

Model Curriculum

Floriculturist – Open Cultivation

SECTOR: AGRICULTURE & ALLIED
SUB-SECTOR: AGRICULTURE CROP PRODUCTION
OCCUPATION: FLORICULTURE FARMING
REF ID: AGR/Q0701, 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: **'Floriculturist – Open Cultivation'** OP No. **'AGR/Oo701 NSQF Level 4'**

Date of Issuance: March 15th, 2015

Valid up to: March 31st, 2016

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



Authorised Signatory
(Agriculture Skill Council of India)

Floriculturist – Open Cultivation

CURRICULUM / SYLLABUS

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

Program Name	Floriculturist – Open Cultivation		
Qualification Pack Name & Reference ID. ID	AGR/Qo701, v1.0		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	No entry level barrier; 5th Standard Passed preferable.		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Perform pre-cultivation practices: Preparation of Soil, soil treatment, nursery preparation, land preparation, transplantation etc • Cultivate and Manage Flower Crop: Inputs procurement, Land preparation, sowing, soil testing, application of fertilizer & nutrients, irrigation, INM, IPM, training, pruning etc • Harvest the crop and maintain the quality: Time of Harvesting, method of harvesting, post harvest practice, packing, storage and transportation. • Become well versed with Environment Health & Safety: Well versed with health and safety measures in terms of personal safety and others as well. 		

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

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Introduction Theory Duration (hh:mm) 5:00 Practical Duration (hh:mm) Corresponding NOS Code	<ul style="list-style-type: none"> Understand the General Discipline in the class room (Do’s & Don’ts) Understand the Role of a Floriculturist – Open Cultivation Understand the types of Flowers which will be used for Open Cultivation 	Laptop, white board, marker, projector
2	Preparatory Cultivation of Flower Crops Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code AGR/No701	<ul style="list-style-type: none"> Pre – Cultivation Practices <ul style="list-style-type: none"> Soil Testing Identify the available resources Market feasibility Crop Selection <ul style="list-style-type: none"> Pest and Disease resistance High Yield Variety Drought tolerant Land preparation Nursery preparation and management Transplantation of seedlings 	White Board, Marker, Laptop, projector, Tractor, Leveler, Soil Sampling equipments, soil testing instruments, Spade
3	Crop Cultivation in Flower Crops Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 30:00 Corresponding NOS Code AGR/ No702	<ul style="list-style-type: none"> Estimation of Nutrients requirement for flower crop production Procurement of Inputs Cultivation of Flower Crops <ul style="list-style-type: none"> Type of Flower for Cultivation Crop Spacing Border Crops Time of Planting Seed rate requirement Application of Fertilizers/manures <ul style="list-style-type: none"> Time of application Dosage Method Application Integrated Nutrient Management (INM) practices Training /Pruning (If Necessary) Irrigation Schedule for Flower Crop <ul style="list-style-type: none"> Frequency Time of Irrigation Method of Irrigation Drainage practices Pest and Disease management <ul style="list-style-type: none"> Identification of Pests in the field Precautions 	Marker, Laptop, projector, Fertilizers/Plant protection chemicals, Sprayer machine, Gloves, tractor and other implements, irrigation equipments

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> - Application of Chemicals - Integrated Pest Management (IPM) Practices - Identification of Disease symptoms - Identify the source for diseases - Application of Chemicals 	
4	Harvest & Post Harvest management inn Floriculture (hh:mm) 25:00 Practical Duration (hh:mm) 35:00 Corresponding NOS Code AGR/No703	<ul style="list-style-type: none"> • Method of harvesting • Time of Harvesting • Post Harvest Practices <ul style="list-style-type: none"> - Receiving, Handling of harvested flower crops - Grading of harvested crop - Identify and use the packing materials - Packing of Harvested flower crops - Storage of Packed crop - Transportation 	White Board, Marker, Laptop, projector, Transportation Vehicle, Packing materials – Scissor, Polythene, Storage infrastructure
5	Maintain Health & Safety at the work place Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code AGR/N9903	<ul style="list-style-type: none"> • Perform General safety Rules • Gain Knowledge of various health hazards relevant to workplace and basic first aid training. • Understand the basic safety checks and other common reported hazards before all field operation • Understand, identify and study the use of equipment and materials safely and correctly • Understand and handle the emergency situation in workplace 	White Board, Marker, Laptop, projector, First Aid, Safety clothes, Gloves, etc
	Total Duration: Theory Duration (hh:mm) 80:00 Practical Duration (hh:mm) 100:00	Unique Equipment Required: White Board, Marker, Laptop, projector, Tractor, Leveler, Soil Sampling equipments, soil testing instruments, Spade, Fertilizers/Plant protection chemicals, Sprayer machine, Irrigation Equipments, , First Aid, Safety clothes, Gloves, etc	

Grand Total Course Duration: **180 Hours, 0 Minutes**

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

Trainer Prerequisites for Job role :“Floriculturist – Open Cultivation” mapped to Qualification Pack: “AGR/Q0701, v1.0”

