INTRODUCTION

Even though it is produced in over 90 countries, cotton is the most commonly used fiber in the United States. Cotton is a plant-based fiber composed primarily of cellulose. Once the fibers are cleaned and prepared, cotton is sorted by fiber length, color and cleanliness (Cohen & Johnson, 2012). Longer fibers result in stronger fabrics with a more luxurious hand, luster and are rated as higher quality. Typically, luxury items use longer fiber fabrics. Examples include: sweaters, blouses, towels, and sheets. Everyday items that are more affordable often use shorter cotton fibers such as t-shirts, jeans, and other mass produced items (Kadolph, Langford, Hollen & Saddler, 1993).

Cotton has always been an important fiber. The use of cotton was first documented in China, Egypt, India, Mexico, and Peru. Settlers in the Southern Colonies (now known as the United States) were the first to grow cotton in the U.S. Before Eli Whitney’s invention of the cotton gin, every ounce of cotton had to be hand sorted and cleaned. Each cotton worker could only produce approximately one pound of clean cotton per year. Once the cotton gin became widely used, approximately 50 pounds of cotton could be cleaned per day (Kadolph, Langford, Hollen & Saddler, 1993). Today, cotton is produced at a rate of approximately 125 million bales each year (Cohen & Johnson, 2012). Further, the cotton production industry (from farming to manufacturing) is seen as a key economic development strategy for developing and established countries.
ADVANTAGES OF COTTON FABRIC:
• Good strength
• Abrasion resistant
• Hydrophilic: absorbs moisture readily and dries quickly, making it cool in warm weather
• Stronger when wet
• Fair drape
• Soft hand (the feel of a fiber, yarn, or fabric to the wearer)
• Inexpensive
• Machine washable (unless prohibited by manufacturer due to added finishes to the fiber/fabric)

DISADVANTAGES OF COTTON FABRIC:
• Poor elasticity
• Poor resiliency (fabric does not return to original shape or form after being altered)
• Little luster (reflection of light on fabric)
• Fabric pills easily (lint forms due to short fiber length)
• Susceptible to shrinking
• Wrinkles easily

END USES OF COTTON FABRIC:
• Wide range of apparel (shirts, blouses, pants)
• Interior fabrics (drapes, sheets, towels)
• Industrial uses (medical supplies, book bindings, luggage)

REFERENCES:

Kate Black, USU Extension Intern
Lindsey Shirley, PhD, Clothing and Textiles Specialist
Sarah Hatch, USU Extension Intern
Jacqueline Hatch, USU Extension Intern
Utah State University is committed to providing an environment free from harassment and other forms of illegal discrimination based on race, color, religion, sex, national origin, age (40 and older), disability, and veteran’s status. USU’s policy also prohibits discrimination on the basis of sexual orientation in employment and academic related practices and decision.

Utah State University employees and students cannot, because of race, color, religion, sex, national origin, age, disability, or veteran’s status, refuse to hire; discharge; promote; demote; terminate; discriminate in compensation; or discriminate regarding terms, privileges, or conditions of employment, against any person otherwise qualified. Employees and students also cannot discriminate in the classroom, residence halls, or in on/off campus, USU-sponsored events and activities.

This publication is issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle E. Cockett, Vice President for Extension and Agriculture, Utah State University.(FC/Clothing&Textiles/2012-23pr)