

Dispelling Myths about U.S. Support to Cotton Farmers: U.S. Programs Have Not Caused Low Cotton Prices and Hurt Foreign Growers

Overview

U.S. farm programs benefiting cotton farmers have attracted considerable attention and criticism recently, especially in light of low world cotton prices in recent years. The myth presented by critics is simple: U.S. cotton production and exports went up when prices were going down so these must have been the effect of U.S. farm programs. Critics also argue that U.S. cotton support increased under the 2002 farm bill, further driving down cotton prices. But the facts do not support these myths. The facts are:

- Cotton prices actually increased in each of the first two years under the 2002 farm bill, despite the alleged increase in U.S. cotton support.
- The U.S. share of world cotton production has remained stable and even declined in recent years, despite the alleged increase in U.S. cotton support.
- U.S. cotton's share of world cotton consumption has remained stable and even declined in recent years because U.S. mill use decreased as U.S. cotton exports increased.
- U.S. farmers increase and decrease cotton acreage like producers in the rest of the world, showing that U.S. farmers are responding to market price signals.
- U.S. farmers responded to expected market prices in recent years by planting more cotton when those prices for cotton looked more attractive than for competing crops – just as foreign producers did – and less cotton when cotton looked less attractive.

Thus, the facts simply do not support the myth that U.S. farm programs have distorted trade, caused low cotton prices, and hurt foreign growers. Rather, U.S. farm programs have operated as designed, supporting farmers' incomes while allowing them to react to market signals.

MYTH 1: U.S. Support to Cotton Farmers Results in Low Cotton Prices

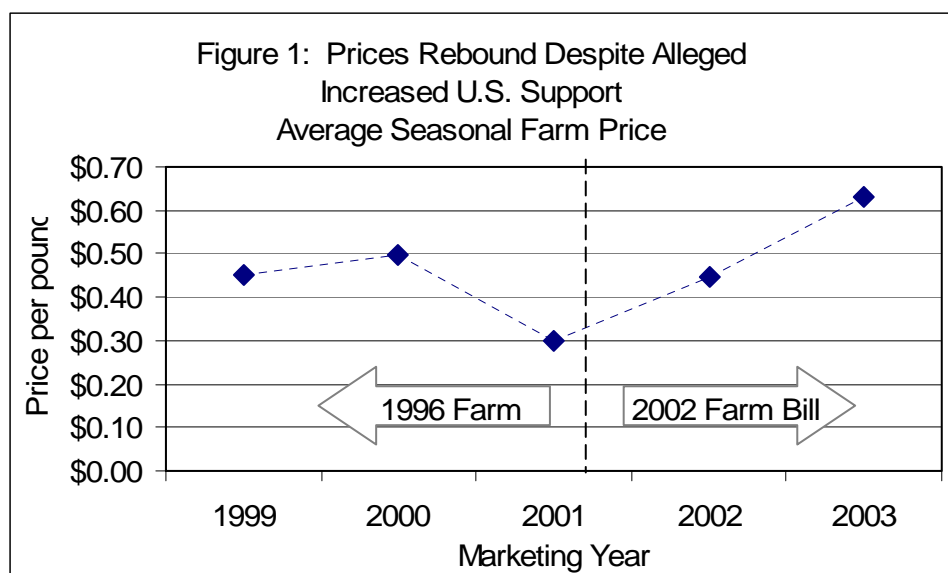
REALITY: U.S. Farm Programs Have not Caused Low Cotton Prices

Several countries (such as Brazil) and interest groups have loudly complained that U.S. farm programs have caused increased U.S. cotton production and exports, driving down prices and hurting producers in the rest of the world. They also argue that the U.S. 2002 farm bill increased support to cotton, further increasing production effects and trade distortions. Several media sources have accepted these arguments at face value and repeated them. However, the facts do not support these claims about U.S. farm programs.

