

## Planet Money Makes a T-Shirt- Cotton

### Three Reasons U.S. Cotton Is King

You can grow cotton in places where land and labor are cheap. You can grow it in places that are close to the countries — Colombia, Indonesia, Bangladesh — where the Planet Money T-shirt was made. Yet most of the cotton in the Planet Money T-shirts was grown in the U.S. In fact, the U.S. exports more cotton than any country in the world. Here are three reasons why.

### 1. TECHNOLOGY

#### SO MUCH COTTON, SO FEW PEOPLE

Bowen Flowers, a Mississippi cotton farmer, shared some of the numbers behind his operation.

PEOPLE	13
rivers	8
Mechanics / technicians	3
Supervisors	2
MACHINES	26
Cotton pickers	5
Cultivators	5
Hooded sprayers	5
Planters	5
Tractors	5
Crop duster	1

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## HARVEST

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In 2013, the farm will produce 13,000 bales of cotton — the equivalent of **9.4 million T-shirts**.



Notes:

- Cotton yields are projections.
- Flowers' farm also produces other crops. Some of the machinery and staff listed here also work elsewhere on the farm.

The U.S. has perfected cotton by treating it as a high-tech product.

Genetically modified crops are controversial, but not among U.S. cotton farmers: **Roughly 90 percent of U.S. cotton** comes from genetically modified seeds that were designed in labs to produce more cotton and resist pests.

And when it's time to harvest the cotton, U.S. farmers use, essentially, giant robots. Just last year, Bowen Flowers, the cotton farmer in the video, bought five John Deere 7760 pickers. They're the size of tanks, but are finely tuned, self-driving machines that sense the cotton plant stalks and twist off just the cotton puffs. Flowers says he paid about \$600,000 for each picker.

Like the seeds, the pickers get more productive every year as the technology improves. The newest John Deere picker needs just one guy to do what it took five guys to do a couple years ago. One driver can pick 100 acres of cotton a day — and he barely needs to touch the steering wheel.

## 2. REPORT CARDS

Every year, the U.S. Department of Agriculture tests all 17 million bales of cotton harvested in the U.S. The farmers pay for the testing, and the USDA figures out exactly how fine, long, strong and bright white every batch of cotton is. Cotton buyers all around the world can get a report card that tells them everything they need to know about every bale of U.S. cotton.

Here are a few [key specs](#) for a sample from Bowen Flowers' crop.

### HOW BOWEN FLOWERS' COTTON RATED



What the numbers mean: Color is measured on a scale from 11-1 (white and bright) to 85-5 (yellow and dark). Fineness is measured in grams per inch. Length is measured in inches and refers to the average length of the longer half of the fibers. Strength is a measure of how much force is required to tear the fibers; the units are grams per tex.

To understand how this keeps American cotton on top, it helps to travel 10,000 miles to Indonesia, where our cotton was spun into yarn for the men's T-shirt. (When we say "yarn," think thread. In the clothing business, people call it yarn.)

A factory manager there told us that, when he orders U.S. cotton, he knows exactly what he's getting before he ever sees or touches the cotton. The spinners have a special recipe for their yarn, and they need exactly the right cotton — exactly the right color, exactly the right length, exactly the right fineness. No surprises.

The USDA testing means a cotton buyer in Indonesia can order a bale of U.S. cotton that's guaranteed to match his exact specifications, every time.

### **3. SUBSIDIES**

U.S. cotton farmers benefit from a bunch of government subsidy programs. (Other countries subsidize their cotton farmers as well, by the way.) The government gives taxpayer money directly to cotton farmers, and subsidizes insurance that protects farmers if their harvest is weak or cotton prices fall.

#### **HOW THE U.S. GOVERNMENT SUBSIDIZES COTTON FARMERS**

##### **Crop Insurance**

The government subsidizes several kinds of insurance available to cotton farmers. One popular option is revenue insurance, which pays farmers if they make less money than they expect. This can happen for a few reasons — cotton prices may fall, or a farmer may have a bad harvest. The government pays a big chunk of the premiums for the farmers. The government also pays a chunk of the operating costs of the companies that sell the insurance.

##### **Payments When Prices Fall**

Through the “counter-cyclical program,” the federal government pays cotton farmers when the average price of cotton falls below a certain level.

##### **Direct Payments**

Cotton farmers get cash payments from the government, even if cotton prices are going through the roof. Some farmers who used to grow cotton but don't grow it anymore also get payments through this program.

The latest version of the farm bill, which Congress is working on this month, could change these subsidies. Farmers may get less money in the form of direct payments, and more in the form of subsidized insurance.