INTISARI

Pada proses pembuatan batik, pewarna alami memiliki beberapa kelebihan dibandingkan dengan pewarna buatan, diantaranya adalah harga jual yang lebih tinggi, lebih ramah lingkungan, dan tidak menimbulkan alergi terhadap pengguna serta dapat menembus pasar mancanegara. Namun, salah satu kelemahannya adalah tidak praktis. Hingga saat ini belum ada pewarna alami dalam bentuk serbuk.

Pada penelitian ini, bahan baku berupa kayu tegeran, jambal dan tingi dihaluskan terlebih dahulu menggunakan *powder grinder* hingga menjadi serbuk sebelum diekstrak. Parameter yang diteliti adalah jumlah pencelupan, durasi ekstraksi serta penambahan basa masing-masing tiga level sesuai penelitian terdahulu. Metode yang digunakan adalah RSM. Hasil kain batik diukur menggunakan *orameter* untuk mendapatkan warna kain.

Hasil penelitian menunjukan *Darkwood* merupakan warna yang disukai konsumen dengan kombinasi faktor lama ekstraksi (X_1) 33 menit, jumlah penambahan basa (X_2) 26gram/liter dan jumlah pencelupan (X_3). Tidak ada perbedaan signifikan antara replikasi sehingga dapat dikatakan bahwa pada penelitian ini warna yang dihasilkan merata. Dalam uji *independent t-test*, terdapat perbedaan signifikan antara L, a dan b dari zat pewarna alami dalam bentuk bubuk dan cair. Warna yang dihasilkan zat pewarna alami dalam bentuk bubuk lebih terang sedangkan warna yang dihasilkan zat pewarna alami dalam bentuk cair lebih gelap. Hasil uji ketahanan luntur warna pada zat pewarna alami dalam bentuk bubuk memiliki nilai lebih baik secara keseluruhan daripada zat pewarna alami dalam bentuk cair.

Kata kunci: Batik pewarna lain, uji kelunturan warna, RSM, kayu tegeran, kayu jambal, kayu tingi.

ABSTRACT

In the process of making batik, natural dyes have several advantages compared to artificial dyes, including a higher selling price, more environmentally friendly, and does not cause allergies to users and can penetrate foreign markets. However, one of its drawbacks is that it is impractical. Until now there is no natural dye in powder form. The presence of natural dyes in powder form is expected to help SMEs because storage is more practical.

In this study, the raw materials in the form of tegeran, jambal and tingi wood with a composition of 10 grams, 30 grams and 60 grams per liter were ground first using a powder grinder for 15 minutes to become powder before being extracted. Then the wood in the form of powder is extracted to become a dye with the extraction time according to the value of each combination. The next process is dyeing by dipping the fabric in the amount of dye according to the value of each combination. The parameters studied were the number of immersion, the duration of the extraction and the addition of base each three levels according to previous studies. The method used is RSM. The results of batik cloth were measured usinga chromameter to get the color of the cloth.

The results showed that Darkwood is the color preferred by consumers with a combination of the extraction time (X1) 33 minutes, the amount of base addition (X2) 26gram/liter and the amount of immersion (X3). There is no significant difference between replication so it can be said that in this study The colors produced using natural dyes are evenly distributed. In the independent t-test, there were significant differences between L, a and b of natural dyes in powder and liquid form. The color produced by natural dyes in powder form is lighter, while the color produced by natural dyes in liquid form is darker. The results of the color fastness test on natural dyes in powder form have a better overall value than natural dyes inliquid form.

Keywords: *Natural dyed batik, color fastness test, RSM, tegeran wood, jambal wood, tingi wood.*