



# Cotton: From Field to Fabric

## 1. Planting

Farmers in Alabama prepare the soil and plant cotton seeds in early spring.



## 2. Growing

Seedlings emerge from the ground only two weeks after planting! The plant blooms around 8-10 weeks old. The flower changes from a creamy white color to pinkish red and then withers and falls off. This leaves behind the green developing pod called the cotton boll.



## 3. Boll opens

The boll opens to let air dry the white, clean fiber and fluff it. Now the cotton is ready to be harvested. In Alabama, the cotton boll opens in the fall.



## 4. Picking

Cotton is picked by machines called cotton pickers. These machines can cover six to eight rows at a time and can harvest up to 190,000 pounds of cottonseed per day. In Alabama, cotton is harvested in the fall not long after the boll opens.



## 5. Modules

Cotton from the picker is compressed to form a module. Modules can be left in the field for storage until it is time to haul cotton to the gin. Modules can either be rectangular or round.



## 6. Ginning

Modules are then moved to the cotton gin where cotton is dried, cleaned and the fiber and seed are mechanically separated.



## 7. Cottonseed

After being separated from the fiber, the seed is processed into cottonseed meal, cottonseed oil, hulls and linters. The meal and hulls are used for livestock feed or fertilizer. The oil is used in cooking oils, cosmetics and snack foods.



## 8. Cotton lint

After separation, the raw fiber, or lint, is pressed into bales. The bales are banded with eight steel straps, tested for classing, wrapped for protection, and then shipped to storage yards, textile mills and foreign countries.



## Did you know?

Cotton is a food, fiber and feed crop! This means we eat it, wear it, and feed it to livestock.



**Did you know?**

**Cotton can absorb 27 times its own weight of water.**



Eli Whitney

# Cotton By-products

There are three primary products resulting from cotton production: *cotton lint*, *linters* and *cottonseed*.

**Cotton Lint** – Cotton lint is the raw fiber from the plant which is pressed into bales at the cotton gin. Lint is used in clothes, shoe strings, towels and dollar bills.

**Linters** – Linters are short fibers that are not removed during the ginning process. Linters are used in plastics, paper products, films, yarns, cosmetics and smokeless gunpowder.

**Cottonseed** – About two-thirds of a harvested cotton crop is composed of the seed, which is crushed to separate its three products – oil, meal and hulls.

**Oil** – The most valuable by-product of the cottonseed. It is made by crushing the cottonseed kernel. Oil is used in cooking oil, salad dressings, soaps and snack foods.

