INTISARI

Temulawak merupakan tanaman yang banyak dipakai sebagai bahan baku obat tradisional. Berdasarkan penelitian terdahulu temulawak diindikasikan mempunyai efek menghambat pembentukan kolesterol namun sekaligus menambah nafsu makan. Untuk membuat temulawak sebagai sediaan antihiperlipidemia, maka keadaan kontraindikasi tersebut harus dihindari. Karena efek menambah nafsu makan ini berkaitan dengan kandungan minyak atsirinya, maka diusahakan mengeliminir minyak atsiri dengan perolehan kurkuminoid tetap optimal.

Penelitian ini bertujuan mengetahui kadar kurkumin dari tiga daerah sentra produksi temulawak, komposisi etanol-air yang optimal dalam menyari kurkumin berdasarkan *simplex lattice design*, interaksi jenis cairan penyari dan lama perendaman berdasarkan *factorial design*, prosentase kurkumin dari ekstrak etanolik terpurifikasi (bebas minyak atsiri) dan tanpa purifikasi serta prosentase sisa minyak atsiri dari ekstrak etanolik temulawak terpurifikasi.

Penerapan optimasi dilakukan melalui pengukuran kadar kurkumin dari sentra produksi kecamatan Bagelen, Imogiri, dan Samigaluh, perbedaan kadar kurkumin dari ekstrak etanolik terpurifikasi dan tanpa purifikasi serta prosentase minyak atsiri yang masih tersisa dalam ekstrak terpurifikasi. Pengukuran kadar kurkumin dilakukan dengan metode KLT-densitometri dengan fase diam silika gel F_{254} dan fase gerak campuran kloroform-etanol-air (25:0,96:0,04 % v/v), sedangkan pengukuran kadar minyak atsiri dilakukan dengan cara gas kromatografi.

Dari hasil penelitian ini diketahui rentang kadar kurkumin dari tiga daerah sampel adalah terendah dari daerah Samigaluh (Kabupaten Kulonprogo) dan Bagelen (Kabupaten Purworejo) yaitu 0,37% dan tertinggi dari daerah Imogiri (Kabupaten Bantul) yaitu 0,63%. Berdasarkan *simplex lattice design* diketahui penyari yang terbesar menyari kurkumin adalah etanol dengan rentang kadar 59% - 63%. Interaksi antara lama perendaman dan jenis cairan penyari berdasarkan *faktorial design* berjalan antagonis. Prosentase kurkumin ekstrak etanolik terpurifikasi sebesar 1,37% dan tanpa purifikasi sebesar 1,55%. Prosentase sisa minyak atsiri dari ekstrak etanolik terpurifikasi sebesar 0,0053%.

ABSTRACT

Temulawak (*Curcuma xanthorrhiza* Roxb) is a tropical plant used frequently as starting material for traditional medicines. According to previous studies, temulawak indicated as inhibitor of synthesis cholesterol and appetite stimulant. To utilize temulawak as anti hypercholesterolemia, this contra indication must be eliminated. Because of the appetite stimulant have close related to volatile oil content, the elimination of volatile oil could be progammed with optimal curcumin content.

This study propose to observe range of curcumin content from three central production of temulawak; optimal composition of ethanol-water as solvent of extraction based on simplex lattice design; interaction between solvent variation and time of contact based on factorial design; percentage of curcumin in purified (volatile oil free) and unpurified ethanolic extract and the percentage of volatile oil residue in ethanolic extract purified of temulawak.

Measurement of curcumin content was done by TLC-densitometry method with silica gel F_{254} as stationary phase and mixture of chloroform-ethanol-water (25:0.96:0.04 % v/v) as a mobile phase. Measurement of volatile oil residue was done by gas chromatogaphy technique.

The result showed that the range of curcumin content in three different samples were 0.37-0.63%; the lowest was collected from Samigaluh (Kabupaten Kuloprogo) and Bagelen (Kabupaten Purworejo) were 0.38% and the highest was from Imogiri (Kabupaten Bantul) was 0.63%. Based on simplex lattice design the solvent which could have optimal extraction of curcumin was ethanol with concentration range 59% - 63%. Interaction between solvent variation and time of contact based on factorial design was antagonis. Percentage of curcumin in purified ethanolic extract were 1.37% and unpurified ethanolic extract were 1.55%. Percentage of volatile oil residue in purified ethanolic extract were 0.0053%.