

HOW TO INCREASE THE PRODUCTIVITY OF RUBBER IN THE NATIONAL YEAR OF PRODUCTIVITY?

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This year, 1996, has already been declared by the government as the National year of productivity. Among the perennial plantation crops grown in the country, rubber is a crops where results could be seen easily within a short period of less than 12 months to achieve the above goal. In most of the other crops the yield depends mainly on manuring, but when manure is applied to perennial crops, it takes nearly 12 months for such crops to show an increase in the harvest. In the case of Hevea rubber too the time taken to respond for the fertilizer is over 12 months. But there are several other ways of showing improvements in productivity within few weeks/months, such as -

- a. By the proper exploitation techniques.
- b. Minimizing crop losses due to rain interference by fitting rain guards.
- c. Increasing the latex intake per tapper by assigning the correct norm of healthy trees and monitoring their performance.
- d. Eliminating crop losses due to rain interference, by using rain guards.

Among the above 4 points, what is important more for Sri Lanka is the use of rain guards to minimise rain interference on crop collection. The rain interference has been so severe that during the past few years nearly 55% of the smallholders' crop have not been able to be collected due to rain specially in the wet rubber growing districts. However, by means of double tapping which is not freely recommended by the RRI unless some special precautionary measures are adopted, the estates have been able to collect about 55% of the rubber available in the tree. This does not involve stimulation, which is also not recommended in Sri Lanka or in other countries without taking some strict precautionary measures against drying of the trees. Although the tapping cost for double tapping is expected to be lower, when the net cost per kilogramme of rubber is taken there is no saving to the estate concerned that follow this practice. On the other hand, damages can be done to the long-term existence of the tree as a result of double tapping without following the proper recommendations.

Hence, by means of rain guards which can be fitted at an overall cost of not more than Rs.2.50 per tree by making the sealant in the estate itself according to the recipe freely given by the RRI, the yield in estates specially in Kalutara, Ratnapura and colombo districts could be easily increased by over 25%. There is no basis to

believe that tapping cannot commence on heavy rainy days even when rain guards are fitted. If the tappers are motivated and properly remunerated even on heavy rainy days, tapping can be continued as done in estates in Kerala, India, where the rainfall is even more severe than here. So far there is not a single case of fungal attack on the tapping panel or any other harmful effect on to the rubber trees that has been reported from anywhere in Sri Lanka although there are some baseless rumours spread by loiters in some of the rubber growing areas. The RRI takes the full responsibility in this matter and is even prepared to challenge any one on this based on our experience with the rainguards in all rubber growing areas during the last 4 years. However, it should be emphasised that proper mixing of the sealant as recommended to the recipe given by the RRI and properly laying the rain guard nicely spread-out like a pleated skirt without any leaks at the edge of the fitting to the tree, tapping could be continued even on a heavy rainy day. RRI is always ready to provide free demonstrations to cover both these aspects to any interested estate or a group of smallholders in any rubber growing area.

All rubber plantations, mainly the privately managed estates must, therefore plan from today itself to fit rainguards in their plantations in the next February/April dry season which is the last period in which it is recommended to be fitted for optimum results. Although private management Companies were earlier reluctant to spend money on this technique because the ownership of the estate was not with them, under the new package they could do it without hesitation. If all Management Companies go for this exercise with determination with the support from RRI that will be the best way they can contribute to the year of productivity with the full co-operation of the RRI.

It should also be emphasised here that by fitting rainguards, RRI does not recommend daily tapping of the trees, because there is no clone produced anywhere in the world so far to withstand daily tapping.

In order to reduce the problem of shortage of tappers, RRI recommended a half spiral once in 3 days tapping (S_2/d_3) with light ethrel application. This will result in giving the same yield that is expected from the half spiral alternate day tapping system. Hence 3 tapping blocks could be assigned to a tapper thereby reducing the tappers requirement by nearly 33%. However, this new recommendation is meaningless unless rain guards are fitted to the trees tapped once in 3 days because if the crop is lost due to the rain in a particular day, crop equivalent to 1 1/2 days crop from the normal tapped block is lost under this $S_2, d/3$ tapping system.

