

Model Curriculum

Latex Harvest Technician (Tapper)

SECTOR: Rubber Industry
SUB-SECTOR: Natural Rubber (NR) Plantation
OCCUPATION: Production – NR
REF ID: RSC/Q6103, 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: Latex Harvest Technician QP No. 'RSC/ Q 6103
NSQF Level 4

Date of Issuance: **December 15, 2015**
Valid Upto: **December 15, 2017**

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



Authorised Signatory

Rubber Skill Development Council

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Latex Harvest Technician

CURRICULUM/SYLLABUS

This program is aimed at training candidates for the job of a “Latex Harvest Technician”, in the “Rubber” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Latex Harvest Technician		
Qualification Pack Name & Reference ID. ID	RSC/ Q 6103		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	Preferred Class 10 th (High School Education)		
Training Outcomes	After completing this programme, participants will be able to: <ul style="list-style-type: none"> • Latex harvesting / processing • Natural Resources Management • Provide Feedback to Higher Authorities • To learn Entrepreneurship Skills 		

This course encompasses three out of three National Occupational Standards (NOS) of “RSC/ Q 6103” 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 Latex Harvest Technician 	Laptop, white board, marker, projector
2	Latex Harvest and Processing Theory 25 hours Practical 40 hours Corresponding NOS RSC/ N6103	<ul style="list-style-type: none"> Collect field coagulum from each tree just before tapping . Keep the tapping tools and utensils for handling latex clean. Ensuring proper hygiene in latex harvest Harvest 300 – 400 rubber trees by tapping early in the morning keeping the recommended scientific standards. Use the recommended tools and devices as per approved standards Collect the latex from each tree, after giving sufficient time for the latex flow to cease. Hand over the latex / field coagulum to the appropriate authority. Proper usage of panel protectants in the field. Report on the work done to the appropriate authority Proper usage of rain guarding materials and fixation of rain guards Stimulation of latex flow using chemical stimulants Use anticoagulants such as ammonia and Sodium Sulphite Preparation of stock solutions of anticoagulants and their addition to latex in the cup as well as in the bucket. Avoid contamination of latex and field coagulum in the field and its prevention Ensure proper sieving of latex and its importance. Bring the latex and the field coagulum to the collection centre/ processing factory. 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer. Plastic cups, hanger, rope tape, tapping knife.
3	Natural Resource Management Theory 20 hours	<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. 	Laptop, white board, marker, projector, Rain guard material, chemical to prevent damage,

	<p>Practical 35 hours</p> <p>Corresponding NOS RSC/ N5005</p>	<ul style="list-style-type: none"> • Know and implement correct method of providing proper drainage. • Maintain Hedges efficiently. • Protect water source from pollution. • Understand and undertake rain water harvest. • 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 flora and micro fauna. • Importance of premise cleanliness • Collection and storage of empty containers, worn out polythene bags, waste budding tapes, fertilizer bags etc. from the field for reuse/disposal • Use of dried leaves from the cut back portions of bud wood, seedlings after pulling out for mulching • Use of personal protective devices to minimize damages due to exposure • Timely detection and treatment for diseases to avoid over dosage of chemicals • Prevention of diseases and moisture depletion through appropriate management strategies • Treatment of waste water from coir pith seasoning • Destroy sources of mosquito breeding to control possible epidemics • Awareness about consequences of chemical contamination • Use of pesticides and fungicides only as per recommendations • Use of stimulants as per recommendations. • Use herbicides judiciously • Spraying & handling chemicals using hood, masks, gloves etc. • Use chemical fertilizer as per recommendations only • Usage of organic and bio- fertilizers • Usage of plant growth hormones and bio 	<p>Cleaning equipments like dust picker, hand mop, dry mop, brush etc., Straight fertilizers, Mask, gloves, Growth hormones</p>
4	<p>Feedback to Higher Authorities</p> <p>Theory 15 hours</p> <p>Practical 0 hours</p> <p>Corresponding NOS RSC / N 5006</p>	<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, 	<p>Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer, feedback forms, reporting formats</p>

		<p>evaluation and adoption with modifications, if any.</p> <ul style="list-style-type: none"> • 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. 	
5	<p>Learn Entrepreneurship Skills</p> <p>Theory 8 hours</p> <p>Practical 10 hours</p> <p>Corresponding NOS RSC / N 5013</p>	<ul style="list-style-type: none"> • Importance of being aware to identify profitable business opportunity (Opportunity can be in the form of new material in use, new process, new technology, new market etc) • Maintain the confidentiality till the completion of working on the idea • Discuss the opportunity (with trusted ones) to evaluate its feasibility • Arrange/organize related documents/information • Monitor the development at competitors' end • Sustain existing business and make continual improvements • Evaluate possibilities of process simplification , combining process steps (wherever applicable) ,reducing manpower dependency • Acquire new information for optimal allocation of resources before others to gain profit • Understanding the requirement of different factors of production: land, labour and capital • Acquire and deploy necessary resources for exploitation of identified business opportunity • Develop a business plan • Acquire financial and material resources • Organize to hire experienced and efficient human resource • Arrange for best factory set up • Raise capital from different sources keeping the interest cost at minimum • Arrange for purchase, effective utilization and management of the resources • Assume risk and deal with uncertainty • Take initiative to start something new (process, product etc.) • Convert new idea into successful innovation • Replace in whole or in part inferior offerings creating new products/business model • Develop new combinations of existing inputs • To be more competitive work towards cost reduction through efficiency, improvement in quality, bring in new product/features of product • Acquire semi or fully automatic units for improved productivity • Collection and recording of all information • Compilation, analysis and documentation • Correspondence with vendors, clients, govt. agencies and public 	

