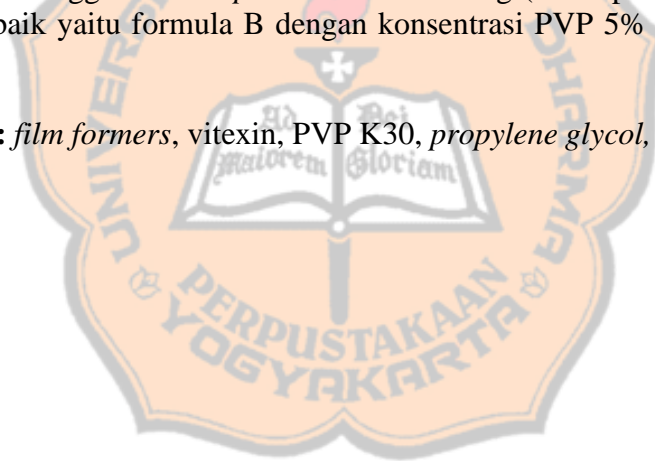


ABSTRAK

Luka diabetes lebih sulit disembuhkan karena adanya kadar gula yang tinggi dalam darah. *Anredera cordifolia* (Ten.) Steenis atau sering disebut tanaman binahong biasanya digunakan sebagai penyembuh luka terkhusus pada penderita diabetes. Salah satu kandungan yang terdapat pada daun binahong yaitu vitexin yang diketahui mempunyai efek farmakologis salah satunya yaitu sebagai anti-inflamasi. sediaan dibuat dalam bentuk *spray film formers* dengan menggunakan ekstrak daun binahong, pelarut aquadest dan etanol serta polyvinyl pirolidone K30 (PVP K30) sebagai polimer dan propylene glycol sebagai plasticizer. Tujuan dari penelitian ini yaitu mengetahui konsentrasi PVP dan *propylene glycol* yang optimal serta pengaruhnya terhadap sifat fisik sediaan *diabetic wound healing film formers* ekstrak daun binahong dengan menggunakan metode desain faktorial. Hasil penelitian sifat fisik sediaan menunjukkan nilai volume semprotan 0.1187-0.1221g, waktu kering 1513-299,6 detik, pH 5,1-5,2, viskositas 1,54-7,13 cPs, dan daya sebar 5,29-5,45cm. Hasil analisis yang didapatkan menggunakan design expert yaitu semua formula yang diuji memenuhi kriteria sifat fisik sediaan sehingga *contour plot* berwarna kuning (area optimum) namun formula yang paling baik yaitu formula B dengan konsentrasi PVP 5% dan *propylene glycol* 1%.

Kata Kunci : *film formers*, vitexin, PVP K30, *propylene glycol*, *contour plot*



ABSTRACT

Diabetic wounds are more difficult to heal because of high levels of sugar in the blood. *Anredera cordifolia* (Ten.) Steenis or often called the binahong plant is usually used as a wound healer, especially in diabetics. One of the ingredients contained in binahong leaves is vitexin which is known to have pharmacological effects, one of which is as an anti-inflammatory. The preparation was made in the form of a spray film using binahong leaf extract, aquadest and ethanol as solvents and polyvinyl pyrrolidone K30 (PVP K30) as a polymer and propylene glycol as a plasticizer. The purpose of this study was to determine the optimal concentration of PVP and propylene glycol and their effect on the physical properties of the diabetic wound healing film preparation of binahong leaf extract using the factorial design method. The results of the research on the physical properties of the preparation showed that the spray volume value was 0.1187-0.1221g, dry time 1513-299.6 seconds, pH 5.1-5.2, viscosity 1.54-7.13 cPs, and spreadability 5, 29-5.45cm. The results of the analysis obtained using design experts are that all the formulas tested meet the criteria for the physical properties of the preparation so that the contour plot is yellow (optimum area) but the best formula is formula B with 5% PVP concentration and 1% propylene glycol.

Keywords: *film formers*, vitexin, PVP K30, *propylene glycol*, *contour plot*

