

THE INFLUENCE OF URBAN FORESTRY IN FORMING MICRO CLIMATE

Siti Fatimah *)
Chafid Fandeli **)

Abstract

City development is tended to be signed by the physical development in existing infrastructure. It results a change in natural environment and green open space of the city so that the environment quality become lower. Lack of green space raising temperature of the city which is a reflection of micro climate change.

This study held in 3 forms of urban forestry in Yogyakarta, those are spreading form in UGM Campus, inline form in Kotabaru and assembling form in Gembiraloka. Measuring held three times in two weeks. Research method used is *purpose sampling*, that is by determining a representative area. This research evaluated three treatment, those are location, time and the site of measuring. Experiment post used in this research is complete random post. The result data is processed by the varian analysis for knowing the influence of urban forestry in forming micro climate, meanwhile regression analysis is used for knowing the influence of tree factor in temperature and humidity. Fault tolerance is determined at 5 %.

The result of the research shows a obvious different micro climate (temperature, humidity, wind speed and radiation) among the three forms of the urban forestry. Assembling urban forestry is the most effective in lowering air temperature, air humidity, wind speed and sun radiation. In the second place is the spreading urban forestry, and the inline urban forestry is the third. Those differences are influenced by crown density, crown covering width and physical condition of surrounding environment. Tree factor which influencing temperature are tree height, crown height and crown width are the influencing. Tree factor which influencing air humidity is tree height and crown width.

Keywords : Urban Forestry, Micro Climate, Form, Tree, Crown.

*) Student in KSDH programme, student number : 03471/KT FKT UGM

***) Thesis guide lecturer, lecture staff in KSHD programme, FKT UGM.