



SUSTAINABILITY PLUS

WITH COTTON

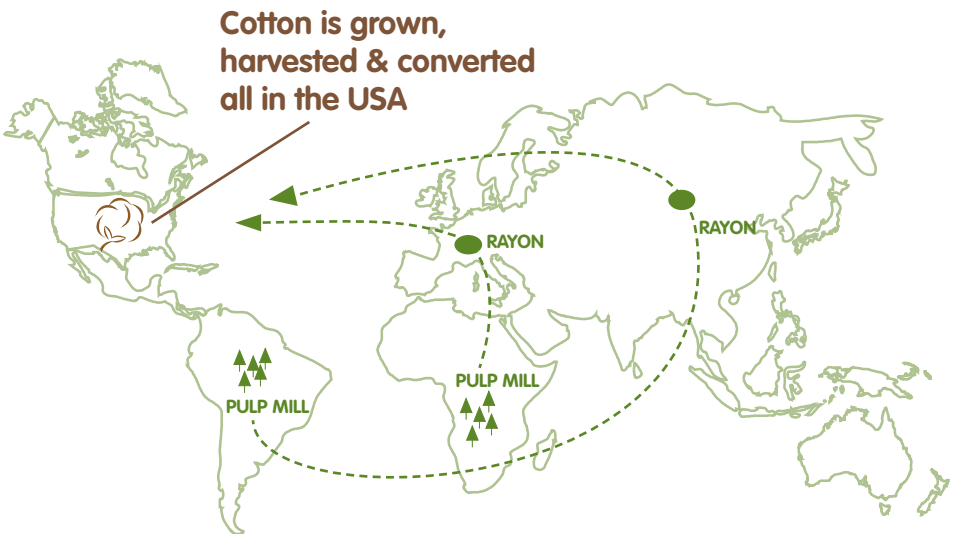


COTTON IS THE PERFECT CHOICE FOR NONWOVEN FABRICS.

It fulfills the customer's preference and is naturally sustainable.

Let's review Cotton's supply line to the consumer and compare it to rayon...

- **Cotton** is grown & harvested in the Southeast United States; ginned in the U.S.; purified in the U.S. and shipped to the Nonwovens producer, on to the converter, then to the retail shelves in the U.S. (A perfect sustainable supply chain).
- **Rayon** is produced from trees grown and pulped in Africa or South America; then shipped to Asia or Europe and converted to rayon fiber; then shipped to a converter in North America and then to the retail shelf. (Hardly a Sustainable Solution)



Why is there no viscose rayon produced in the USA?

- Cotton has an 8 – 9 month renewable life cycle; trees take 15 – 20 years to grow. Question: How much wood pulp is required for a pound of rayon?

FACT...

- 2/3 of the U.S. cotton crop is irrigated exclusively from rain. The remaining 1/3 that is irrigated is now irrigated with GPS technology targeting only the areas requiring water.

- The water usage to grow 1 pound of cotton in the U.S. has decreased by **49%** in the past 20 years

- U.S. farmers have implemented conservation tillage resulting in a net CO₂ reduction = to removing emissions from 2,711 cars permanently

- Soil loss has decreased by **34%** in the past 20 years due to these conservation steps

- CO₂ emissions have decreased by **33%** over the past 20 years.

- Yields per acre have increased by **31%** in the past 20 years reducing the amount of land required to produce a pound of cotton by **25%**.



- Energy to produce 1 lb. of cotton has reduced by **66%** in the past 20 years.

- Cotton is energy positive requiring 1 pound of diesel per acre of cotton

- Energy in – 36 kwh to grow cotton

- Energy out – 80 kwh of bio-cotton seed oil

- **93%** of the cotton grown in the U.S. is from engineered seeds that require less pesticides, less land, fewer inputs, less tillage resulting in a higher yield per acre.

- In a span of 12 years, the number of cotton acres utilizing conservation tillage increased from .5 Million acres to 3.0 + Million acres.



- For every pound of cotton fiber coming from the cotton plant; there is 1.6 pounds of other useful products.

- Cottonseed Oil
 - Dairy Feed
 - Mulch



Why is Cotton the Preferred Fiber by Consumers?



- An **independent** AC Nielson **survey** found that over **80%** of 500 mothers interviewed **preferred cotton** in their baby wipes.
- **Enhanced Softness** – **54%** of a survey group of 500 said that cotton is preferred because of its softness
- **Superior Wiping Performance** – In an independent test conducted by Shuster Laboratories, cotton was found to have **29% superior** wiping performance to rayon, **42% better** than airlaid pulp and **45% better** than polyester.
- **Recognition of the Cotton Seal** – in an independent test conducted at retail, 2 stacks of identical pants with the same price were placed next to each other; (one stack of pants had the cotton seal on them, the other did not) the stack with the Cotton Seal **outsold** that other stack **by 8%** due to the recognition of cotton in the product as evidenced by the seal.
- **Wet Wipes** – Independent tests found that with **30% cotton** in the fabric, **product feel** and **performance** attributes were **optimized**. With as little as **15%** cotton in a fabric, it made a meaningful difference.
- Cotton is hypoallergenic
- Cotton is **Nature's own fiber**; safe and free of chemicals
- **Superior Wet Strength** – Cotton fiber becomes **30% stronger** when wet and maintains the natural feel when wet.
- When is the last time you heard consumer asking for rayon or wood pulp in the products?



Sustainability PLUS with Cotton

- A Natural Solution for Today's Eco-Conscious Consumer
- Fulfills Consumer Preference for Cotton
- Proven Enhanced Wiping Performance
- Cotton = Brand Loyalty
- Cotton = Proven Increased Market Share
- Cotton = Sustainability Plus