		<ul style="list-style-type: none"> Document notifications/letters from Government agencies and management 	
6	Health and Safety Theory 2 Hours Practical 5 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
7	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 Theory 5 hours Practical 25 hours Corresponding NOS Bridge Module	<ul style="list-style-type: none"> Understand parts of a computer Understand basics of computer and concept of motherboard Use Microsoft Word Use Microsoft PowerPoint Use Microsoft Excel Understand Internet and its uses 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer, Microsoft Office, Internet Connectivity
	Total 200 hrs. Theory 80 Hours Practical 120 Hours		

Grand Course Duration: 200 Hours

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

Trainer Prerequisites for Job role: “Latex Harvest Technician (Tapper)” mapped to Qualification Pack: “RSC/Q 6103”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “RSC/Q 6103 VERSION 1.0”.
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
3	Minimum Educational Qualification	Any Graduate preferably in rubber or polymer
4a	Domain Certification	Certified for Job Role: “ <u>Latex Harvest Technician (Tapper)</u> ” mapped to QP: “ <u>RSC/Q 6103</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: “SSC/ Q1402”. 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 Latex Harvest Technician (Tapper)	
Job Role	Latex Harvest Technician (Tapper)
Qualification Pack	RSC/Q 6103 VERSION 1.0
Sector Skill Council	Rubber

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 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 Strategy			Marks Allocation		
NOS	Elements	Performance Criteria	Total	Theory	Practical
1. RSC/ N6103 (Latex harvesting/processing)	Latex harvesting and Collection	PC1. Harvest 300 – 400 rubber trees by doing tapping early in the morning keeping the recommended scientific standards.	12	3	9
		PC2. Use the recommended tools and devices as per approved standards	6	0	6
		PC3. Collect the latex from each tree, after giving sufficient time for the latex flow to cease.	3	2	1
		PC4. Collect field coagulum from each tree just before tapping	3	0	3
		PC5. Keep the tapping tools and utensils for handling latex clean.	3	0	3
	Preservation and Protection	PC6. Bring the latex and the field coagulum to the collection centre/ processing factory.	0	0	0
		PC7. Hand over the latex / field coagulum to the appropriate authority.	0	0	0
		PC8. Proper usage of panel protectants in the field	9	0	9
		PC9. Report on the work done to the appropriate authority	3	3	0
		PC10. Proper usage of rain guarding materials and fixation of rain guards	6	0	6
		PC11. Stimulation of latex flow using chemical stimulants	3	0	3
		PC12. Ensuring proper hygiene in latex harvesting	3	0	3
		PC13. Use anticoagulants such as ammonia and Sodium Sulphide	6	0	6
		PC14. Preparation of stock solutions of anticoagulants and their addition to latex in the cup as well as in the bucket	15	0	15
		PC15. Avoid contamination of latex and field coagulum in the field and its prevention	9	3	6
		PC16. Ensure proper sieving of latex and its importance.	16	6	10
		PC17. Tackling snake menace in rubber plantations and knowledge about avoiding such risks	3	3	0
		100	20	80	
2. RSC/ N 5005 (Natural Resource)	Natural resource management	PC1. The possibilities and causes of soil erosion	2	2	0
		PC2. Precautions to be taken to minimize soil	4	2	2

Manag ement)		erosion			
		PC3. Correct method and direction of terrace preparation	9	0	9
		PC4. Correct method of providing proper drainage	9	0	9
		PC5. Reuse of river sand used as seed germination medium	2	2	0
		PC6. Hedge maintenance	2	0	2
		PC7. Protection of water source from pollution	2	2	0
		PC8. Rain water harvesting	9	0	9
		PC9. Judicious use of water during irrigation	4	0	4
		PC10. Mulching for soil and moisture conservation	4	0	4
		PC11. Avoiding excess dosage of fertilisers and chemicals to minimise damage to soil microflora and micro fauna	4	4	0
		Waste managem ent & Health care	PC12. Importance of premise cleanliness	2	0
	PC13. Collection and storage of empty containers, worn out polythene bags, waste budding tapes, fertilizer bags etc. from the field for reuse/disposal		4	2	2
	PC14. Use of dried leaves from the cut back portions of bud wood, seedlings after pulling out for mulching		9	4	5
	PC 15. Use of personal protective devices to minimize damages due to exposure		4	4	0
	PC16. Timely detection and treatment for diseases to avoid over dosage of chemicals		2	2	0
	PC17. Prevention of diseases and moisture depletion through appropriate management strategies		4	4	0
	Input (chemical) managem ent	PC18. Treatment of waste water from coir pith seasoning	4	0	4
		PC19. Destroy sources of mosquito breeding to control possible epidemics	2	0	2
		PC20. Awareness about consequences of chemical contamination	2	2	0
		PC21. Use of pesticides and fungicides only as per recommendations	2	2	0
		PC22. Use of stimulants as per recommendations	2	0	2
		PC23. Use herbicides judiciously	2	0	2
		PC24. Spraying & handling chemicals using hood, masks, gloves etc	4	4	0
		PC25. Use chemical fertilizer as per recommendations only	2	2	0
		PC26. Usage of organic and bio- fertilizers	2	2	0