Fact Rebutting Myth 1: Cotton prices have increased despite the alleged increase in U.S. cotton support

U.S. and world cotton prices have actually *risen* substantially in each of the first two marketing years under the 2002 farm bill (which critics allege *increased* support to cotton), contradicting those claims that recent low prices resulted from U.S. farm programs. Put simply, U.S. farm programs did not prevent prices from recovering in marketing years 2002 and 2003 any more than they were responsible for prices declining in marketing years 1999 through 2001.

- Figure 1 shows that average U.S. cotton farm prices in marketing year 2002 were 49.3 percent higher than marketing year 2001 prices (an increase of 14.7 cents per pound).
- Average U.S. cotton farm prices in marketing year 2003 were another 41.3 percent higher than marketing year 2002 prices (an increase of 18.4 cents per pound).



- Figure 2 shows similar increases in world cotton prices, as reflected in the A-index Northern Europe (an industry benchmark), in marketing years 2002 and 2003.

Fact Rebutting Myth 1: Recent Independent Studies Find Very Low Price Impacts From U.S. Programs

Brazil has asserted that world cotton prices would be 12.6 percent higher in the absence of certain U.S. farm programs. Some media sources have accepted that estimate without any further analysis. The United States' analysis is that U.S. farm programs have not had significant production and price effects in recent years. Three recent independent studies demonstrate that Brazil's estimated price increase is *vastly exaggerated*. That is, Brazil's estimated 12.6 percent price increase is *6 to 12 times higher* than those found by these independent groups.

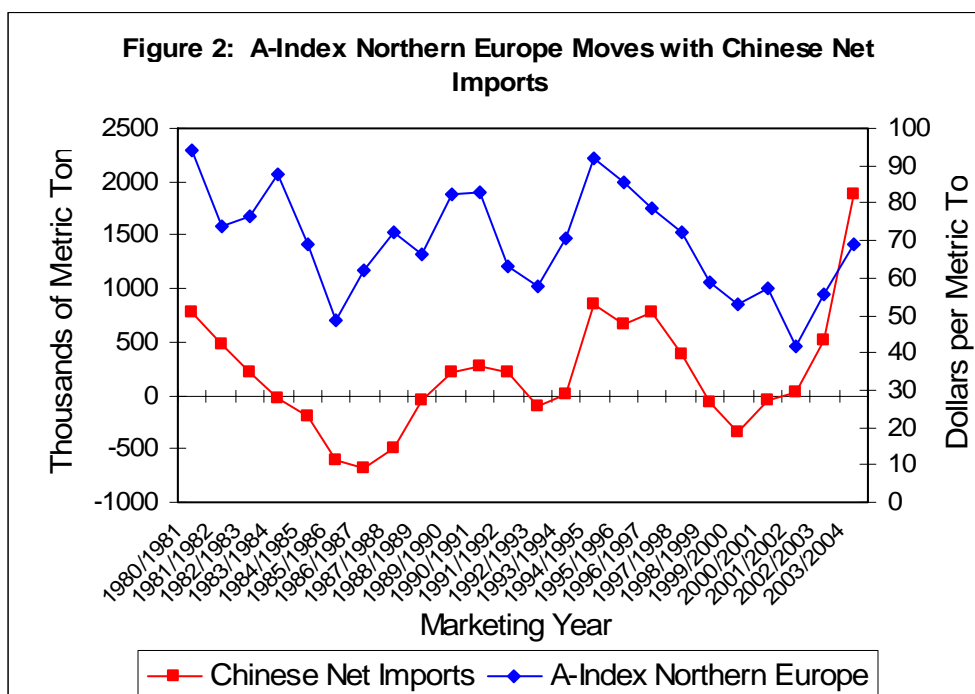
- A 2004 study by Texas Tech University found the removal of certain U.S. programs would result in price changes of *less than 1 percent* in the long run.

- A 2004 study by the Food and Agricultural Organization (FAO) of the United Nations estimated that the removal of all subsidies and tariffs for cotton worldwide would result in just a 3.1 percent increase in cotton prices. The impact of removing certain U.S. programs alone, which accounted for approximately two-thirds of the payments modeled, would therefore be *approximately 2 percent* (two-thirds of 3.1 percent).
- A 2003 IMF study found that the elimination of certain U.S. programs would result in a 2 percent change in cotton prices.

