



Development of bushy type Kothala Himbutu (*Salacia reticulata* White) plantation for sustainable leaf/ stem harvesting

Rathnayaka, R.M.S.M.B. and Subasinghe, S.

Department of Crop science, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, Sri Lanka.

✉ sangeeth.agri@gmail.com

Kothala Himbutu (*Salacia reticulata* White) is a well known medicinal plant which has long been used in traditional medicine for many diseases such as Watha, diabetes, hemorrhoids, rheumatism, gonorrhoea and skin diseases are some of them. This plant is near extinction from their natural habitats due to severe exploitation and unsustainable harvesting method to meet the heavy demand. So, it is important to develop Kothala Himbutu plantation which can get sustainable yield. The present experiment is carried out to develop bushy type Kothala Himbutu plantation for sustainable leaf/stem harvesting.

The experiment was carried out at the Medicinal Plant Garden at the Faculty of Agriculture, University of Ruhuna. One year old once pruned plants were selected for pruning trial. First pruning was done 30cm, 40cm and 50cm. 2nd and 3rd pruning were done at 90cm and 120 cm. Two years old plants were selected for fertilizer trial. First pruning of these plants was done at 90cm, and used three different fertilizer rates based on, T₂₀₀; the fertilizer recommendation for young tea plantation. Fertilizer rates as different treatments used were 100% of T₂₀₀, 75% of T₂₀₀ 50% of T₂₀₀. Dry weight of pruned leaves and stems, number of leaves and stems, stem height of the highest shoot were measured at one month interval.

Results showed that, significantly higher number of branches can be seen in the plants, that has been first pruned at 50cm height and it was continued even after second pruning at 90cm and significantly higher number of branches can be seen in the plant that has been applied T₂₀₀ fertilizer 100%. Therefore most suitable fertilizer mixture for two years old Kothala Himbutu Bushy type plantation is 100% of (175Kg/ha) T₂₀₀ (N: P₂O₅: K₂O – 100kg: 50Kg: 25Kg) to ensure more number of new branches, new shoots and new leaves.

Keywords: *Salacia reticulata*, diabetes, exploitation, leaves, pruning