

THE EFFICIENCY AND COST OF LAUNDERING TEXTILES AS
RELATED TO DETERGENT TYPE AND WATER TEMPERATURE

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Objectives:

- (a) To determine concomitant effects on textiles due to detergent type and water temperature used in washing.
- (b) To study the removal of soil from textiles in regard to detergent type and water temperature.

Procedure:

- (a) An Acala 4-42 cotton fabric was artificially soiled with clay particles and components which simulate sebum.
- (b) Both a liquid, biodegradable detergent for use in cold water and a heavy-duty biodegradable detergent for use in hot water were used with high (140°F.) and low (70°F.) water temperatures for laundering in a conventional home-type washer and dryer. A total of 24 launderings was done with periodic withdrawals.
- (c) Soil removal and redeposition were evaluated by reflectance methods using a Gardner Color Difference Meter. Other physical measurements included warp breaking strength and dimensional changes. Hand and visual changes were evaluated by a panel.

Work Completed:

- (a) The laboratory soilings and launderings were completed last summer. The visual, hand and dimensional changes of the fabric were evaluated by this station. The remaining physical properties were done by California on specimens sent from this station.
- (b) A review of literature for soil removal as influenced by water temperature was completed and forwarded to all committee members for inclusion in the final report.

Work in Progress:

- (a) The data from this study is being analyzed and evaluated in preparation for the publication of this work. The report for publication will be completed during 1967.

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ECONOMIC MODELS FOR COTTON GINNING-WAREHOUSING COMPLEXES

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Total cost for assembling seed cotton; processing, baling and packaging lint cotton at gins; transporting baled cotton to warehouses; and warehouse-