Activities that provide environmental, economic and quality of life benefits…..
Right now and for generations to come
Historical Timeline

- PROFITABILITY AND EFFICIENCY
  - 1970 - 2005

- DEFENSIVE
  - To provide fact-based, scientific information in response to NGO’s false claims about cotton

- PROACTIVE
  - Getting the message out through workshops, stakeholder visits
  - Website
  - Natural Resource Survey (NRS) concluded October 2008
  - 2nd Ag. Sustainability Video February 2009
Historical Timeline

- COLLABORATIVE
  - Field to Market Alliance for Sustainable Agriculture
  - Better Cotton Initiative
  - Sustainability Consortium
  - Brands/retailers
  - Life Cycle Analysis

- FUTURE FOCUSED
  - Cotton byproducts
  - Innovative uses for cotton
Proactive

- Getting the message out through workshops, stakeholder visits
- Website
- Natural Resource Survey (NRS) concluded October 2008
- 2nd Ag. Sustainability Video February 2009
NEW! Life Cycle Inventory Data For Cotton

Read a detailed summary of cotton's life cycle inventory, as it relates to land, water, environment, energy, greenhouse gas emissions and adjacent ecosystems.

Recycling
Cotton is natural, renewable and recyclable.
2008 Natural Resource Grower Survey Published in ICAC Recorder

US growers are responsible stewards of the environment.
Collaborative

- Field to Market Alliance for Sustainable Agriculture
- Better Cotton Initiative
- Sustainability Consortium
- Brands/retailers
- Life Cycle Analysis
Field-To-Market Progress Report
(cotton’s foot print has steadily improved)

www.fieldtomarket.org
Commodity organizations
Food companies
Ag input suppliers
Environmental organizations
“Field Print” Calculator

- Get grower’s involved
- Allows grower comparison with:
  - State and National averages
  - Alternative cotton production practices
- Educate growers about practices that lower their environmental footprint
Better Cotton Initiative (BCI)

- Emphasizes farmer training and fair wage
- Not organic, allows GM
- Source as for conventional
- No certification
- No price premium
- No label
What is Life Cycle Assessment (LCA)?

- Environmental footprint of a product from raw material to disposal
Future-focused

- Cotton byproducts
- Innovative uses for cotton
Cottonseed: A New Food?

• Some lines show 98% reduction in gossypol
**Edible Cotton.** Genetic engineers have removed a powerful toxin from cottonseed, which is rich in protein.

1. Genetically modified cotton in a field trial in Texas.
2. A new lab technique keeps toxins from forming in protein-laden seeds. Leaves still contain the toxin to protect against bugs.

**By Kevin Walsh**

It's a trick in today's world as it was in the antibiotics. South cotton is king. The plant has been cultivated for its fiber for over 2,000 years, and today it's grown by more than 20 million farmers in some 60 countries. But while cotton accounts for nearly 40% of the fiber used worldwide to make clothing, there's one thing the plant has never been able to do—well, feed people. Cottonseed is a rich source of protein—the current cotton crop produces enough seeds to meet the daily requirements of half a billion people a year. But the seeds can be consumed only after an extensive refining process removes the gossypol, a toxic chemical that helps protect the plant from insects and bacterial infection. "People, pigs, chickens—none of us can stomach gossypol," says Karen Hake, vice president of agricultural research for the industry group Cotton Inc. Only cows and other ruminants can handle it. Remove the gossypol, however, and you have a cheap and abundant form of protein for everyone. But get rid of all the gossypol, as plant breeders did in the 1950s, and insects will devour the defensless cotton. Enter Keerti Rathore, a professor at Texas A&M University, who found a way around the problem through genetic engineering. In new field trial data, Rathore's team demonstrated that it can turn off the genes that stimulate the production of gossypol in the cottonseed while the rest of the plant keeps its natural defenses. "This research potentially saves the door to utilizing safely the more than 400 million tons of cottonseed produced annually as a large, valuable protein source," says Norman Borlaug, an American agriculturalist who won the Nobel Peace Prize in 1970 for developing high-yield wheat varieties that have helped increase the world's food supply.

Rathore used a new technique, called RNA interference, to construct a genetic sequence that blocked the gossypol-producing enzyme in the seeds and leaves. After succeeding in the lab, he began a test in a greenhouse to see if the genetically modified cotton plant would survive and pass on its trait. Rathore's just-completed data show that the modified cotton appears to be normal in every way other than the fact that it has instantly edible seeds. "What works in the greenhouse should hold true in the fields," he says. Genetically modified cottonseed will need government approval before they hit the market. And they're more likely to be used first to supplement fish or animal feed. But with the global population still on the rise and farmland limited, the planet can use free protein. And you might even like it. "It's not bad," says Rathore, who has popped a few seeds. "Tastes like chicken!"
A USB charger electronic circuitry is embedded into the waist of the jacket, invisible to the outside, allowing the powering of portable electronic devices such as MP4 Players, phones, iPods, etc.

Cotton yarns become conductive using a Cornell University patented process that combines nanoparticles and a thin polymer film. The coating is less than 100nm thick preserving the flexibility of the cotton and its comfort properties.

Ultrathin photovoltaic films become part of the design of the jacket and connected using sewn conductive cotton. The films are less than 300 μm thick so they do not interfere with the normal draping of the fiber.
Cotton. From Blue to Green.™
Provide Food, Feed and Fiber to a population that will increase by 50% in the next 40 years.

Source: U.S. Census Bureau, International Data Base, December 2008 Update.