

National University of Science and Technology

FACULTY OF INDUSTRIAL TECHNOLOGY Department of textile technology



AN INVESTIGATION OF LABORATORY-TO- BULK REPRODUCIBILITY AT MERSPIN DYEHOUSE

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Abstract

This project is based on a research and experiments done at Merspin dyehouse by a student to try and achieve laboratory-to-bulk reproducibility of recipes. It was observed that there were serious incompatibilities between the shades produced in the laboratory and those of bulk production after transfer of recipes. This has resulted in the increase of the cost of production as time and resources of the company are spent doing the corrective processes. After an investigation was done it was discovered that there were many causes of non-reproducibility which included inconsistent processing and machine differences. After trying to eliminate the inconsistency in processing like different liquor ratios, dyeing temperatures and dyeing time, it was discovered that there was a relationship between results obtained in the laboratory and results from the bulk dyeing. Hopefully this relationship will be used to find the conversion factor which will enable the production of laboratory-to-bulk reproducibility.