

**DYEABLE DURABLE PRESS COTTON:
DYE BATH ADJUSTMENTS**

**Robert M. Reinhardt, Elena E. Graves and Eugene J.
Blanchard**

**Southern Regional Research Center
Agricultural Research Service, U. S. D. A.
New Orleans, LA**

Abstract

Conventional cellulose crosslinking treatments used to prepare durable press cottons yield fabrics that are resistant to dyeing under practical conditions. Modification of the crosslinking treatment by inclusion of an appropriate additive in the chemical finishing solution produces a fabric that is dyeable with suitable adjustments of the usual dye procedures. Among additives that have been used successfully are choline chloride (a quaternary ammonium salt) and triethanolamine hydrochloride (an amine salt) which introduce cationic sites in the durable press fabrics. In previous reports, we have shown how changes in the finishing treatment influence dye receptivity. In this discussion, we demonstrate how dye bath adjustments also effect dyeability of the modified crosslinked cottons. Among dye bath factors investigated were water quality, dye concentration, additives, liquor/fabric ratio, presence/absence of salt, pH adjustment, and time and temperature of the dyeing.