

Potensi Diuretik Rambut Jagung (*Zea mays L.*) Diuretic Potency of Corn Silk (*Zea mays L.*)

Ruqiah Ganda Putri Panjaitan¹, Rahmat Saputra², Ekowati Handharyani³

¹Program Studi Biologi, FKIP-Universitas Tanjungpura, Pontianak

²Program Studi Kimia, FKIP-Universitas Tanjungpura, Pontianak

³Bagian Patologi, Fakultas Kedokteran Hewan IPB

e-mail: ruqiah_gpp@yahoo.com

Abstract

Zea mays L. (Gramineae) is being used as one of the medicinal plant. However, related studies on the potentials of this corn silk have not widely been conducted. This research has been conducted to study the acute toxicity and the diuretic potential of corn silk. In the studies on acute toxicity in male mice (24-28 g) by using Weil method, there was no mortality could be observed. The diuretic potential of corn silk has been tested by using the Cummings method, and using Sprague Dewley male rats (220-270 g). The administration of 1,4; 2,8 and 5,6 ml/100 g body weight (BW) decoction of corn silk and treated orally. In this study, distilled water (2 ml/100 g BW) was used as placebo and chlortalidone (0,315 mg/100 g BW). Evaluation the volume of urine were performed after 24 hours after treatment. The results indicated that the volume of urine in rats treated with decoction of corn silk 5,6 ml/100 g BW were increased (7,80 ml) compare to placebo (6,37 ml) and chlortalidone (5,90 ml). However, slight change in urine Na⁺ - K⁺ concentration has been observed in rats receiving decoction of corn silk. The value of Na⁺ in urine showed an increase point (0,16 mEq/ml) while the K⁺ was significantly decreased (0,06 mEq/ml). The pH level in urine revealed no significantly decrease. From this research it could be concluded that decoction of corn silk has diuretic potential. The mechanism of action, however, remains be proven.

Key words: *Zea mays*, corn silk, diuretic activity, acute toxicity