The United States disagrees with important conceptual and methodological aspects of these three studies, such as the way certain payments are incorporated in the models. But it's worth noting that even these studies suggest that, at current prices, the impact of U.S. farm programs on cotton prices is on the order of *half a cent to 1 cent per pound* – hardly a significant amount. Thus, these studies support the U.S. position that U.S. farm programs have not caused recent low cotton prices.

Fact Rebutting Myth 1: High Correlation between Chinese Net Import Levels and Price Movements

If U.S. support for cotton farmers has not driven cotton prices down, why were prices so low between 1999-2002? One of the most important factors to consider is the role China plays in world cotton markets. China is currently the largest producer and user of raw cotton. As Figure 2 demonstrates, price trends as represented by the A-index Northern Europe (an industry benchmark) are highly correlated to China's net imports of cotton.



Generally, when China is increasing its imports or decreasing its exports, cotton prices go up, but when China is decreasing its imports or even exporting cotton, cotton prices fall. This fact, which impacts everyone involved in cotton markets, is completely independent of U.S. farm programs.

MYTH 2: U.S. Support to Cotton Farmers Has Driven Up U.S. Production and Exports at the Expense of Foreign Competitors

REALITY: The U.S. Share of World Cotton Production and World Cotton Markets Has Remained Stable and Even Decreased Recently

Fact Rebutting Myth 2: The U.S. share of world cotton production has been stable even though U.S. cotton support has allegedly increased

Critics allege that, because U.S. cotton production increased between 1999 and 2001 at the same time that prices were falling, this must have been the result of U.S. farm programs. However, these critics neglect to point out that the U.S. share of world cotton production did not change much over that same period, hovering around 20 percent, and has even decreased since 2001. Thus, the facts don't support the assertion that U.S. cotton farmers have expanded production any differently than their competitors in other countries.

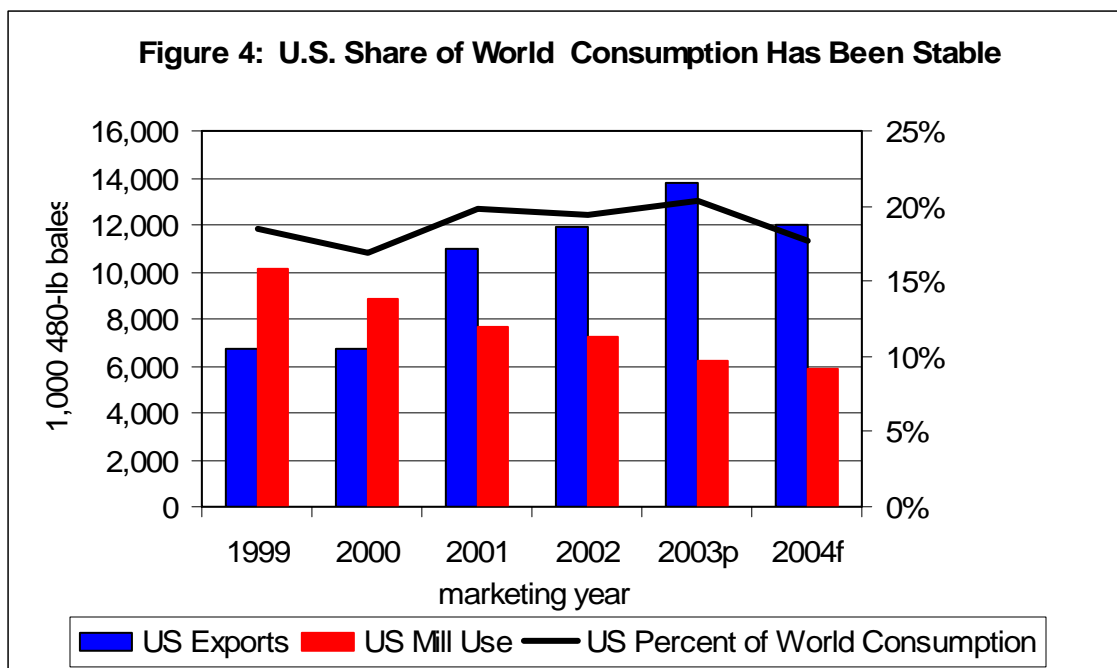
As Figure 3 shows, the U.S. share of world cotton production has remained relatively stable, suggesting that increases and decreases in U.S. cotton production have mirrored similar increases and decreases in cotton production in the rest of the world.



