

Pornsuda Mouchai 2012: The use of Tannin as Mordant in Dyeing Silk Fabric with Natural Dyes from Leaves of Andaman Satinwood (*Murraya paniculata* (L.) Jack) and Tropical Almond (*Terminalia catappa* Linn.). Master of Science (Home Economics), Major Field: Home Economics, Department of Home Economics. Thesis Advisor: Mrs. Sarunya Kasembunyakorn, Ph.D. 117 pages.

This research project focused upon silk fabric dyeing with dyes from Andaman Satinwood leaves and Tropical Almond Leaves together with four types of mordant: tannin, copper sulphate, potassium dichromate and potassium aluminium sulphate at the concentration level of 5 percent. Two methods of applying mordant were used: after mordant method and pre-tannin with after mordant method. Silk was dyed at the ratio of silk fabric and mordant solution at 1: 30 (w/v) for 40 minutes at 90°C by LA-650 INFRA RED DYER machine.

The study on color values revealed that types of mordant had an effect on the color values at the significant level of .05. Tannin made the fabric have bright color values. The use of tannin as after mordant provided the brightest color values.

The study of colorfastness to laundering was estimated from total color difference (dE*) values. It was found that mordant types had an effect on the values of dE* at the significant level of .05. Tannin had low total color difference (dE*) value. The result of Duncan's New Multiple Range Test of dE* revealed that tannin, copper sulphate and potassium dichromate were in the same group of dE* value. The pre-tannin with after mordant method had lower total color difference (dE*) value than the after mordant method and the pre-tannin as a mordant method provided the value of colorfastness to laundering at the level of 4 (very good). Color staining value of the fabric with tannin as mordant was at the level of 5. That meant tannin prevented color staining.

Student's signature

Thesis Advisor's signature