

STEM FASCIATION IN HEVEA

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"Fasciation" is a morphological term applied most commonly to an abnormal stem condition in vascular plants in which the affected regions become flattened, banded or ribbon shaped (Dave et al. 1986). The term fasciation is derived from the latin, 'fascia'-a banding. More or less typical fasciation have been recorded from 107 of the 303 plant families as per Englers' plant classification. When fasciation occurs in stem, the early growth stages are cylindrical or normal and as the branch approaches maturity, the growing point becomes broader and broader. The most striking characteristics of fasciation are the increase by weight and volume of tissue over that of the normal type of the same variety of species.

It is noted that fasciation is very common in certain genera and species than in others, for eg., members of Euphorbiaceae which Hevea belongs to. In the budwood nursery, cut back of the shoots will be done and the new sprouts develop, among these few shows flattening and coiling of the stem (figure) with branches of leaves nearer to the shoot apex.

(Radhakrishna Pillay, 1980). Some of the sprouts arised from the wind damaged region also fasciated. Side branches arise from the banded region are rounded with suficient internodal length between petioles.

Fasciation may be due to various reasons like physiological, pathological, ecological or genetic. This ranges from hard water, severe



pruning, mutation by insects, bacterial or fungal infection, nematodes, soil friction, short day length, chromosome aberrations, highly manured soil, insufficient nutrition, 2,3 -D etc. (Kundu and Rao 1960; Dave et al. 1989). In any case the basic cause for fasciation is disturbed metabolism involving excessive nutrient, which mobilizes

more energy leading to abnormal tissue production. Grafting also has been suggested as a possible cause for fasciation. From the above point it is assumed that the real reason for fasciation in Hevea may be due to severe pruning.

According to Chen. et al. (1991) fasciation in Hevea is a symptom

(contd. on Page 31)

WORLD BANK LOAN TO VIETNAM

The World Bank has granted a loan to Vietnam's rubber industry also. The loan amount will be utilised to increase the area under rubber in Vietnam.

Vietnam is earning a sizeable amount of foreign exchange by exporting rubber latex and rubber wood.

HML RUBBER MARK LINK

Kerala State Co-operative Rubber Marketing Federation (Rubber Mark) has signed a memorandum of understanding with Harrisons Malayalam Ltd. for marketing of high quality natural rubber in the global market. The federation has six crumb rubber factories with a total capacity of 15000 tonnes per annum. It would go into production of high quality technically specified rubber of international standard with HML's Research and Development support.

Mr KA Kuttaiah, HML's Executive Director said that the link would tap global market demands by establishing a market channel abroad.

SEMINAR ON PROTEIN ALLERGY

One day seminar was held at Madras by the Rubber Board on 28th September 93 to discuss the ways to overcome protein allergy in the use of latex products. Protein present in the latex products used in medical applications have been found to be the primary source for severe allergic reaction reported in USA and Europe. Glove manufacturers, raw material producers, Scientists and experts from medical field from different parts of the country participated in the seminar.

The seminar was inaugurated by Smt.J.Lalithambika, Chairman, Rubber Board. Dr.P.George Babu, PHD, Head of the Department of Immunology of Velloor Christian Medical College delivered the key note address. In the technical session chaired by Dr.E.V.Thomas, Director (P & PD), Rubber Board, papers were presented by Mr.S.K.Kammath, AVT Rubber Products Ltd., Mr.K.S.Gopala Krishnan, Mr. Sunny Sebastian and Smt.G.Rajammal of Rubber Board.

(Contd. from Page 24)

coming under the witches broom disease. Infected budded trees showed different degree of dryness of the tapping panel. They have reported mycoplasma like organisms (MLO) and some globular and elliptic shape rickettsia like organism (RLO) in the phloem tissue, especially in sieve tubes and latex vessels of small petioles. Witches' broom budstock are considered as one of the most important primary sources of rubber brown bast in the field. However, the relationship if exist between tapping panel dryness and fasciation is not yet established in rubber (Anonymous, 1992a). When the infected branches and buds were treated with Tetracycline or penicillium, could effectively inhibit the causative agent.

