



Advanced Molecular Plant Pathology Laboratory starts functioning at RRII



Dr. K.N Raghavan, Executive Director, Rubber Board inaugurated the Advanced Molecular Plant Pathology Laboratory at Rubber Research Institute of India (RRII). Dr. KN Raghavan in his inaugural address said that “timely control of diseases in rubber is very important in preventing crop loss and increasing the income of rubber growers. The advanced molecular plant pathology laboratory will be helpful in developing techniques for early detection of pathogens and for development of efficient management practices to control diseases”. Plant Pathology Division is one of the earliest disciplines in RRII, started functioning in 1955. The newly inaugurated laboratory is modernized with advanced equipments like Real Time PCR machine, High Speed Centrifuge, Gel Documentation system etc. for advanced research in the area of Plant Pathology. Dr. M.D. Jessy (Director, Research) in charge, P. Sudha (Director, Training) and Dr. Shaji Philip (Principal Scientist) spoke on the occasion.

The molecular plant pathology is functioning with a major priority of research being focused on understanding molecular mechanism of host- pathogen interaction thereby helping in monitoring of pests and diseases. Research is also focused on identifying genes involved in disease resistance for their in cooperation in developing genetically modified (GM) rubber trees. Work on development of markers for disease tolerance and mapping of quantitative trait loci for marker assisted selection (MAS) is in progress. MAS is a method of selecting elite individuals possessing desirable traits from a large population at a juvenile stage itself. Work is also focused on molecular exploration on plant-beneficial microbe interplay, which helps in evolving efficient and cost effective biological control strategies for improving disease and pest control. Studies on biotic etiology of Tapping Panel Dryness (TPD) are also in progress in attempt to manage TPD, a major disorder in rubber trees. ■

Highlights

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Rainguard your trees to guard your income in rainy season

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Rainguard your trees to Guard your income in rainy season

Grower's
Corner



During rainy season, tapping can be carried out by fixing a rainguard above the tapping cut and prevent loss of tapping days and thus yield due to rain. Regular tapping can be ensured by rainguarding under any given tapping frequency. For rainguarding, a suitable device is fixed on the trunk just above the tapping cut and flow of water through the main trunk is channeled out. This method is found to be effective in keeping the tapping cut and the bark below and above within the rainguard in dry condition during the rainy season. To obtain optimum yield under LFT system, timely fixing of good quality rainguard and maintaining it leak proof throughout the

monsoon is essential.

Four types of rainguard, viz. polythene skirt, tapping shade, Guardian/Kissan rainguards and tapping shield are recommended.

Materials required to rainguard 300 trees (average size) following polythene skirt method are:

1. LDPE virgin polythene 300 gauge, 45 cm wide: 12-14 kg
2. Bituminous rainguard compound: 30-35 kg
3. Cora cloth : 6 m or LDPE 400 gauge ribbon with 2.5 cm wide; 600-700 g
4. Staple pins (No. 10 for virgin bark and 24/6 for renewed bark): 2000 Nos. (2 box)

Ready to use good quality rainguard compound should be used for fixing. Bituminous compound should not be heated on fire or mixed with kerosene to make it loose. Before use, irrespective of the brand, rain-



guard compound may be tested for phytotoxicity. For this, the compound should be applied as a band on a few trees, on the renewing bark above the tapping cut. If no symptoms like exudation of latex from bark underneath the applied band and tissue damage is observed within a week, the compound may be used for rainguarding. For efficient rainguarding, polythene sheet may be frilled before fixing (frill size of 7 mm with 1.5 cm gap between adjacent frills).

During monsoon period there are chances for leakage of rainguard leading to considerable crop loss on rainy days and partial loss during few more subsequent tappings after monsoon.



This can be prevented by fixing a mini rainguard of 3 inch wide LDPE sheet just above the current year's rainguard during August – September just like normal rainguarding, but without frill and a second coating of compound.

Chances of bark rot are high when the trees are rainguarding and tapping is continued during rainy season. Irrespective of the type of rainguard used, regular panel washing using fungicide (mancozeb 0.375%) at 10-15 days interval

is necessary to prevent incidence of panel diseases. Spraying of fungicide is not very effective to prevent panel disease. With the introduction of low frequency tapping, rainguarding is needed even under low rainfall.



