

Growth dynamics and yield of *Andrographispaniculata* (Burm. F.) needs as influence by plant harvest age

ABSTRACT

Andrographispaniculata or commonly known as King of bitters is one of the high value herb that globally in demand because of its pharmacological potential as anticancer. Plant harvest age is a critical factor affecting the growth dynamics and yield on herbal plants. Early or late harvesting time subsequently produces a low herbage yield. Therefore, a study was conducted to determine the effects of plant harvest age on growth dynamics and yield of *A. paniculata*. The plant was planted at the University Agriculture Park, Universiti Putra Malaysia, using a randomized complete block design with three replications. The plants were harvested at 14, 16, 18, 20 and 22 weeks after sowing (WAS). Results showed that the maximum increment rate in plant height and number of leaves and branches were at 16 and 22 WAS, respectively. Plant height correlated with the number of leaves ($r = 0.97$) and branches ($r = 0.94$). Specific leaf area decreased by 41% as plant harvest age increased. Plant fresh linearly increased until 20 WAS and tended to plateau thereafter. Plant dry weight increase as plant harvest age increased. Thus, plant should be harvested at 20 WAS or flowering stage in order to obtain desirable growth and yield.

Keyword: Plant height; Number of leaves; Specific leaf area; Plant dry weight; Correlation