ABSTRAK

ANALISIS NILAI GIZI, DAYA TERIMA DAN PENGHAMBATAN ALFA GLUKOSIDASE MINUMAN SERBUK INSTAN EKSTRAK DAUN KERSEN (Muntingia calabura L.) DENGAN VARIASI KONSENTRASI MALTODEKSTRIN

Xiv, VI BAB 106 halaman, 17 tabel

Latar Belakang: Pemanfaatan daun tumbuhan sebagai komponen utama minuman serbuk instan masih jarang ditemukan. Kersen adalah sejenis tanaman perdu yang bisa setinggi 12 meter, yang biasanya dipakai untuk berteduh ketika hujan di pinggir jalan, tanpa kita sadari ternyata daun kersen memiliki kandungan senyawa metabolit sekunder yang bertindak sebagai antioksidan untuk menangkal radikal bebas.

Tujuan : Mengetahui nilai gizi dan daya terima minuman serbuk instan ekstrak daun kersen pada berbagai formulasi.

Metode Penelitian: Penelitian ini merupakan penelitian eksperimen dengan variasi kadar maltodekstrin (10, 15 dan 20%). Instrumen uji organoleptik menggunakan metode VAS (Visual Analog Scale). Analisis data menggunakan uji *one way anova*

Hasil Penelitian: Hasil yang didapatkan adalah minuman serbuk instan ekstrak daun kersen dari berbagai formula dengan kadar air berkisar antara 1.37-1.49% , kadar abu 1.18-0.5% yang memenuhi SNI minuman serbuk, kadar serat kasar berkisar antara 4.66-7.38%, nilai IC_{50} antioksidan berkisar antara 16.31-24.46 ppm, dan hasil skrining fitokimia dari semua formula menunjukkan adanya senyawa metabolit sekunder yaitu flavonoid, tanin dan saponin dan hasil negatif pada alkaloid. Perlakuan yang paling optimal didapatkan pada variasi kadar maltodekstrin 10% ditinjau dari kadar air, IC_{50} antioksidan dan IC_{50} alfa glukosidase yang baik serta disukai panelis secara organoleptik.

Kesimpulan: Konsentrasi maltodekstrin mempengaruhi organoleptik hedonik (warna, aroma dan keseluruhan produk), mutu kadar air, abu, serat , antioksidan, inhibitor alfa glukosidase dan tidak mempengaruhi organoleptik hedonik (rasa dan tekstur) serta skrining fitokimia minuman serbuk ekstrak daun kersen.

Daftar Bacaan: 1989-2016

Kata kunci: Daun kersen, minuman serbuk, aktivitas antioksidan penghambat alfa glukosidase, maltodekstrin, skrining fitokimia

ABSTRACT

ANALYSIS OF THE NUTRITIONAL VALUE, POWER AND ALPHA GLUCOSIDASE INHIBITION ACCEPT DRINKS INSTANT CHERRY LEAF EXTRACT POWDER (*Muntingia calabura* L.) WITH THE VARIATION OF CONCENTRATION OF MALTODEKSTRIN

XIV, VI CHAPTER 106 pages, 17 tables

Background: Utilization of plant leaves as the main component of instant powder drink is still rarely found. Cherry is a kind of shrub that can grow up to 12 meters high, which is usually used to take shelter on the roadside when it is raining, unknowingly, cherry leaves contain secondary metabolite compounds that serve as antioxidants to counter free radicals.

Objective: To find out the nutritional value and acceptance capability of cherry leaves extract instant powder drink on various formulations.

Method: This was an experimental study with variation of maltodextrin value (10, 15 and 20%). The organoleptic test instrument uses the VAS (Visual Analog Scale) method. Data analysis uses one way anova test.

Result: The results obtained are instant powdered cherry leaves extract from various formulas with water content ranging from 1.37-1.49%, ash content of 1.18-0.5% that meet SNI of beverage powder, crude fiber content ranged from 4.66-7.38%, Antioxidant IC 50 value ranged from 16.31-24.46 ppm, screening result of the whole formulas showed the presence of secondary metabolite compounds namely flavonoid, tannin and saponin and negative result on alkaloid. The most optimal treatment was found in the variation of 10% maltodextrin reviewing from water content, antioxidant IC 50 and good alpha glucosidase IC 50 and panelist favored organoleptically.

Conclusion: The concentration of maltodextrin affects the hedonic organoleptic (color, aroma and overall product), the quality of water content, ash, fiber, antioxidant, alpha glucosidase inhibitor and does not affect the hedonic organoleptic (taste and texture) and phytochemical screening of cherry leaves extract powder.

Keywords: Cherry leaves, powder drink, antioxidant activity blocking alpha glucosidase, maltodextrin, phytochemical screening

Reading List: 1989-2016