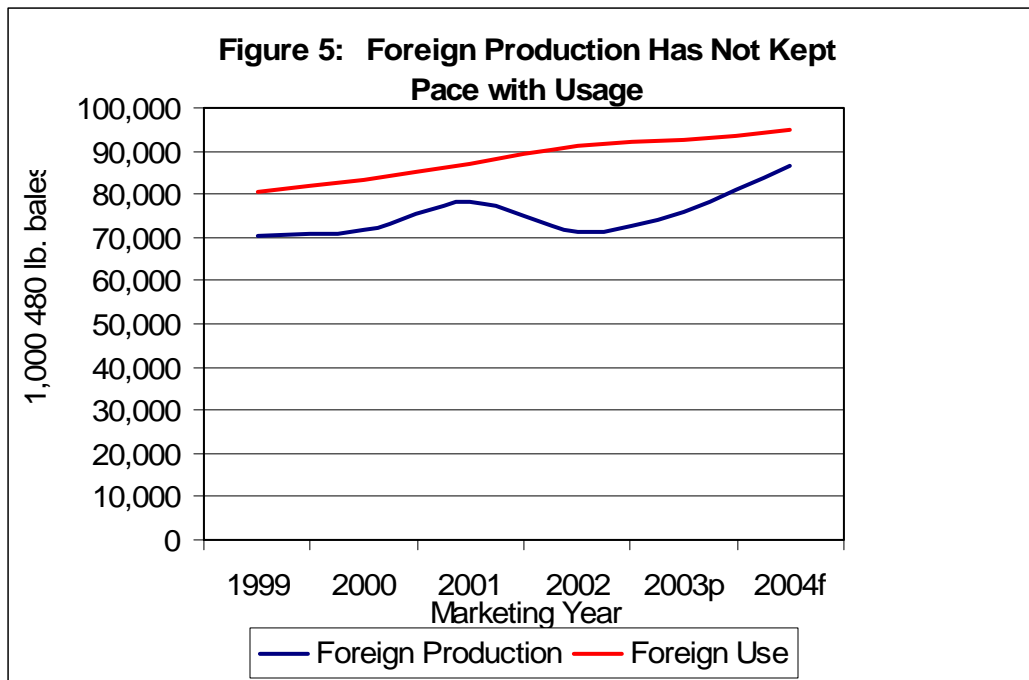
Fact Rebutting Myth 2: The share of world cotton consumption sourced from U.S. cotton has remained stable and even declined in recent years when U.S. exports have increased

Critics have also argued that rising U.S. exports in recent years must mean that U.S. farm programs are stimulating production, which leads to exports. As shown above, however, the U.S. share of world cotton production has *not* increased. So how can U.S. exports be increasing while the U.S. share of world cotton production remains the same?

The answer is simple: as U.S. domestic mill consumption of cotton has declined in recent years, more U.S. cotton has been available for export and has been exported. U.S. production hasn't changed, only the place in which that cotton is consumed. Figure 4 clearly shows that, as U.S. exports have increased (the blue bars), domestic mill consumption has decreased (the red bars).



Put another way, if you look at total world consumption of cotton, the share of that use that is sourced from U.S. cotton (the black line in Figure 4) has remained around 19 percent in recent years. In fact, it actually *declined* between 2001 and 2004, precisely those years when U.S. exports were highest. Thus, U.S. exports were *not* expanding at the expense of foreign competitors. As Figure 5 demonstrates, foreign production has not kept pace with foreign cotton use. So, foreign countries have needed additional cotton, leading to higher U.S. exports.



