

PENURUNAN KADAR FORMALIN PADA TAHU DENGAN LARUTAN KUNYIT

Elsa Monalisa Kosmas¹, Ana Hidayati Mukaromah², Fandhi Adi Wardoyo²

1. Program Studi DIV Analis Kesehatan Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang.
2. Laboratorium Kimia Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang.

ABSTRAK

Tahu merupakan bahan makanan yang banyak dikonsumsi oleh masyarakat, karena rasa dan kandungan gizinya tinggi, dan tahu dibuat dari kedelai yang merupakan sumber makanan dengan kandungan protein tinggi. Tahu hanya dapat bertahan selama kurang lebih tiga hari tanpa menggunakan bahan pengawet. Tahu mudah rusak sehingga membuat para pedagang menambahkan formalin agar lebih tahan lama. Formalin adalah bahan tambahan yang di larang di gunakan dalam pangan namun biasanya disalahgunakan sebagai zat untuk mengawetkan makanan, sehingga makanan akan lebih awet. Tujuan penelitian ini untuk mengetahui penurunan kadar formalin pada tahu dengan menambahkan larutan kunyit (*Curcuma domestica*) dengan variasi konsentrasi dan lama waktu perendaman. Objek penelitian adalah tahu yang direndam formalin 1% selama 60 menit, kemudian dilakukan penurunan kadar formalin pada tahu dengan variasi konsentrasi larutan kunyit 6% b/v, 7% b/v, 8% b/v, 8% b/v dan variasi waktu perendaman 20 menit, 40 menit, dan 60 menit. Kadar formalin ditetapkan dengan metode spektrofotometri. Hasil penelitian didapatkan panjang gelombang optimum 570 nm dan waktu kestabilan optimum pada 15 menit. Kadar formalin awal pada tahu yang direndam formalin 1% selama 60 menit adalah 915,91 mg/kg. Penurunan kadar formalin tertinggi pada konsentrasi 8% b/v dengan lama perendaman 60 menit dapat menurunkan kadar formalin sebanyak 94,75%.

Kata Kunci : Tahu, Formalin, Larutan Kunyit.

DECREASING THE FORMALIN LEVELS IN TOFU WITH TUMERIC EXTRACT

Elsa Monalisa Kosmas¹, Ana Hidayati Mukaromah², Fandhi Adi Wardoyo³

1. D-IV Study Program Medical Technology Laboratory Faculty of Nursing and Health Muhammadiyah University Semarang.
2. Chemical laboratory of the Faculty of Nursing and health University Muhammadiyah Semarang.
3. Faculty of mathematics and Natural Sciences University of Muhammadiyah Semarang.

ABSTRACT

Tofu is a food that is widely consumed by the public, because the taste and nutritional content is high, and tofu is made from soybeans is a food source with high protein content. Tofu can only survive for more than three days without the use of preservatives. Which is traders add additional ingredients that are prohibited to be more durable. Formalin is an additional material that is prohibited from being used in food but is usually misused as a substance to preserve food, so that food will last longer. The purpose of this research is to know the levels decrease formalin at tofu by adding a *Tumeric (curcuma domestica)* with the variation of concentration and soaking time. The object of the research was tofu which was soaked in 1% formalin for 60 minutes, then the level of formalin was reduced to tofu by varying the concentration of *Tumeric* extract (6% b/v, 7% b/v, and 8% b/v) and soaking time variation (20 minutes, 40 minutes, and 60 minute). Research on the reduction of formalin levels was determined by the method spectrophotometry. The results of this research were optimum wavelength for the determination of the initial and last formalin at 570nm and optimum stability time at 15 minutes. Initial formalin levels in tofu which had been soaked in 1% formalin were 915,91 mg/kg,, the highest concentration of tumeric extract was 8% and 90 minutes soaking time could reduce the formalin levels by 94,75%.

Keywords : Tofu , Formalin , Tumeric extract