

Utilization Of Medical Plants *Tetrastigma glabratum* (Blume) Planch from Mount Prau in the Blumah, Central Java

Authors : A. Lianah, B. Peter Sopade, C. Krisantini

Abstract : Walikadep/*Tetrastigma glabratum* (Blume) Planch is a traditional herb that has been used by people of Blumah village; it is believed to have a stimulant effect and ailments for many illnesses. Our survey demonstrated that the people of Blumah village has exploited walikadep from Protected Forest of Mount Prau. More than 10% of 448 households at Blumah village have used walikadep as traditional herb or jamu. Part of the walikadep plants used is the liquid extract of the stem. The population of walikadep is getting scarce and it is rarely found now. The objectives of this study are to examine the stimulant effect of walikadep, to measure growth and exploitation rate of walikadep, and to find ways to effectively propagate the plants, as well as identifying the impact on the environment through field experiments and explorative survey. Stimulant effect was tested using open-field and hole-board test. Data were collected through field observation and experiment, and data were analysed using lab test and Anova. Rate of exploitation and plant growth was measured using Regression analysis; comparison of plant growth in-situ and ex-situ used descriptive analysis. The environmental impact was measured by population structure vegetation analysis method by Shannon Weinner. The study revealed that the walikadep exudates did not have a stimulant effect. Exploitation of walikadep and the long time required to reach harvestable size resulted in the scarcity of the plant in the natural habitat. Plant growth was faster in-situ than ex-situ; and fast growth was obtained from middle part cuttings treated with vermicompost. Biodiversity index after exploitation was higher than before exploitation, possibly due to the toxic and allelopathic effect (phenolics) of the plant. Based on these findings, further research is needed to examine the toxic effects of the leave and stem extract of walikadep and their allelopathic effects. We recommend that people of Blumah village to stop using walikadep as the stimulant. The local people, village government in the regional and central levels, and perhutani should do an integrated efforts to conserve walikadep through Pengamanan Terpadu Konservasi Walikadep Lestari (PTKWL) program, so this population of this plant in the natural habitat can be maintained.

Keywords : utilization, medical plants, traditional, *Tetastigma glabratum*

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020