MYTH 3: U.S. Support to Cotton Farmers Has Insulated U.S. Farmers from Market Price Signals

REALITY: U.S. Cotton Farmers Have Reacted to Market Conditions Just As Their Competitors in the Rest of the World Have

Critics also argue that the effect of U.S. farm programs is to insulate U.S. cotton farmers from market forces. We've already seen that the U.S. share of world cotton production and world cotton consumption has not only not increased in recent years but actually declined between 2001 and 2004. Thus, U.S. farmers are increasing and decreasing cotton production much like the rest of the world.

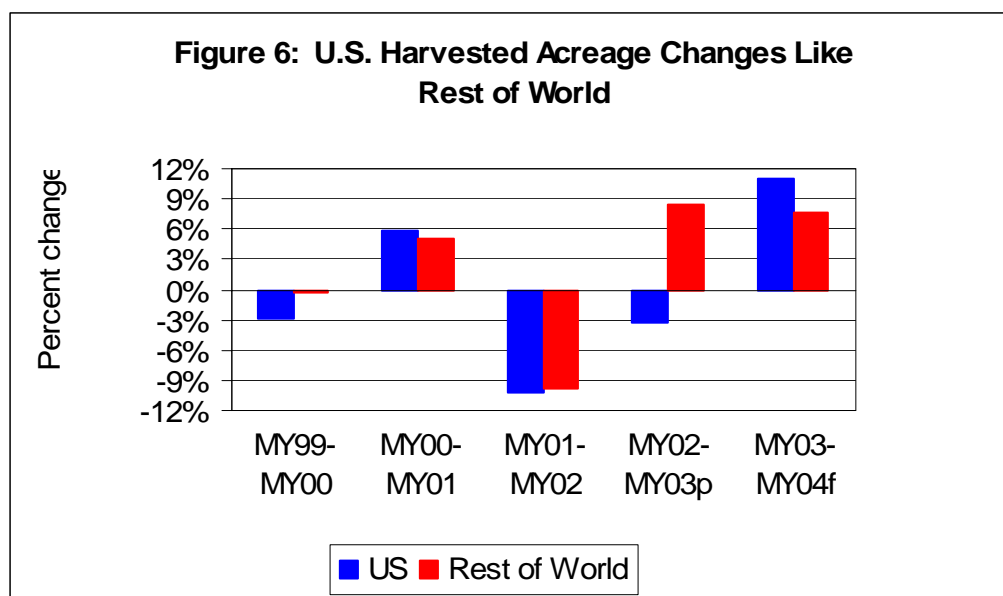
Because production is affected by weather and other conditions that impact crop yields, an even better way to demonstrate that U.S. farm programs have not insulated U.S. cotton farmers from market forces is to look at cotton acreage. The facts demonstrate that (1) U.S. cotton acreage increases and decreases just like the rest of the world and (2) U.S. cotton acreage does respond to market price signals.

Fact Rebutting Myth 3: U.S. farmers change cotton acreage like farmers in the rest of the world

If U.S. farm programs insulated U.S. cotton farmers from market forces, the change in U.S. cotton acreage from year to year would look very different from the change in cotton acreage in the rest of the world. Indeed, when critics argue that U.S. cotton acreage and production expanded during a time of low prices (1999-2001), hurting producers in other countries,

implicitly, these critics are suggesting that foreign growers must have been acting differently. The facts are, however, that U.S. producers have increased and decreased acreage commensurately with producers in the rest of the world.

Figure 6 clearly shows that U.S. cotton farmers have increased and decreased harvested acreage commensurately with producers in the rest of the world. From 2002 to 2003, the one time U.S. and foreign farmers changed acreage differently, it was U.S. cotton farmers who *decreased* their cotton acreage while foreign producers *expanded* theirs, suggesting that, if anyone, it's not U.S. farmers who have been putting downward pressure on prices. Thus, unless foreign producers are *themselves* insulated from market price movements, the acreage data reveal that U.S. farmers respond to market price signals just as farmers in the rest of the world do. Further, if producers in most of those countries are not "subsidized" – as critics claim – then the acreage data suggest that U.S. farm programs are not distorting U.S. cotton farmers' production decisions.



