

Model Curriculum

Mango Grower

SECTOR: AGRICULTURE & ALLIED
SUB-SECTOR: AGRICULTURE CROP PRODUCTION
OCCUPATION: FRUIT CROP CULTIVATION
REF ID: AGR/Q0302, 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: **'Mango Grower'** QP No. **'AGR/ Qo3o2 NSQF Level 4'**

Date of Issuance: March 15th, 2015

Valid up to: March 31st, 2019

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



Authorised Signatory
(Agriculture Skill Council of India)

TABLE OF CONTENTS

<u>1. Curriculum</u>	04
<u>2. Trainer Prerequisites</u>	09
<u>3. Annexure: Assessment Criteria</u>	10

Mango Grower

CURRICULUM / SYLLABUS

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

Program Name	Mango Grower		
Qualification Pack Name & Reference ID. ID	AGR/Q0302, v1.0		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	No entry barrier, 5 th standard pass preferable		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Select the Crop variety: Analyse the Geographical conditions, resources available, select the crop variety, high yielding variety, pest and disease tolerant variety, hybrid varieties • Grow and manage crop: Inputs requirement, Preparation of field, sowing, soil testing, application of fertilizer & nutrients, quality management, crop management • Maintain the quality of the produce: Time of Harvesting, Moisture level of the produce, post harvest practice, packing 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. 		

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration (hh:mm) 4:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code AGR/N0312	<ul style="list-style-type: none"> Understand the different canopy formations for plants Practice the pruning of Mango Plantations Maintain the canopy in appropriate formations 	
5	Nutrient Management in Fruit Crops Theory Duration (hh:mm) 9:00 Practical Duration (hh:mm) 11:00 Corresponding NOS Code AGR/N0307	<ul style="list-style-type: none"> Understand the Nutrient requirement for the cultivation of Mango fruit Understand and perform the soil sampling for test Understand the Micro and Macro Nutrients in soil Understand the required fertilizer dosage for the nutrient enrichment in soil Understand the method of nitrogen fixation in soil Understand the various soil microorganisms beneficial for the nutrient enrichment in soil Use the bio fertilizer/organic manure in the cultivation of fruit crop Estimate the quantity of fertilizer to be applied at various stages in relation to NPK and other secondary nutrients. It Maintain the record of application of fertilizers and intervals 	White Marker, projector, fertilizers, fertilizers, Board, Laptop, Sprayer, bio
6	Integrated Pest and Disease Management for Fruit Crops Theory Duration (hh:mm) 9:00 Practical Duration (hh:mm) 11:00 Corresponding NOS Code AGR/N0308	<ul style="list-style-type: none"> Understand the major pests and disease in Mango Understand the Characters of different insect pests Understand the symptoms of and precaution measures for different diseases Follow the Package of Practice for the Mango Cultivation Understand the suitable chemical for the insect pest and diseases attack Identify, select and place the different insect traps in the field Understand the importance of Integrated Pest and Disease Management Perform the Integrated Pest and Disease Management 	White Marker, projector, chemicals, sprayer, gloves Board, Laptop, traps, mask,
7	Irrigation Management for Fruit Crops	<ul style="list-style-type: none"> Understand the Water requirement for the cultivation of fruit crop 	White Marker, Board, Laptop,

Trainer Prerequisites for Job role :“Mango Grower” mapped to Qualification Pack: “AGR/Q0302, v1.0”

Sr. No.	Area	Details
1	Description	Trainer is responsible for providing the education and skills development training on Mango plantation from preparation of planting material to harvesting (includes procuring seed material, preparing nursery, cultivation and intercultural operations, harvesting, marketing, etc)
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 in Agriculture
4a	Domain Certification	Certified for Job Role: “Mango Grower” mapped to QP: “AGR/Q0302, v1.0”. Minimum accepted score is 80%.
4b	Platform Certification	Certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q0102”. Minimum accepted score is 80%
5	Experience	<ul style="list-style-type: none"> • M Sc (Agriculture / Horticulture / Forestry/ Botany) • B. Sc. (Agriculture / Horticulture / Forestry/ Botany) with 1 year of relevant work experience • B.Sc. with 3 years of relevant work experience and 5 years of total work experience • Diploma in Agriculture with 5 years of relevant work experience

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Mango Grower
Qualification Pack	AGR/Q0302, 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	Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS
4	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (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 criterion.
5	To pass the Qualification Pack , every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
6	In case of <i>unsuccessful completion</i> , the trainee may seek reassessment on the Qualification Pack.

Assessable Outcome	Assessment Criteria	Total Marks	Out Of	Marks Allocation	
				Theory	Skills Practical
1. AGR/N0310 Prepare planting material for Mango cultivation	PC1. identify the agro-climatic zone in which cultivation is taken up	60	2	1	1
	PC2. list the varieties that are suitable to the zone		5	2	3
	PC3. select economically attractive variety		5	2	3
	PC4. prepare the appropriate planting material through practices suitable to variety like grafting, budding, inarching, etc.		5	2	3
	PC5. use vegetative propagation to get true to type planting material		5	3	2
	PC6. treat planting material appropriately		3	2	1
	PC7. store planting material hygienically		3	2	1
	PC8. ascertain the right storage time for planting material based on the practice adopted		2	1	1
	PC9. identify various vendors / suppliers (including government nurseries / Universities) of the planting material , if the farmer is not preparing the planting material		2	1	1
	PC10. ascertain the quality of seedling and planting material from each source in terms of 'free from pests and diseases', 'survival rate' etc.		2	1	1
	PC11. ascertain the prevailing market price for the planting material		2	1	1
	PC12. procure the planting material		2	1	1
	PC13. identify an appropriate storage space (free of infestation and having congenial climatic conditions for the planting material		2	1	1

	PC7. place grafts/planting material carefully in pits dug		4	2	2
	PC8. ascertain the number of grafts and the distances for planting		6	4	2
	PC9. water grafts and appropriately stake the same		6	0	6
	PC10. protect the graft from effects like heat with construction of shed, etc.		4	2	2
	PC11. apply mulch to conserve soil moisture		6	4	2
	PC12. select and sow intercrops which are appropriate to the chosen mango variety planted		6	4	2
	Total		60	30	30
3. AGR/N0312 Manage post plantation nursing in Mango cultivation	PC1. engage in formative pruning in early stages of the plant in appropriate locations and time for the plant	90	15	6	9
	PC2. practice heading back pruning for the mango plant at the appropriate stage of growth of plant		15	9	6
	PC3. prune at the correct location in plant		10	5	5
	PC4. prune following the accepted method		10	5	5
	PC5. dress the locations after pruning with appropriate chemicals		10	5	5
	PC6. maintain the land clean after the pruning		5	3	2
	PC7. maintain the canopy in appropriate formations – open center, ladder, conventional, dwarfing – depending on the land layout, variety and yield		10	5	5
	PC8. peg the heavier branches with poles to ensure the right canopy formation		10	5	5
	PC9. ensure that post canopy management there is sufficient sunlight at the base of the mango tree		5	2	3

	PC12. use emergency equipment in accordance with manufacturers' specifications and workplace requirements		2	1	1
	PC13. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques		2	1	1
	PC14. recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate		2	1	1
	PC15. report details of first aid administered in accordance with workplace procedures.		2	1	1
			30	15	15
	TOTAL	600	600	300	300
	Percentage Weightage:			50%	50%
	Minimum Pass% to qualify (aggregate):			70%	