# ABSTRACT

**Title** : Enhancing Color Fastness in Naturally Dyed Cotton Yarn by Steaming

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**Keyword** : wash fastness steaming natural dye

The objective of Enhancing Color Fastness in Naturally Dyed Cotton Yarn by Steaming research is to study steaming methods of naturally dyed cotton yarn, changes of their wash fastness.

The sample group was naturally dyed cotton yarn of Krang , Din Daeng, Ma Klua, Pradoo, Sattabun, Sa Dao, Sa Mor, Klone, Krabok and Putsa . The dried yarn were steamed at the temperature of 90 degrees Celsius.The duration of steaming was 20, 30 and 40 minutes. The Munsell Book of Color is used for measuring color shades of the yarn, the Gray Scale for measuring wash fastness. The data were laboratory experimentation. The data were qualitatively analyzed, while Mode was used to analyze quantitative data.

**Result**

Each time, 60 strands of yarn should be steamed with 45 liters of water.. Pieces of cloth are wedged externally at the joint between the steamer and the pan .Regarding color change, it is found that there was no change in colors in every experiment. When the colors of the yarn with different steaming duration were compared, it is found that value and chroma of eight colors were higher than those without steaming. When wash fastness was compared, it is found that eight colors of steamed yarn had a higher level of wash fastness than their non-steamed counterparts. When duration of steaming of the eight yarn was compared for their fastness, it is found that five of them with the steaming duration of 30 minutes had the best fastness. In regard to staining, the staining levels from good to very good for the steamed counterparts. When staining on cotton and mixed fiber is compared, it is uncovered that five colors have the same staining level on both types, whereas the other five have a better level of staining on cotton than on mixed fiber.

**Recommendation**

This research includes some recommendation and some cautions for the cloth manufacturers, as well as some recommendations for further research.