

ABSTRAK: Daun kelor mengandung antioksidan yang dapat menghambat radikal bebas dan memiliki manfaat farmakologis. Tujuan dari penelitian ini adalah untuk mengetahui formulasi asam sitrat dan asam malat terhadap kualitas serbuk effervescent pada daun kelor. Serbuk effervescent pada daun kelor dibuat menjadi 5 formula dengan perbandingan asam sitrat dan asam malat, 25% : 5%, 20% : 10%, 15% : 15%, 10% : 20% dan 5% : 25%. Kualitas serbuk effervescent yang diuji meliputi kadar air, pH, tinggi buih, waktu larut dan uji organoleptik. Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) faktor tunggal dengan lima taraf dan tiga ulangan. Teknik analisis data yang digunakan adalah Analisis Varian (ANOVA), jika terdapat perbedaan nyata antar perlakuan dilanjutkan dengan uji Duncan. Formulasi serbuk effervescent daun kelor yang paling baik menurut uji organoleptik hedonik adalah formula dengan formulasi asam sitrat dan asam malat 5% : 25%. Formula terbaik memiliki karakteristik sebagai berikut: nilai waktu rata-rata 1,28 menit, nilai tinggi buih granul 2,58 cm, nilai pH rata-rata 5,17, kadar air rata-rata 0,64%, nilai aktivitas antioksidan (IC₅₀) yaitu 31,61 ppm, dan berwarna hijau muda. Berasa agak asam manis serta beraroma agak khas kelor.

Kata Kunci: daun kelor, serbuk effervescent, antioksidan, asam sitrat, asam malat

ABSTRACT: *Moringa leaves contains antioxidants, which can inhibit free radicals and have pharmacological benefits. The purpose of this study was to determine the formulation of citric acid and malic acid on the quality of powder effervescent on moringa leaves. Powder effervescent on moringa leaves are made into 5 formulas with a comparison of citric acid and malic acid, 25%: 5%, 20%: 10%, 15%: 15%, 10%: 20% and 5%: 25%. The quality of the powder effervescent tested included water content, pH, high foam, soluble time and organoleptic test. The research design used was a single-factor completely randomized design (RAL) with five levels and three replications. Data analysis technique used is Variant Analysis (ANOVA), if there are significant differences between treatments followed by Duncan's test. The best formulation of powder effervescent from moringa leaves according to hedonic organoleptic test was formula with citric acid and malic acid formulation 5%: 25%. The best formula has the following characteristics: average time value of 1,28 minutes, granule high foam value of 2,58 cm, average pH value of 5,17, average water content of 0,64%, value of antioxidant activity, namely 31,61 ppm, and has a light green color, a slightly sweet and sour taste and a slightly distinctive flavor of moringa.*

Keywords: *moringa leaves, powder effervescent, antioxidants, citric acid, malic acid.*