The fasciation has always been sporadic and they have never been found to persist after cutting back (Anonymous, 1992b). If let alone the fasciated branch becomes woody, normal branches overtake it in growth and it develops off.

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IDA CREDIT FOR RUBBER DEVELOPMENT

The International Development Association (IDA), the soft lending affiliate of the World Bank, is extending an interest free credit of US \$ 92 million (Rs.290.08 crores equivalent) for rubber development in India. Agreements in this regard have been signed between IDA on the one hand and Government of India, Rubber Board and NABARD on the other. Shri P.Mukundan Menon, who has earlier served as Rubber Production Commissioner has now been appointed in the Rubber Board as Project Co-Ordinator for the Project.

The Rubber Project approved for implementation would be a time slice covering the period 1993-94 to 1997-98 of the long term rubber plantation development programme of the Government of India and the Rubber Board. The main objectives are to expand and strengthen the rubber plantation sector to step up production and productivity, improve processing and increase on-farm and off-farm employment. The project also aims at strengthening Rubber Board's research, extension and training activities.

The main components of the project are:-

- i) Replanting of old and uneconomic rubber in 40,000 hectares in traditional areas.
- ii) New planting in 30,000 hectares consisting 23,000 hectares in Kerala and Tamil Nadu, 5,000 hectares in Tripura and 2,000 hectares in other non-traditional areas, namely, Assam, Meghalaya, Mizoram and Nagaland.
- iii) Productivity enhancement in 60,000 hectares of mature areas of small holdings in traditional

areas through adoption of improved agro-management and exploitation.

- iv) Expansion/upgradation of rubber and rubber wood processing facilities.
- v) Institutional support for Rubber Board for project co-ordination, research, extension, training and technical assistance.
- vi) Development of women and tribal people amongst participating populations, particularly in Tripura.

With the launching of this project, the rate of planting grant given by the Rubber Board to small holders



P. Mukundan Menon

for replantation and new plantation has been raised from the earlier Rs.5,000 per hectare to Rs.8,000. Cash incentive paid to all categories of growers for use of polybagged plants of advanced growth has been retained at Rs.6 per plant but the upper limit of hectare-wise stand has been raised from 450 to 500. Therefore, growers can now derive the benefit of the incentive upto Rs.3,000 per hectare instead of Rs.2,700 hitherto allowed. Bank loans also would be available to growers to enable them to meet plantation development cost outside Board's grants.

The productivity enhancement programme would cover more than one lakh small growers. In order to

reach and service them effectively, the programme would be implemented through rubber producer's societies of which there are about 1,500 already functioning in all rubber growing areas. More of such societies would be encouraged to be registered and operated progressively. Apart from helping member growers to appreciate and adopt cultivation and production innovations, the societies would also act as nodal agencies for procurement and distribution of needed agro-inputs at concessional prices.

Expansion and upgradation of rubber and rubber wood processing factories would be promoted through grant of bank loans and extension of Rubber Board's engineering support. The programme under this component comprises setting up of 3 new latex centrifuging factories, expansion of 25 existing factories, establishment of 10 block rubber factories, upgrading of 7 existing ones, developing 30 medium scale facilities for production of smoked sheets and conversion of 5 existing crepe rubber factories into 10-12 tonne per day block rubber factories. Additionally, the project would finance 5 rubber wood processing factories and one factory for production of innovative produce like pre-vulcanised latex.

A novel feature of the rubber project is its programme for involving women and tribal people extensively in planting activities, especially in Tripura. While doing this, they will be helped to engage themselves in additional income generating activities such as inter-cropping, sericulture, medicinal plant cultivation etc. Services of suitable non-government organisations (NGOs) would be enlisted to make this a success. ●