UTILIZATION AND EVALUATION OF RED CABBAGE *(Brassica olaracea var. capitata f. rubra)* AS TEXTILE DYE

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ABSTRACT

CRUZ, ANGHELICA CLAIRE R., LLANES, KIRSTINE EMMANUELLE G. and MOJICA, CHAMPAGNE F. Utilization and Evaluation of Red Cabbage (*Brassica olaraceavar. capitata* f. rubra) as Textile Dye. Research Study (General Science Curriculum) Science High School, Cavite State University, Indang, Cavite. Adviser: Dr. Mariedel L. Autriz

This study was conducted to determine the suitability of red cabbage as a source of textile dye. Specifically, the study aimed to: (1)determine which combination of red cabbage extract and vinegar would give the desired color;(2)determine the amount of alum that is ideal to make the dye color fast; and (3) evaluate the effect of the different levels of alum in the colorfastness of the dyed fabric.

The first experiment conducted was color preference test. There were six levels of vinegar (0, 20, 40, 60, 80 and 100 ml) used to mix with 100 ml of crude red cabbage extract. The most preferred color was used to proceed to the next experiment – the efficacy of alum as mordant. Alum was added at the rate of 0, 20, 40, 60, 80 and 100 grams corresponding to six treatments I-VI, respectively.

Results showed that T2 (20ml vinegar) and T4 (80ml vinegar) had the highest scores. To break the tie, another round of scoring was done where T4 became more preferred over T2.

For Experiment II, all textile samples corresponding to different levels of alum became faded during the first wash and turned white during the second wash. It was found that the red cabbage dye produced from this experiment was an adjective dye. Higher amounts of mordant were recommended to make the textile dye more colorfast.

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