

Model Curriculum

Rubber Nursery Worker - General

SECTOR: Rubber

SUB-SECTOR: Rubber Plantation (Natural Rubber Production)

OCCUPATION: Rubber Nursery Management

REF ID: RSC/ Q 6005, V1.0

NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by
the

Rubber Skill Development Council

for the

MODEL

CURRICULUM

Complying to National Occupational Standards

of

Job Role/ Qualification Pack: '**Rubber Nursery Worker**' QP No. '**RSC/ Q 6005**
NSQF Level 4'

Date of Issuance: **December 15, 2015**

Valid Upto: **December 15, 2016**

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



Authorised Signatory

Rubber Skill Development Council

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Rubber Nursery Worker – General

CURRICULUM/SYLLABUS

This program is aimed at training candidates for the job of an “Rubber Nursery Worker - General”, in the “Rubber” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Animator		
Qualification Pack Name & Reference ID. ID	RSC/ Q 6005		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	Class 10 th		
Training Outcomes	After completing this programme, participants will be able to: <ul style="list-style-type: none"> • Rubber Nursery Practices (sorting seeds, germination of seeds, planting, maintenance, development of bud-clone wood nursery, poly bag plants, sale of material) • Natural Resources Management • Feedback to Higher Authorities 		

This course encompasses three out of three National Occupational Standards (NOS) of “RSC/ Q 6005” Qualification Pack issued by “Rubber Skill Development Council”.

S.No	Module	Key Learning Outcomes	Equipment
1	Introduction and Orientation Theory 2 hours Practical 0 hours Corresponding NOS Bridge Module	<ul style="list-style-type: none"> Importance of Rubber Sector Role and responsibility of Rubber Nursery Worker 	Laptop, white board, marker, projector
2	Rubber Nursery Practices Theory 38 hours Practical 60 hours Corresponding NOS RSC/ N6010	<ul style="list-style-type: none"> Sort rubber seeds based on quality. Undertake viability test of the seed. Store seeds temporarily. Understand the seeds germination. Prepare the land and germination beds. Understand the plantation process in nursery. Water and care of the rubber seedlings. Understand the nursery maintenance and disease management. Know major weeds in rubber lands and their control. Treat the different types of diseases. Use sprayers. Understand the budwood nursery. Develop the multi-clone budwood nursery. Produce the advance d planting materials. Prepare the planting material for sale. Do packaging. Understand the transport. 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer. Sample of Rubber Seeds, Trowel, Coir mat/ gunny bags, watering can, buckets, felling knife, spade, rope, list of Chemicals to prevent diseases, Sample budded stumps, handsaw, budding tape, budding knife, Root trainer cup, poly bags, spade, rope, coir pith
3	Natural Resource Management Theory 30 hours Practical 45 hours Corresponding NOS RSC/ N5005	<ul style="list-style-type: none"> Identify the possibilities and causes of soil erosion. Undertake precautions to minimize soil erosion. Follow correct method and direction of terrace preparation. Know and implement correct method of providing proper drainage. Maintain Hedges efficiently. Protect water source from pollution. Understand and undertake rain water harvesting. Judiciously use water during irrigation. Know and implement mulching for soil and moisture. Conservation. Avoid excess dosage of fertilisers and chemicals to minimise damage to soil micro 	Laptop, white board, marker, projector, Spade, felling knife, crowbar, rain shades, Cleaning equipment like dust picker, hand mop, dry mop, brush etc., Samples of fertilizers pesticides, herbicide and fungicide.

		flora and micro fauna.	
4	Feedback to Higher Authorities Theory 10 hours Practical 0 hours Corresponding NOS RSC / N 5006	<ul style="list-style-type: none"> • Generate innovations through expertise. • Report to the higher authorities for trial, modifications and evaluation. • Implement/adopt the approved innovations. • Identify the issues requiring troubleshooting. • Report to the higher authorities for diagnosing and remedial action. • Carry out protection measures. • Report on the effectiveness of the control measures. • Report on the effect of climatic factors on the functioning of the factory. • Identify appropriate location specific indigenous knowledge. • Report it to higher authorities for trial, evaluation and adoption with modifications, if any. • Report on the results of such trials. • Identify the socio-economic issues. • Report it to higher authorities for investigation and solution. • Generate awareness of the conflict existing and its possible causes. • Report it to the higher authority for resolving the issues. • Extend possible help for solving the conflict. 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer
5	Health and Safety Theory 05 Hours Practical 15 hours Corresponding NOS Bridge Module	<ul style="list-style-type: none"> • Identify different methods of first aid. • Perform first aid. • Understand CPR. • Perform CPR in case of emergency. 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer, CPR Mannequin, First Aid Kit
6	Soft Skills Theory 03 Hours Practical 05 hours Corresponding NOS Bridge Module	<ul style="list-style-type: none"> • Understand Art of Effective Communication. • Able to handle effective Communication with co-workers and their Family. • Able to handle effective Communication with Peers/ colleagues using medical terminology in communication. • Learn basic reading and writing skills. • Follow basics of grooming and personal health • Effectively work in a team • Manage time effectively • Prepare for interviews 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer
7	IT Skills	<ul style="list-style-type: none"> • Understand parts of a computer • Understand basics of computer and 	Power point presentation, LCD