**Hull** – The outer covering of the cotton seed. Hulls are used in livestock feed, fertilizer and fuel.

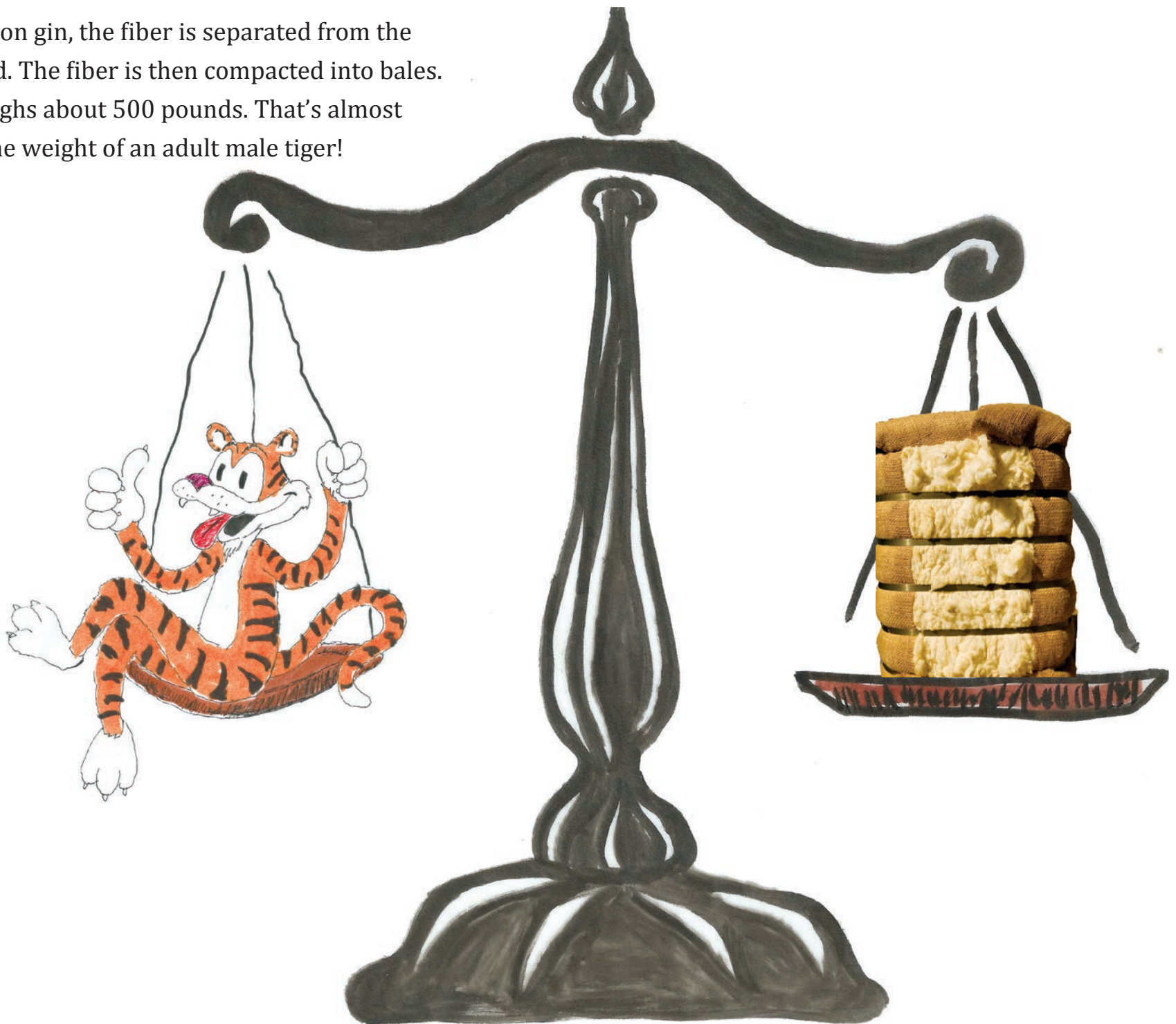
**Meal** – The second most valuable by-product of cottonseed is made by grinding the cottonseed. Meal is used in livestock and poultry feed and as a fertilizer.

## Cotton Gin

Invented by Eli Whitney in 1793, the cotton gin could separate 50 pounds of lint in 10 hours. Improvements were made over the years, and now modern gins can remove trash, dry, moisturize, sort, clean and bale cotton. Today, cotton gins can separate nearly 29,000 pounds of lint in one hour!

## What is a bale?

At the cotton gin, the fiber is separated from the cottonseed. The fiber is then compacted into bales. A bale weighs about 500 pounds. That's almost equal to the weight of an adult male tiger!





# What can you make from a bale of cotton?

215 pairs of blue jeans

249 bed sheets

690 bath towels

1,217 T-shirts

1,256 pillow cases

4,321 socks

313,600 \$100 dollar bills

## Boll Weevil

The boll weevil is a Central American pest that feeds on cotton and devastated cotton production across the United States.

Around 1910, cotton production in Alabama dropped from 155 pounds per acre to 95 pounds per acre because of the boll weevil.

The Boll Weevil Eradication Program was started in the 1970s to help eradicate the pest. Because of this program, cotton has to be registered no matter where it is grown or the size of the field. This means that even if you are growing it in your backyard just to watch it grow, it still needs to be registered.

