant		2	1	1
	PC5. Take up Potting		2	1	1
	PC6. Take up Hardening		3	2	1
	PC7. Propagate of plants through cuttings		5	2	3
	PC8. Practice layering and stooling (Guava)		5	2	3
	PC9. Practice grafting (Mango)		5	2	3
	PC10. Practice budding in rose / citrus		5	2	3
	PC11. Raise of root stocks for grafting and budding		5	2	3
	PC12. Use of Plastics for Nursery Operations		5	5	0
	PC13. Identify and grow indoor plants of their basic requirements		3	1	2
	PC14. Layout Nursery Area		5	0	5
	PC15. Identify and use of proper root stock and scion for propagation		4	1	3
<b>Total</b>		<b>60</b>	<b>26</b>	<b>34</b>	
<b>2. AGR / N 0802 - Designing of Garden Components</b>	PC1. Design various components of Garden like hedge, edge, shrubbery, pergolas, flower bed, lawn, etc.	<b>75</b>	15	8	7
	PC2. Visualize various components according to actual field		5	3	2
	PC3. Use various components available in the garden area		5	3	2
	PC4. Design different types of gardens		15	9	6
	PC5. Utilise the available space effectively for different type of gardens		5	3	2
	PC6. Measure area for layout of garden components		5	3	2
	PC7. Layout for components of garden in the field		10	7	3
	PC8. Plan field design		10	5	5
	PC9. Maintain the plants according to design		5	2	3
<b>Total</b>		<b>75</b>	<b>43</b>	<b>32</b>	
<b>3. AGR / N 0803 - Plantation, Maintenance and Care of Garden</b>	PC1. Maintain Lawn and Turf	<b>150</b>	10	5	5
	PC2. Plant and Culture of Trees		15	7	8
	PC3. Plant and Culture Trees shrubs and plant covers		10	5	5
	PC4. Maintain texture and structure		4	2	2
	PC5. Take care of Water and Water Movement		4	2	2
	PC6. Take up Soil Nutrient Management		5	3	2

Assessable Outcome	Assessment Criteria	Total Mark (300)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC7. Control Erosion		4	2	2
	PC8. Plan and preparation of Bed		5	3	2
	PC9. Plant & culture of annuals, bulbs etc		5	2	3
	PC10. Recommend plant Spacing		5	2	3
	PC11. Deheading of flowers as per the recommended procedures		5	3	2
	PC12. Prune and trim trees, shrubs, and hedges, using shears, pruners, or chain saw etc		5	3	2
	PC13. Use techniques to shape trees and shrubs as per the recommended procedures		4	2	2
	PC14. Install drip and sprinkler system as per the design		10	5	5
	PC15. Clean of filters & drips for optimum flow		4	2	2
	PC16. Understand Water requirements of different plants		4	2	2
	PC17. Use watering appliances like Drip & Sprinklers, Water can, Seedling water can, Bucket, Syringe and Garden hose etc as per the need and procedure		4	2	2
	PC18. Identify Pest and diseases		5	2	3
	PC19. Manage pest and diseases		5	3	2
	PC20. Use chemical & non-chemical methods of pest & disease control		5	2	3
	PC21. Plant woody plants, bulbs and bedding plants, shrubbery, hedges and edges etc as per procedures		4	2	2
	PC22. Identify and growing of indoor plants as per the design layout		4	2	2
	PC23. Practice in making bonsai		10	5	5
	PC24. Prepare potting mixture, potting and repotting.		4	2	2
	PC25. Plant various fruits / crops as per the design and layout		10	5	5
	<b>Total</b>		<b>150</b>	<b>75</b>	<b>75</b>
<b>4. AGR/N9903 Maintain Health and safety at the workplace</b>	PC1. undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor	<b>15</b>	1	0	1
	PC2. work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.		1	1	0
	PC3. read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc		1	1	0
	PC4. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice.		1	0	1

Assessable Outcome	Assessment Criteria	Total Mark (300)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC5. use equipment and materials safely and correctly and return the same to designated storage when not in use		1	0	1
	PC6. dispose of waste safely and correctly in a designated area		1	0	1
	PC7. recognize risks to bystanders and take action to reduce risk associated with jobs in the workplace		1	1	0
	PC8. perform your work in a manner which minimizes environmental damage all procedures and work instructions for controlling risk are followed closely.		1	0	1
	PC9. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger.		1	0	1
	PC10. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.		1	1	0
	PC11. follow emergency procedures to company standard / workplace requirements		1	1	0
	PC12. use emergency equipment in accordance with manufacturers' specifications and workplace requirements		1	0	1
	PC13. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques		1	0	1
	PC14. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate		1	0	1
	PC15. report details of first aid administered in accordance with workplace procedures.		1	1	0
	<b>Total</b>	<b>300</b>	<b>15</b>	<b>6</b>	<b>9</b>
	<b>Percentage Weightage:</b>			<b>50%</b>	<b>50%</b>
	<b>Minimum Pass% to qualify (aggregate):</b>			<b>60%</b>	



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