<p>Theory 12 hours</p> <p>Practical 25 hours</p> <p>Corresponding NOS Bridge Module</p>		<p>concept of motherboard</p> <ul style="list-style-type: none"> • Use Microsoft Word • Use Microsoft PowerPoint • Use Microsoft Excel • Understand Internet and its uses 	<p>projector, Computer, LCD screen, white board, marker, pointer, Microsoft Office, Internet Connectivity</p>
<p>Total 250 hrs</p> <p>Theory 100 Hours</p> <p>Practical 150 Hours</p>			

Grand Course Duration: **250 Hours**

(This syllabus/ curriculum has been approved by [Rubber Skill Development Council](#))

Trainer Prerequisites for Job role: “Rubber Nursery Worker - General” mapped to Qualification Pack: “RSC/ Q 6005”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “ <u>RSC/ Q 6005 VERSION 1.0</u> ”.
2	Personal Attributes	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Any Graduate preferably in rubber or polymer
4a	Domain Certification	Certified for Job Role: “ <u>Rubber Nursery Worker - General</u> ” mapped to QP: “ <u>RSC/ Q 6005</u> ”. Minimum accepted score as per RSDC guidelines is 80%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “ <u>SSC/ Q1402</u> ”. Minimum accepted score as per RSDC guidelines is 80%
5	Experience	5+ years of relevant work-experience, above supervisor level

Annexure: Assessment Criteria

Assessment Criteria for Rubber Nursery Worker – General

Job Role	Rubber Nursery Worker - General
Qualification Pack	RSC/ Q 6005 VERSION 1.0
Sector Skill Council	Rubber

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for Qualification Pack has been created based on the NOSs and performance criteria by RSDC. Each Performance Criteria (PC) has been assigned marks proportional to its importance within NOS and weightages have also been given among the NOSs accordingly. RSDC has laid down the proportion of marks for Skills and Theory 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 centre based on this criteria
5	To pass the Qualification Pack , every trainee should score a minimum of 70% aggregate
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

Assessable Outcome	Assessment Criteria	Mark Allotted		
		Total	Theory	Practical
1. RSC / N 6010 Rubber nursery Practices	PC1. Sorting of quality of the seeds	5	1	4
	PC2. Viability test of the seed	5	1	4
	PC3. Temporary storage of seeds	2	2	0
	PC4. Carry out timely sowing of the seeds	2	1	1
	PC5. Prepare the land and make germination beds as per specification	4	1	3
	PC6. Placing of seeds in the germination medium and cover with coir mat/gunny bags	4	2	2
	PC7. Watering the germination beds to maintain optimum moisture	3	1	2
	PC8. Cast proper land preparation technique and design seedling nursery Beds as per specification	1	1	0
	PC9. Select the best quality germinated seeds and transport without damage	2	1	1
	PC10. Carry out planting of germinated seeds with suitable spacing	3	1	2
	PC11. Ensure planting of germinated seeds at the right stage	2	2	0
	PC12. Irrigate, if required	2	1	1
	PC13. Carry out timely weeding (minimum three rounds-before fertilizer applications and bud grafting)	5	1	4
	PC14. Carry out fertilizer application (basal dressing with compost and rock phosphate; 2500 kg of 10:10:4:1.5 NPKMg per effective hectare (1 dose) and 550 kg urea per effective hectare (2 nd dose).	5	1	4
	PC15. Carry out mulching irrigation etc	6	2	4
	PC16. Identify diseases and prescribe suitable chemicals and undertake Plant protection measures	5	1	4
	PC17. Thinning out of weaklings/undesired seedlings	5	1	4
	PC 18. Carry out seedling census	1	1	0
	PC19. Identify clones for raising multi clone bud wood nursery	1	1	0
	PC20. Plant mother plants with spacing as per specification	1	1	0
	PC21. Clone identification and labelling	1	1	0
	PC22. Weeding	2	2	0
	PC23. Application of fertilizer ((basal dressing with 150 kg powdered rock phosphate per hectare; NPKMg 10:10:4:1.5 mixture at the rate of 250 g/plant in two split doses and 10:10:4:1.5 mixture at the rate of 125 g/plant two to three months after cutting back)	1	1	0
	PC24. Identify diseases and prescribe suitable chemicals and undertake Plant protection measures	1	1	0
	PC25. Carry out Pruning	1	1	0
	PC26. Collection of bud wood for budding/sale (for young bud grafting/Green Bud grafting/brown bud grafting)	1	1	0