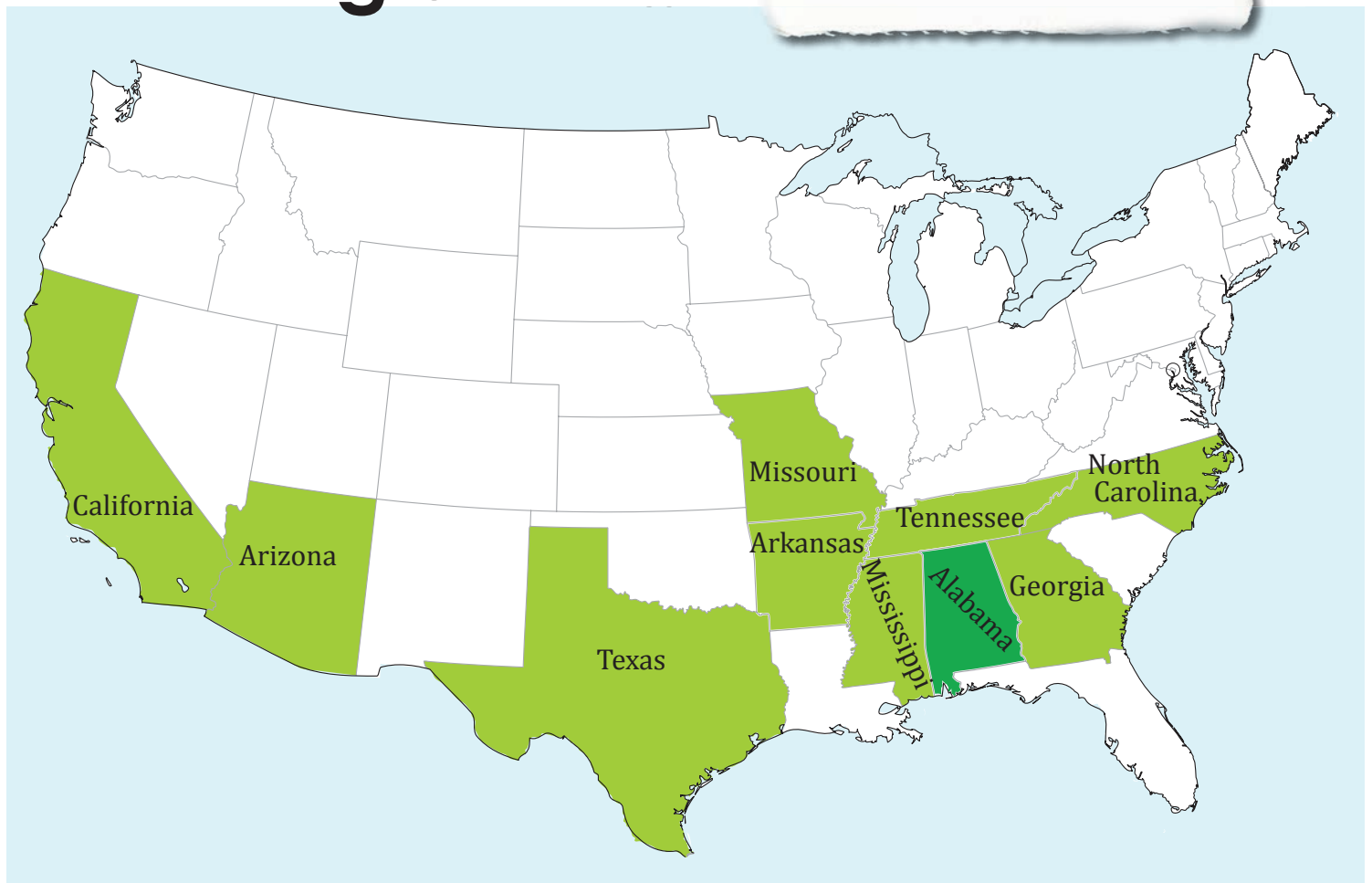
Farmers in south Alabama made the best of the pest and started successfully practicing crop rotation by producing peanuts. Enterprise, Alabama has a monument of a boll weevil as a reminder of the necessity of growing different crops.