Important farm activities in April

Grower's
Corner

Rainguarding



Procurement of materials such as bituminous compound, polythene, fixing materials etc. may be done for rainguarding. Depending on the area to be covered, the rainguarding may be undertaken from April.

Spraying for the control of Abnormal leaf fall

The materials viz. Copper sulphate, lime, COC, spray oil etc. required for prophylactic spraying in May against abnormal leaf fall may be procured 30-50 kg of CuSO₄ and lime or 8 kg COC and 40 L spray oil may be required per hectare. The spray equipment may be serviced well in advance.

Weeding

Weeding should be carried out before the fertilizer application. Weeds are then kept aside for drying and dried weeds can be used for mulching the plant basin.



Land Preparation

Land preparation for new planting and replanting can be continued during this period. Large trees of economic value should be removed first followed by felling and removal of smaller trees and slashing of undergrowth in the case of new planting. A light burn after felling and drying facilitates planting operations. Lining, terracing and pitting also may be undertaken during this period. Rubber may be planted either by adopting square (for level land) or rectangular (for level and near level lands) planting system. In undulating and hilly areas, contour lining should be undertaken and terraces should be cut along the contour to conserve moisture and prevent soil



erosion. Instead of taking continuous terraces in the beginning, for economy, individual square platforms of size 1.25 m x 1.25 m can be constructed around each plant point and later on they can be joined together to form continuous terraces. Provision should be made for proper drainage.

Planting distance

The density recommended for proper growth and development of rubber is about 420-445 plants/ha. In the case of budded plants. It is preferable that the density should not exceed 500/ha.

Pitting and refilling

The standard size of the pit is 75 cm x 75 cm x 75 cm. In hard and stony soils, pits of size 90 cm x 90 cm x 90 cm can be taken. Filling should be done with top fertile soil. Well decomposed and powdered cow dung or compost at the rate of 12 kg and rock phosphate at the rate of 175 g per pit may be mixed with the top 30 cm soil in the pit.

Soil and water conservation

In sloppy areas, soil conservation measures may be undertaken at the time of land preparation itself to prevent soil erosion and to conserve water. Construction of stone pitched contour bunds (Edakkayyalas) and silt pits are the common conservation practices recommended other than contour terracing. Silt pits (trenches) of about 120 cm length, 45 cm width and 60 cm depth can be taken across the slope on the interspaces of rubber at the rate of about 250 pits per hectares.

Fertilizer application

Fertilizer recommendation to the individual fields based on soil and or leaf analysis or satellite based fertilizer recommendations (RUBSIS) will be more advantageous and economical and as far as possible it has to be followed. The facilities at the



central soil and leaf testing laboratory attached to the Rubber Research Institute of India or the Regional laboratories can be utilized. For details regarding general recommendation of fertilizer application visit 'Cultural practices' on www.rubberboard.gov.in

TRAINING PROGRAMMES OF THE RUBBER BOARD

The following training courses will be conducted at the Rubber Training Institute during June 2021

1. Bee keeping in rubber plantations : 12 April 2022

This one day course imparts training on beekeeping to farmers/SHG members for additional income generation. Rubber growers, farmers, RPS, SHG members can apply for this course. Fees prescribed for this course is Rs.500/- + GST 18%.

2. Good Agricultural Practices for sustainable rubber production : 13 April 2022 (Online)

Training is on enhancing production, productivity and reducing cost through Good Agricultural Practices in rubber plantations. Farmers and persons from estate sectors can apply for this course. The fee is Rs.375/-+18% GST

3. Capacity building for Director Board Members of RPS: 18-19 April 2022

These 2 days sponsored training impart managerial skills to Director Board Members of RPSs towards capacity building of the Societies. Director Board members of RPS selected by the Rubber Board can participate in this programme by contacting their corresponding RPS. Fees: Nil

