

PENGARUH JENIS MEDIUM SUMBER Zn DAN LAMA *BLANCHING*  
TERHADAP STABILITAS KLOOROFIL DAN WARNA BUBUK SIMPLISIA  
SAMBILOTO (*Andrographis paniculata*)

**INTISARI**

Daun sambiloto mengandung fenolik dan flavonoid, serta klorofil yang berperan sebagai antioksidan. Tujuan penelitian menghasilkan bubuk simplisia sambiloto dengan kadar klorofil dan warna hijau tinggi dengan medium sumber  $Zn^{2+}$ , mengevaluasi pengaruh sumber  $Zn^{2+}$  dan lama *blanching* daun sambiloto segar terhadap kadar klorofil dan warna bubuk simplisia sambiloto, menentukan kadar klorofil dan warna yang tinggi. Bahan utama penelitian daun sambiloto segar. Proses pembuatan bubuk simplisia sambiloto adalah daun sambiloto segar disortasi, ditimbang, di*blanching* dalam larutan  $Zn^{2+}$  500 ppm, dikeringkan, dan dihaluskan. Bubuk simplisia sambiloto dianalisis kadar air, klorofil a,b,dan total, karotenoid total, abu serta warna. Rancangan percobaan menggunakan RAL dua faktorial yaitu jenis medium  $ZnCl_2$  atau Zn asetat dan lama *blanching* 5,10, dan 15 menit. Data dianalisis menggunakan Anava, apabila signifikan dilanjutkan uji DMRT dengan bantuan software SPSS. Hasil penelitian kadar klorofil dan warna hijau tinggi dihasilkan  $ZnCl_2$ , interaksi sumber  $Zn^{2+}$  dan lama *blanching* berpengaruh nyata terhadap kadar air, klorofil, karotenoid total, abu, dan warna bubuk simplisia sambiloto, semakin lama *blanching* kadar air, kadar abu, kadar karotenoid, klorofil a, b dan total serta intensitas hijau semakin besar, namun pada medium  $ZnCl_2$  dengan lama *blanching* 15 menit menurun. Bubuk simplisia sambiloto mempunyai kadar klorofil dan warna hijau tinggi dihasilkan  $ZnCl_2$  dengan lama *blanching* 10 menit, bubuk simplisia sambiloto mempunyai kadar air 9,65%bb, kadar klorofil total 447,29 mg/100g bk, kadar karotenoid 3,87 mg/100g bk, dan kadar abu 12,50 mg/100g bk serta warna hijau (-a) -4,22.

Kata kunci: kompleks Zn-klorofil,  $ZnCl_2$ , Zn asetat, klorofil, warna

EFFECTS OF ZN SOURCES MEDIUM AND BLANCHING TIME ON  
THE STABILITY OF CHLOROPHYLL AND COLOR OF THE SIMPLICIA  
SAMBILOTO (ANDROGRAPHIS PANICULATA) POWDER

**ABSTRACT**

Sambiloto leaf contains phenolics, flavonoids, and a chlorophyll that has a functions as an antioxidant. This study aims to produce green sambiloto simplicia powder with high chlorophyll quantity and green color with  $Zn^{2+}$  source media type, evaluate the effect of  $Zn^{2+}$  source and duration of blanching of fresh sambiloto leaf on chlorophyll quantity and color of sambiloto simplicia powder, and to determine the high chlorophyll quantity and color. The main ingredient of this research is fresh Sambiloto leaf. The process of making sambiloto simplicia powder is from the sorted of a fresh sambiloto leaves, weighed, boiled in a 500 ppm  $Zn^{2+}$  solution, dried, and mashed. The simplicia sambiloto powder was analyzed for moisture content, chlorophyll a, b, and total, the total of carotenoids, ash and color. The experimental design used two factorial RAL, with the type of medium  $ZnCl_2$  or Zn acetate and blanching time of 5, 10, and 15 minutes. The data were analyzed using Anova, if it was significant then the DMRT test was continued using SPSS software. The results showed that high levels of chlorophyll and green color resulted in  $ZnCl_2$ , interaction of  $Zn^{2+}$  source and blanching time significantly affected the water content, chlorophyll, total carotenoids, ash, and color of the simplicia sambiloto powder, the duration of the blanching time, the levels of carotenoids, chlorophyll a, b and total. The green color intensity was increased, but  $ZnCl_2$  media with blanching time of 15 minutes decreased. Water and ash quantity increased at blanching time of 5, 10, and 15 minutes. Simplicia sambiloto powder has a high chlorophyll quantity and high green color produces  $ZnCl_2$  with a blanching time of 10 minutes, simplicia sambiloto powder has a moisture content of 9.65% wt, total chlorophyll content 447.29 mg/100g bk, carotenoid content 3.87 mg / 100g dk, and the ash content is 12.50 mg/100g bk and the color is green (-a) -4.22.

Key words: complex Zn-chlorophyll,  $ZnCl_2$ , acetate Zn, chlorophyll, color