

## ABSTRACT

**Khoiriyah, Lailatul. 2014. The Effect of Extract Water Katu Leaf (*Sauropus androgynus* (L.) Merr) for The length of Diestrus Phase and Vaginal Epithelial Proliferation Mice (*Mus musculus* L.) Premenopausal Females.** Undergraduate Thesis, Department of Biology, Faculty of Science and Technology of the State Islamic University of Maulana Malik Ibrahim Malang. Biology Supervisor: Dr. Retno Susilowati, M.Si; Supervising Religion: Umaiatus Syarifah, M.A

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Premenopausal phase is the beginning of the climacteric phase. This phase is begun at the age of 40 years and characterized by irregular menstrual cycles, the prolong of menstrual bleeding, the amount of menstrual that is relatively large, and it is sometimes accompanied by painful menstruation (*dysmenorrhea*). The hormonal changes during premenopausal will cause complaints, one of which is irregular menstruation and vaginal atrophy. The complaints can be overcome by giving phytoestrogen. Katu leaf contains isoflavone that has the potential as a phytoestrogen. Therefore, this study aimed to determine the effect of water extract of leaf valve (*Sauropus androgynus* (L.) Merr) to the length of diestrus phase and proliferation of vaginal epithelium of mice (*Mus musculus* L.) premenopausal females.

This study was an experimental study using CRD with 5 replications. The animal that s used was female mice that the VCD injection (4-Vinyl cyclohexane dioxide) is for premenopausal conditions. The treatment group (K-), (K +), (P1) and (P2). The result of the research data covering long diestrus phase and proliferation (thickness and maturation of cells) vaginal epithelium. These data were analyzed by ANOVA ( $\alpha$  1%). If there is a significant differences between the treatments, then it will be tested by LSD 1%.

The results showed that there was the influence of the effect of water extract of leaf valve (*Sauropus androgynus* (L.) Merr) to the length of diestrus phase and proliferation of vaginal epithelium of mice (*Mus musculus* L.) premenopausal females. An optimal dose to reduce the length of diestrus phase and increases proliferation of vaginal epithelium premenopausal female mice is a dose of 30 mg / kgBB (group P2) with an average length of diestrus phase is 78.4 hours and an average of 10.90  $\mu$ m thick vaginal epithelium and 75 cell maturation index (high estrogen effect).