4. Short term training on Latex Goods Manufacture :18-22 April 2022

Entrepreneurs/interested persons from latex product manufacturing industries can apply. The course content includes latex collection, preservation and concentration, compounding ingredients, latex compounding, product design, production of rubber band, gloves, foam rubber, adhesives and balloons and its quality control aspects. The fee is Rs.3750/-(Non-residential) + 18% GST Medium of instruction is English

5. Rainguarding : 20 April 2022

Rubber farmers and interested persons can apply for this course. The course contents include different methods of rain guarding and

knowledge on rain guarding. The fee prescribed for this course is Rs.500/-+ 18% GST

6. Manuring in rubber : 26 April 2022

This one day course content imparts knowledge on fertilizer recommendation, discriminatory fertilizer application and manuring in rubber. Farmers, Estate managers, nursery owners, interested persons from plantation sector can apply for this course. Fees prescribed for this course is Rs.500/- + GST 18%

6. Rubber Processing & Quality Control: 27-29 April 2022

This short term course content includes composition of natural rubber latex, collection and preservation, preparation of sheet rubber, grading, concentration of preserved latex, solid block rubber, EBC, PLC, testing of block rubber and cenex, effluent treatment and pollution control. Fees prescribed for this course is Rs.4500/- + 18% GST.

SC/ST participants are eligible to get 50% concession in course fee on production of caste certificate. Payment can be made by direct remittance to the Board's account with Central Bank of India, RB, Kottayam, IFS Code CBIN0284150 A/C No. 1450300184. For details contact 0481 2353127, 2353326, 2351313, 2353325. Fax No. 0481 2353187. E-mail: training@rubberboard.org.in.

DAILY NATURAL RUBBER PRICE - MARCH 2022								
[Price/Rs/Qt]								
DATE	Domestic						International	
	Kottayam			Kochi			Bangkok	
	RSS-4	RSS-5	60%LATEX	RSS-4	RSS-5	RSS-3	RSS-4	
01-03-2022	16550	16350	11940	16550	16350	17082	17013	
02-03-2022	16600	16400	11940	16600	16400	17211	17141	
03-03-2022	16700	16500	11890	16700	16500	17278	17209	
04-03-2022	16700	16500	11995	16700	16500	17137	17067	
05-03-2022	16700	16500	Holiday	16700	16500	Holiday	Holiday	
06-03-2022	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	
07-03-2022	16750	16550	12045	16750	16550	17118	17048	
08-03-2022	16750	16550	12150	16750	16550	17033	16963	
09-03-2022	16850	16650	12260	16850	16650	17049	16979	
10-03-2022	16950	16700	12365	16950	16700	17048	16979	
11-03-2022	17050	16800	12470	17050	16800	16857	16788	
12-03-2022	17200	16900	Holiday	17150	16900	Holiday	Holiday	
13-03-2022	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	
14-03-2022	17300	17000	12470	17250	17000	16875	16806	
15-03-2022	17350	17100	12520	17300	17100	16870	16802	
16-03-2022	17200	17000	12415	17200	17000	16703	16634	
17-03-2022	17100	16900	12415	17100	16900	16702	16633	
18-03-2022	17100	16900	12365	17100	16900	16798	16729	
19-03-2022	17100	16900	Holiday	17100	16900	Holiday	Holiday	
20-03-2022	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	
21-03-2022	17100	16900	12310	17100	16900	16793	16725	
22-03-2022	17200	16950	12310	17200	16950	16837	16769	
23-03-2022	17200	17000	12310	17200	17000	16931	16863	
24-03-2022	17250	17050	12310	17250	17050	16978	16910	
25-03-2022	17300	17100	12260	17300	17100	17140	17072	
26-03-2022	17350	17150	Holiday	17350	17150	Holiday	Holiday	
27-03-2022	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	
28-03-2022	17350	17150	12260	17350	17150	17276	17208	
29-03-2022	17400	17150	12260	17400	17150	17249	17181	
30-03-2022	17450	17200	12260	17450	17200	17333	17266	
31-03-2022	17500	17300	12205	17500	17300	17622	17554	
Average	17076	16857	12249	17070	16857	17040	16971	