## Top Cotton Producing States

1. Texas
2. Georgia
3. North Carolina
4. California
5. Arkansas
6. Mississippi
7. Alabama
8. Missouri
9. Tennessee
10. Arizona

**These states make up the Cotton Belt.**

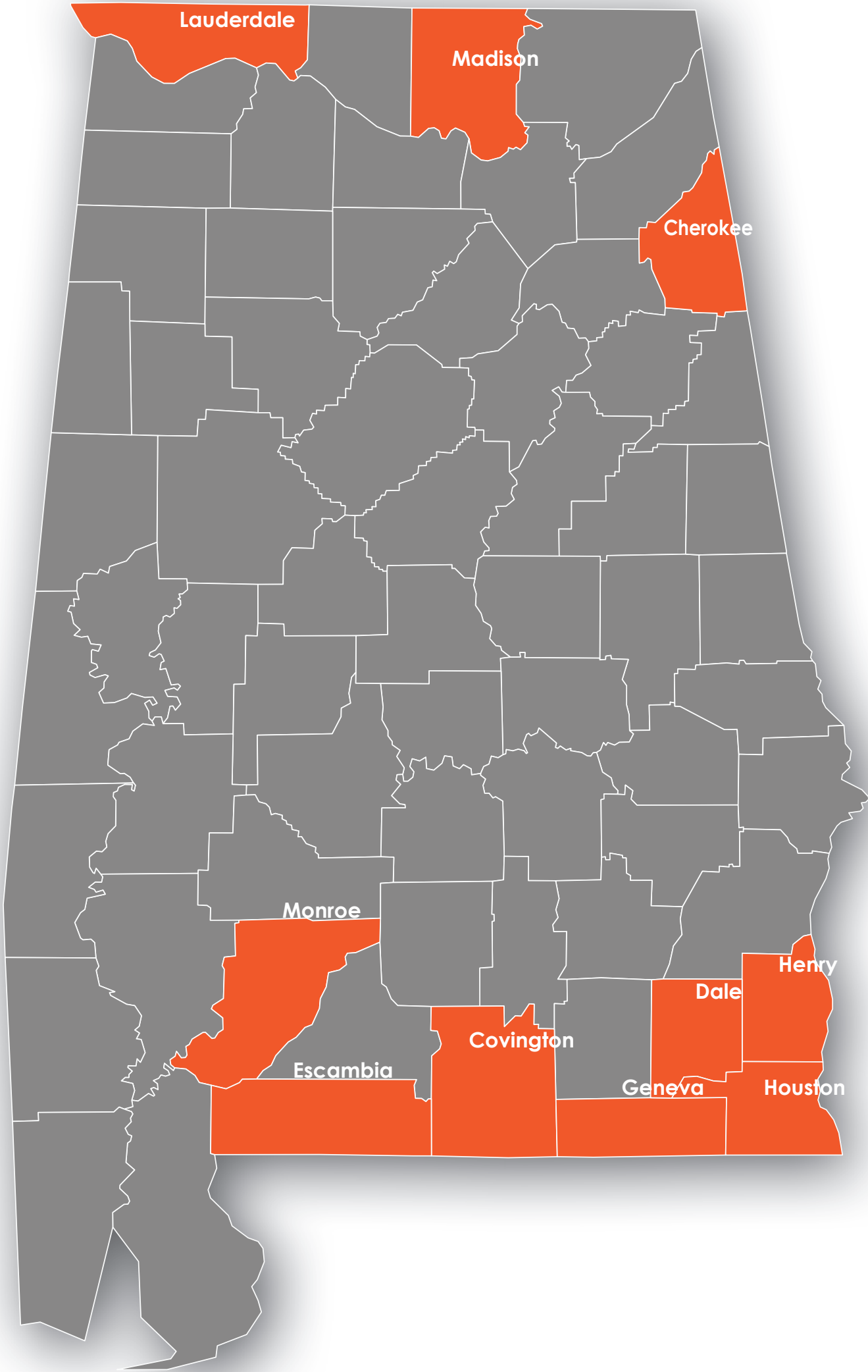




# Cotton in Our State

Cotton is grown in 59 of Alabama’s 67 counties. Can you find your county?

The top 10 producing counties are Madison, Houston, Escambia, Geneva, Covington, Cherokee, Monroe, Henry, Dale and Lauderdale.



### Sources

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