

**ABSTRACT**

**DETERMINATION OF QUERCETIN CONTENT IN *Averrhoa bilimbi* SYRUP BY TLC-DENSITOMETRY**

EVI DAMAYANTI

Quercetin is a flavonoid compound contained in *Averrhoa bilimbi* leaves. *Averrhoa bilimbi* leaves are potentially developed into herbal preparation such as syrup. In this research, syrup was made from *Averrhoa bilimbi* leaves extract. Determination of quercetin in herbal syrup is important to assure the dose. TLC-densitometry was used to determine quercetin in herbal syrup therefore method validation is needed to obtain valid analytical method. Good separation was achieved mobile phase of toluen : etyl acetat : formic acid (7:3:1). Measurement was conducted at wavelength 265 nm. The calibration plots showed a good linear relationship with  $r = 0,9974$  and  $V_{xo} = 4,29\%$ . The LOD and LOQ for quercetin 0,0064  $\mu\text{g}$  and 0,0215  $\mu\text{g}$  respectively. The accuracy for quercetin was 91,63% while precision was 0,24%. Quercetin content in leaves extract and in syrup were 0,5840% (b/b)  $\pm$  6,91% and 6,353 mg/10 ml respectively.

Keyword: Quercetin, *Averrhoa bilimbi*, TLC-Densitometry, Syrup.