

The development of the natural dyes dyeing of cotton yarns : case study the dyeing with dyes from coconut bark and pterocarpus bark of the community in Tumbon Nabokham , Kamphaengphet Province

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The purposes of this research were to study the context of natural dyeing in community, the appropriate conditions for dyeing with natural dyes from coconut and pterocarpus, family dyeing process and transmit the dyeing technology to community. The methods of study were asked and interview the community leader, SWOT analysis, acidity and chemical composition of dyes, dyeing the cotton yarns with various methods, study the dye adsorption, color value and tone in CIELAB system, evaluate the satisfaction on color, test the color stability on washing and irradiate, study the model of dyeing process for family industrial and transmit the dyeing technology to community by workshop.

The results of this study were

1. The community leader supported the natural dyeing process as OTOP. The members of community organized themselves to be cotton product group. The weakness were lacking of scientific process for developing the method of dyeing and pure material for dyeing.
2. The color of extracted dye from coconut was red – violet, the pterocarpus was orange – red, their acidity were acid, the chemical compositions were tannin, phenolic compounds and anthraquinone but not riboflavine. The dye adsorptivities were rather low. The color tone of dye on cotton yarns from coconut were brown – pink, from pterocarpus were brown.
3. The dyeing processes for family industrial were rather similar to the laboratory.
4. The evaluation of thinking of the workshop members for the processes of dyeing were in the highest level.