Sr. No.	Area	Details
1	Description	Trainer is responsible for providing the education and skills development training related to various activities of flower cultivation involving preparatory cultivation, cultivation and post harvest management
2	Personal Attributes	Trainer should be Subject Matter Specialist. He/ She should have good communication and observation skill, leadership skill, practical oriented skill
3	Minimum Educational Qualifications	Diploma, Bachelor Degree in Agriculture Science/ Horticulture Science
4a	Domain Certification	Certified for Job Role: “Floriculturist – Open Cultivation” mapped to QP: “AGR/Q0701, v1.0”. Minimum accepted score is 80%.
4b	Platform Certification	Certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/Q1402”. Minimum accepted score is 70%
5	Experience	<ul style="list-style-type: none"> • Post graduate with an experience of 1 Year, • Graduate with experience of 3 + Years, • Diploma with relevant experience of 5+ Years.

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Floriculture – Open Cultivation
Qualification Pack	AGR/Q0701, v1.0
Sector Skill Council	Agriculture

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	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 70% in aggregate
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 Marks (300)	Out Of	Marks Allocation	
				Theory	Skills Practical
1. AGR/ N 0701 Preparatory Cultivation of Flower Crops	PC1. Take soil and water sample	90	10	5	5
	PC2. Perform pH test		2	1	1
	PC3. Perform EC test		2	1	1
	PC4. Amend soil as per need		2	1	1
	PC5. Select the crop as per the soil, water and climate		2	1	1
	PC6. Select the right variety as per the soil, water and climate		2	1	1
	PC7. Mix sand, manure and soil (Preparation of Soil)		5	3	2
	PC8. Prepare raised bed		10	5	5
	PC9. Prepare tray/ poly bag bed		3	1	2
	PC10. Sow seed		2	1	1
	PC11. Prepare cuttings for raising nursery		10	5	5
	PC11. Clean the field		2	1	1
	PC12. Plough or dig the field		2	1	1
	PC13. Level the field		2	1	1
	PC14. Construct drains		2	1	1
	PC15. Layout the field		3	2	1
	PC16. Prepare holes for planting		2	1	1
	PC17. Take soil sample		10	5	5
	PC18. Test soil and amend accordingly		3	1	2
	PC19. Transplant seedlings		5	2	3
	PC20. Uproot the undesired plants		2	1	1
	PC21. Fill the gaps		2	1	1
PC22. Perform mulching	5	3	2		

	Total		90	45	45
2. AGR / N 0702 Crop Cultivation in Flower Crops	PC1. Apply recommended dose of manure and fertilizers as basal	120	5	2	3
	PC2. Ensure healthy growth of leaf by the regular application of fertilizers		2	1	1
	PC3. Apply manure/fertilizer after pruning		2	1	1
	PC4. Apply micro-nutrients by foliar spray		5	2	3
	PC5. Methodology of fertigation		10	5	5
	PC6. Centring (or decentring), promotes the growth of auxiliary buds and lateral branches are formed.		10	5	5
	PC7. Train growing branches for further lateral branch formation, good spread and establishment of budding surface		10	5	5
	PC8. Pruning plant as per pruning cycle		5	3	2
	PC9. Table training for bushes		5	3	2
	PC10. Pruning carried out to keep the plant continuously under vegetative stage		2	1	1
	PC11. Harvest rain water		10	5	5
	PC12. Apply sprinkler irrigation		2	1	1
	PC13. Apply Micro irrigation		2	1	1
	PC14. Apply poly pipe irrigation		2	1	1
	PC15. Maintain drainage		5	3	2
	PC16. Rogue infected plant/ plant parts		5	3	2
	PC17. Perform weeding manually		2	1	1
	PC18. Remove weed using herbicides (Spraying of Herbicides)		5	2	3

	PC19. Spray systemic fungicide		2	1	1
	PC20. Spray contact fungicide		2	1	1
	PC21. Apply botanicals (Organic Pesticides)		2	1	1
	PC22. Apply selective insecticide/acaricides		5	3	2
	PC23. Apply bio-pesticides		5	2	3
	PC24. Transplant insect pest repellent plants		5	2	3
	PC25. Perform field sanitation		10	5	5
	Total		120	60	60
3. AGR / N 0703 Harvest & Post Harvest Management in Floriculture	PC1. Decide on the harvesting time	75	15	7	8
	PC2. Take up appropriate Harvesting practices		20	10	10
	PC3. Take up post harvesting value addition (Grading, packing)		25	14	11
	PC4. Appropriate storage practices		15	8	7
	Total		75	39	36
4. AGR/N9903 Maintain Health and safety at the workplace	PC1. undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor	15	1	0	2
	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
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
			15	6	9
	TOTAL	300	300	150	150
	<u>Percentage Weightage:</u>			<u>50%</u>	<u>50%</u>
	<u>Minimum Pass% to qualify (aggregate):</u>			<u>60%</u>	