Exploitation

There is no recommendation anywhere in the rubber producing countries in the world to open up trees at a girth of less than 50 cm. Experiments have been

conducted in many parts of Sri Lanka to study the effect of opening up at 45 cm girth. But the results have been very discouraging. Yields recorded have been lower than in the trees exploited at 50 cm. girth while their girthing have also been adversely affected. Hence, opening up of young plantations at a girth of 45 cm. is not recommended by the Rubber Research Institutes any where in the world, as it is a very short term policy which will ultimately effect the rubber yields as well as the availability of timber. Application of fertilizer for optimizing yields without drying the tapping panel of the tree is recommended strongly except during the last 5 years of tapping before uprooting. Rubber is the only perennial crop for which the research has been carried out and recommended to use Eppawela rock Phosphate for mature rubber plantations. Experiments are in progress to explore the possibility of using Eppawela Rock Phosphate in the fertilizer mixtures recommended for immature plants as well.

In order to help to achieve the above target, newly introduced RRIC clones viz. RRIC 100, 102 and 121 which are yielding nearly double the yield compared to the traditional PB 86 clone will pay a vital role. However, though RRIC 110 is a clone which has performed best in other countries specially Africa, it has shown susceptibility to wind damage and also a high susceptibility to leaf diseases such as *Corynespora* and *Gloeosporium*. We therefore decided that this clone should not be recommended at all for smallholders in Sri Lanka. However, by categorising them in Grade II recommendations, trial plots of this high yielding clone have been laid in some of the estates all over the country. Planters must take very special care in these trial plots and if they see that the plots are heavily affected by the above two diseases mainly due to the highly humid micro-climatic conditions that are prevailing in such sites, remedial measures must be taken to combat them with the assistance of the RRI. Nurseries providing plants to smallholders should not issue them to smallholders under any conditions due to the above reason. If this situation is not controlled at this stage, these affected RRIC 110 plants may produce a mutated fungi of *Corynespora* which has not yet been identified in Sri Lanka, even to affect the RRIC 100, 102 and 121 clones.

With regard to increasing the intake per tapper which is vital to reduce the cost of manufacture of rubber in estates, various incentives have been offered to tappers in estates. As a result, the intake per tapper which was around 3-4 Kg per day during SLSPC and JEDB days have now been increased in many places to an average figure of 8 Kg. There are many plots in many estates where the tappers are collecting over 20 Kg per day from the RRIC 100 series clones without resorting to any bad exploitation practices purely because of the incentives offered. At the prevailing price for RSS and crepe rubber offering a attractive incentive to tappers will not be a loss to the estate.

It is also announced with pleasure that Sri Lanka is one of the countries

where a good progress has been shown with regard to the ISO 9000 accreditation for rubber factories. As most of the rubber product factories are voluntarily going for this essential requirement to export end products to the European countries, USA and Japan, arrangements have already been made by the RRI to take all latex crepe factories as clusters of factories producing the same grade of latex crepe by the same method to be registered for ISO 9000. This is essential because this highest quality grade of natural rubber carefully made to be used specially in food and pharmaceutical rubber appliance industries in Europe, USA and in Japan, will be the most vulnerable grade to face threats from the new quality requirement system. Every effort will be taken to get the ISO 9000 registration for all of them during the course of this year, in view of the keen interest shown by the private Management companies to obtain this. Although it is extremely difficult to accredited the produce of over 250,000 smallholders spread all over the country, plans are under way to register them for the above quality requirement at least at the point of dealer or shipper where the product is collected, graded and packed.

It will, therefore, not be a difficult task for Sri Lanka to increase its annual rubber production at least by 25% in the year 1996 if all the rubber estates under private Management and also the smallholders follow the above recommendations with regard to planting, tapping and processing of rubber. A marked improvement in the manufacture of rubber products too is also expected in the forthcoming months. It is therefore correct to say that the rubber sector will be able to show the best result with regard to increasing the productivity in rubber estate in this national year of productivity.