



# RAMIE What's That?

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IN GOOD SEASON

**I'M A CHRONIC LABEL READER** and I always want to know what things are made of. When I first saw a fabric label that read 55% cotton 45% ramie, I thought that "ramie" was some new synthetic fiber or a type of wool. Well, I found out that it was neither.

Ramie is a fiber from a plant. Most people think of cotton plants when they think of clothing, but there are other plants that are used for fiber. While cotton fibers come from the plant's seed head, ramie is a bast fiber that comes from the stalk of the plant. Bast fibers, like flax, hemp and ramie, are specialized support cells found in phloem (inner bark). Archaeologists suspect that bast fibers were the first fibers used in the process of spinning and weaving.

The ramie plant, *Boehmeria nivea*, is a flowering perennial plant in

the nettle family. Called China grass or white ramie, the fibers are white, have a silky luster and are very durable, becoming stronger when wet. The plant grows from underground rhizomes and the tall stems can be harvested several times a year in favorable growing conditions. A native of Asia, it thrives in warm moist climates.

Ramie has been used to make textiles for at least 5,000 years. It has been found in the wrappings of ancient Egyptian mummies as early as 3,000 BC. It has the unique property of being bacteria and fungi resistant, ideal for mummification.

Today, ramie is valued for the qualities it gives to other fabrics. Like linen, it breathes and is absorbent, making it a cool cloth to wear in hot climates. It also gives a nice luster to fabrics when combined with other fibers. Ramie is stiff and

brittle without much elasticity. The stiffness helps prevent shrinkage when added to wool. But the brittleness of the fiber can cause abrasions if creased by ironing or folding.

Ramie's biggest drawback, and the main reason it is not used in many domestic fabrics, is the intensive labor required to process it. To harvest the bast fibers, the cortex (bark) has to be removed from the stem (decortication) while the stems are fresh and supple. The outer bark is then scraped off and the remaining cortex material has to be de-gummed in alkaline solution to remove pectin and gums from the fibers. The fiber is then washed and dried and made ready for spinning. It is naturally white so it does not need to be bleached. In the past, this entire process was done entirely by hand, though today some of the process is mechanized.

Ramie is becoming more prevalent in the clothing industry as it becomes available from China and other Asian countries. There has been an interest in growing ramie in the U.S. now that some of the processing can be done by machine. However, it is unlikely that ramie will compete with cotton and synthetic fabrics because it is still too costly.

A warm climate crop, ramie is not likely to be seen here in Northern Ohio. If you would like to see ramie growing, come visit the Plant Science Center and check out the fiber garden to see a wide variety of plants that can be used for textiles.

