

INTISARI

HASANI, A.M.E, 2016, FORMULASI NUTRASETIKAL SEDIAAN *GUMMY CANDIES* EKSTRAK ETANOL DAUN KELOR (*Moringa oleifera* Lamk.) DENGAN VARIASI KADAR MANITOL-GELATIN, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Daun kelor (*Moringa oleifera* Lamk.) merupakan tanaman yang berkhasiat sebagai imunomodulator karena mengandung senyawa flavonoid seperti quercetin dan catechin, polifenol seperti tanin dan terpenoid seperti vitamin A dan β -karoten. Penelitian ini bertujuan untuk menghasilkan sediaan *gummy candies* ekstrak daun kelor dengan variasi kadar manitol sebagai bahan pemanis dan gelatin sebagai bahan pembentuk gel atau kekenyalan yang memenuhi syarat mutu fisik dan disukai anak-anak.

Ekstrak daun kelor yang diperoleh dari maserasi menggunakan etanol 70% dibuat 5 formula *gummy candies* dengan variasi kadar manitol-gelatin berturut-turut sebesar 50:50%, 40:60%, 25:75%, 60:40%, 75:25%. Sediaan dibuat dengan bobot rata-rata 3,3 gram dengan dosis ekstrak 200 mg. Uji fisik sediaan yang dilakukan meliputi uji organoleptis, uji pH, uji keseragaman bobot, uji kadar lembab, uji elastisitas dan uji stabilitas sediaan. Uji mutu kandungan fitokimia sediaan menggunakan uji tabung dan uji tingkat kesukaan terhadap sediaan melibatkan 20 responden anak.

Hasil analisa penelitian menunjukkan bahwa ekstrak daun kelor dapat dibuat sediaan *gummy candies* dengan variasi kadar manitol-gelatin dan didapatkan formula terbaik yaitu formula 3 yang disukai anak-anak. Variasi kadar manitol-gelatin mampu mempengaruhi sifat fisik sediaan yaitu semakin tinggi kadar manitol maka semakin manis dan semakin rendah elastisitas sediaan sedangkan semakin tinggi kadar gelatin maka semakin kenyal dan semakin tinggi elastisitas sediaan.

Kata kunci : Ekstrak daun kelor, *gummy candies*, gelatin, manitol, uji mutu fisik

ABSTRACT

HASANI, A.M.E, 2016, NUTRACEUTICAL FORMULATION OF GUMMY CANDIES DOSAGE FORM MORINGA LEAVES (*Moringa oleifera* Lamk.) ETHANOL EXTRACT WITH VARIATION CONCENTRATION OF MANNITOL-GELATIN, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Moringa leaves (*Moringa oleifera* Lamk.) is a plant that is useful as immunomodulation that contain compounds such as flavonoids like quercetin and catechin, polyphenols like tannin, and terpenoids like vitamin A and β -caroten. This study was aimed to produce a gummy candies dosage form of moringa leaves extract with variations concentration of mannitol as a sweetener agent and gelatin as a gelling agent or chewy agent that are qualified to physical quality and suitable to kids.

Moringa leaves extract that was obtained from maceration using 70% ethanol was made into 5 formulas of gummy candies with variations concentration of mannitol-gelatin in a row of 50: 50%, 40: 60%, 25: 75%, 60: 40%, 75: 25%. Preparations were made with an average weight of 3.3 grams at a dose of 200 mg extract. Physical test of dosage form was conducted on the organoleptic test, pH test, weight uniformity test, moisture content test, elasticity test and stability test of dosage forms. Phytochemical content quality test of dosage form using test tubes and preference level of the dosage form involved from 20 kid respondents.

Results of the analysis showed that the extract of moringa leaves could be made gummy candies with variations concentration of mannitol-gelatin and obtained the best formula is formula 3 that was preferred by kids. Variations concentration of mannitol-gelatin can influence the physical properties which of a higher level of mannitol preparation impacted more sweet and lower the elasticity of dosage forms while the higher levels of gelatin impacted more rubbery and higher elasticity of dosage form.

Keywords: Moringa leaf extract, gummy candies, gelatin, mannitol, physical quality test