	PC27. Cut backing of discarded/unutilised bud wood	1	1	0
	PC28. Seed at stake method- placing germinated seeds in the poly bags/Root Trainer cups for raising seedlings for bud grafting	1	1	0
	PC29. Select good quality seeds	1	1	0
	PC30. Germination of seeds	1	1	0
	PC31. Plant in the poly bags/root trainer cups & after care	2	2	0
	PC32. Cut backing of bud grafted plants for further development	1	1	0
	PC33. Direct planting of Bud grafted stump method-planting bud grafted Stumps in the poly bag/ root trainer cups.	1	1	0
	PC34. Selection of poly bags of appropriate size and specifications	1	1	0
	PC35. Preparation of potting mixture	1	1	0
	PC36. Planting of germinated seeds/bud grafted stumps	1	1	0
	PC37. Watering for maintaining optimum soil moisture	1	1	0
	PC38. Provide shade to regulate sun light	1	1	0
	PC39. Fertilizer application and disease management	1	1	0
	PC40. Selection of root trainer cups of appropriate size and specifications	1	1	0
	PC41. Seasoning of coir pith (soaking in water to remove resins, tannin etc	1	1	0
	PC41. Preparation of potting mixture (chemical treatment)	1	1	0
	PC43. Potting mixture filling	1	1	0
	PC44. Plant germinated seeds/ bud grafted stumps and after care	1	1	0
	PC45. Watering for maintaining optimum soil moisture	1	1	0
	PC46. Provide shade to regulate sun light	1	1	0
	PC47. Fertilizer application and disease management	1	1	0
	PC48. Root air pruning and Hardening	1	1	0
	PC49. Pulling out of bud grafted plants	1	1	0
	PC50. Cut backing of stock plant, pruning roots and waxing	1	1	0
	PC51. Counting, Bundling and packing of budded stumps in banana sheath	1	1	0
	PC52. Cutting of bud wood, waxing and packing in banana sheath for Transportation	1	1	0
	PC53. Sorting and loading of poly bag plants for sale	2	2	0
	PC54. Mounting on racks and loading of root trainer plants for sale	0	0	0
		100	60	40
2. RSC / N 5005 Natural Resource Management	PC1. The possibilities of soil erosion	6	3	3
	PC2. Precautions to be taken to minimize the soil erosion during soil manipulation	6	3	3
	PC3. Correct method and direction of bed preparation compatible for terrain	6	3	3

	PC4. Correct method of drainage making	6	3	3
	PC5. Reuse of river sand used as seed germination medium	6	3	3
	PC6. Hedge maintenance	6	3	3
	PC7. Protection of water source from pollution	6	3	3
	PC8. Rain water harvesting	6	3	3
	PC9. Judicious use of water during irrigation	6	3	3
	PC10. Mulching for soil and moisture conservation	6	3	3
	PC11. Importance of premise cleanliness	4	2	2
	PC12. Collection of empty containers, worn out polythene bags, waste budding tapes, fertilizer bags etc from the field.	4	2	2
	PC13. Use of dried leaves from the cut back portions of bud wood, seedlings after pulling out for mulching	4	2	2
	PC14. Treatment of waste water from coir pith seasoning	4	2	2
	PC15. Destroy sources of mosquito breeding to control epidemic	4	2	2
	PC16. Consequences of chemical contamination	4	2	2
	PC17. Use of pesticides and fungicides as per recommendations	4	2	2
	PC18. Use herbicides judiciously	4	2	2
	PC19. Spraying & handlings chemicals using hood, masks, gloves etc	4	2	2
	PC20. Use chemical fertilizer as per recommendations only	4	2	2
		100	50	50
3. RSC / N 5006 Natural Resource Management	PC1. Generate innovations through expertise	5	5	0
	PC2. Report to the higher authorities for trial, modifications and evaluation	5	5	0
	PC3. Implement/adopt the approved innovations	5	5	0
	PC4. Identify the incidence of pest and disease	15	5	10
	PC5. Report to the higher authorities for diagnosing and remedial action	15	5	10
	PC6. Carry out protection measures	15	5	10
	PC7. Identify appropriate situation/location specific Indigenous Knowledge	5	5	0
	PC8. Report to higher authorities for trial, evaluation and adoption with Modifications, if any	5	5	0
	PC9. Identify the existence of socio-economic problems	5	5	0
	PC10. Report to higher authorities for investigation and solution	5	5	0
	PC11. Extent possible help for solving the problem	5	5	0
	PC12. Aware of the conflict existing and its possible cause	5	5	0
	PC13. Report to the higher authority for rectification	5	5	0
	PC14. Extent possible help for solving the conflict	5	5	0
		100	70	30



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