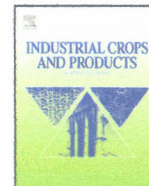




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Short communication

## Characterisation of agarwood type resin of *Gyrinops walla* Gaertn growing in selected populations in Sri Lanka



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### ABSTRACT

*Gyrinops walla* is the only agarwood producing tree growing in Sri Lanka which is believed to be endemic. Agarwood is valuable resinous heartwood of Thymalaeaceae family. Present study is aimed to identify the characteristics of naturally formed agarwood type resins in *G. walla* stems. Samples were isolated from trees growing three different location in the wet zone of Sri Lanka. Naturally formed resinous part of wood was solvent extracted and analysed by GCMS. Further, the current study has developed an effective GCMS method to analyse agarwood type resin from *G. walla*. Tree diameters and the heights varied in the trees samples, which had no effect on resin formation. Resin contents were not significantly different between three populations although the chemical variations were considerably high. Among the 19 constituents identified by GCMS in the agarwood resins, free fatty acids and isopropyl naphthalene, 2-phenylethyl chromone compounds found to be common for most of the *G. walla* trees tested. Commonly found sesquiterpene compounds from the *G. walla* resin were Jinkhol,  $\gamma$ -eudesmol, valeranol and valerinal. Similar compounds have been reported in resin from *Aquilaria* spp. which is the more established source of agarwood. A future study would experiment on artificial resin induction methods and establishing plantations of *G. walla* to sustain its supply.