		PC27. Usage of plant growth hormones and bio-control measures against diseases, weeds etc.	2	0	2
			100	40	60
3. RSC/ N 5006 (Feedback to higher authorities)	Feedback on innovations	PC1. Generate innovations through expertise	5	5	0
		PC2. Report to the higher authorities for trial, modifications and evaluation	0	0	0
		PC3. Implement/adopt the approved innovations	10	0	10
	Feedback on incidence of pest and diseases	PC4. Identify the incidence of pests and disease	20	0	20
		PC5. Report to the higher authorities for diagnosing and remedial action	0	0	0
		PC6. Carry out protection measures	10	10	0
		PC7. Reporting on the effectiveness of the control measures	5	5	0
	Feedback on indigenous knowledge /ITK	PC8. Reporting on the effect of climatic factors on the health of plants	5	5	0
		PC9. Identify appropriate situation/location specific indigenous knowledge	15	15	0
		PC9. Identify appropriate situation/location specific indigenous knowledge	5	5	0
		PC10. Report to higher authorities for trial, evaluation and adoption with modifications, if any	0	0	0
	Feedback on socio-economic problems	PC11. Report on the results of such trials	0	0	0
		PC12. Identify the existence of socio-economic problems	10	10	0
		PC13. Report to higher authorities for investigation and solution	0	0	0
	Feedback on conflicts	PC14. Extent possible help for solving such problems	0	0	0
		PC15. Aware of the conflict existing and its possible causes	10	10	0
		PC16. Report to the higher authority for rectification	0	0	0
PC17. Extent possible help for solving the conflict		5	5	0	
			100	70	30
4. RSC/ N5013 (To Learn Entrepreneurship Skills)	Business opportunity	PC1.Importance of being aware to identify profitable business opportunity (Opportunity can be in the form of new material in use, new process, new technology, new market etc)	2	2	0
		PC2.Maintain the confidentiality till the completion of working on the idea	3	2	1
		PC3.Discuss the opportunity (with trusted ones) to evaluate its feasibility	5	3	2
		PC4.Arrange/organize related documents/information	4	3	1
	Sustain existing	PC5.Monitor the development at competitors' end	2	2	0

	business				
		PC6.Sustain existing business and make continual improvements	4	2	2
		PC7.Evaluate possibilities of process simplification , combining process steps (wherever applicable) ,reducing manpower dependency	4	2	2
		PC8.Acquire new information for optimal allocation of resources before others to gain profit	4	2	2
	Factors of Production	PC9.Understanding the requirement of different factors of production: land, labour and capital	5	3	2
		PC10.Acquire and deploy necessary resources for exploitation of identified business opportunity	5	3	2
		PC11.Develop a business plan	5	3	2
		PC12.Acquire financial and material resources	5	3	2
		PC13.Organize to hire experienced and efficient human resource	4	2	2
		PC14.Arrange for best factory set up	4	2	2
		PC15.Raise capital from different sources keeping the interest cost at minimum	4	2	2
	Risk and initiative	PC16.Arrange for purchase, effective utilization and management of the resources	4	2	2
		PC17.Assume risk and deal with uncertainty	2	0	2
	Innovation	PC18.Take initiative to start something new (process, product etc.)	2	0	2
		PC19.Convert new idea into successful innovation	2	0	2
		PC20.Replace in whole or in part inferior offerings creating new products/business model	4	2	2
	Bring in Improvement	PC21.Develop new combinations of existing inputs	4	2	2
		PC22.To be more competitive work towards cost reduction through efficiency, improvement in quality, bring in new product/features of product	5	3	2
	Document ation	PC23.Acquire semi or fully automatic units for improved productivity	5	3	2
		PC24.Collection and recording of all information	3	3	0
		PC25.Compilation, analysis and documentation	3	3	0
PC26.Correspondence with venders, clients, govt. agencies and public		3	3	0	
	PC27.Document notifications/letters from Government agencies and management	3	3	0	
	Total	100	60	40	



Rubber Skill Development Council

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