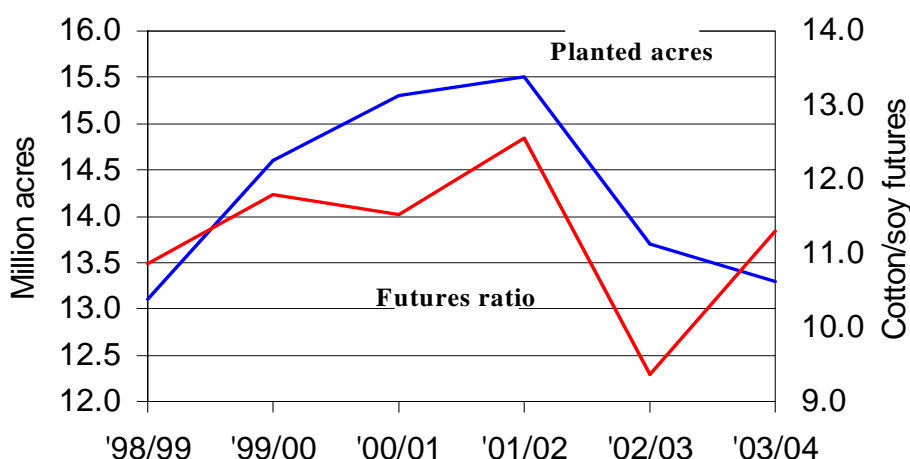
Fact Rebutting Myth 3: U.S. farmers are responding to expected market prices at time of planting

Since U.S. and foreign producers are increasing and decreasing acreage similarly, year after year, the real question for Brazil and others to ask is: what accounts for the increase in U.S. (and other countries') acreage in those years, like marketing year 2001, when prices were so low? The answer lies in the fact that cotton *farmers plant in the spring based on what they expect prices to be in the fall* when they harvest the crop. Since farmers don't know, when they make planting decisions, what harvest-season prices will *actually* be, they rely on expected prices reflected in futures markets. In several recent years (like marketing year 2001) when harvest-season prices were low, the expected price for cotton when farmers were making their planting decisions in the

spring was relatively higher than the expected price for other alternative crops, such as soybeans. So, for many farmers, cotton was expected to be the more profitable crop to plant.

Figure 7 makes the point by plotting both U.S. planted acreage for upland cotton and the ratio of cotton to soybeans futures prices.¹ Because soybeans are a main competing crop to cotton in many U.S. states, this ratio is a simple way of estimating the relative attractiveness of planting cotton. The figure demonstrates that in years when U.S. cotton planted acreage was higher (1999-2001), *cotton was relatively more attractive to plant than soybeans*. In years when the cotton to soybeans futures ratio was lower (like 2002 and 2003), U.S. cotton acreage fell below 1999-2001 levels.

Figure 7: U.S. Cotton Planting Reflects Expected Prices



The futures data show that farmers planted cotton in the spring of 1999, 2000, and 2001 expecting relatively higher cotton prices compared to competing crops. By the time of harvest in the fall of those years, they actually got low or very low prices. But that doesn't mean planting cotton wasn't the rational business decision; *at the time of planting, futures prices indicated that planting cotton was the right choice*. In fact, as we saw above, any mistake in planting cotton in 1999-2001 was one made by farmers all around the world based on the same futures price information.

MYTH 4: Large Government Payments to U.S. Cotton Farmers Must Have Distorted Trade and Caused Low Prices

¹ The futures prices used are the January-March average for December cotton and November soybeans futures contracts. Planting decisions are generally taken in the January-March period. December futures prices for cotton and November futures prices for soybeans show what the market expects prices to be when the crop is harvested and brought to market.

REALITY: The Data Do not Show that U.S. Farm Programs Insulate Farmers from Market Forces

Critics point to significant government payments to U.S. cotton farmers in recent years and ask: how can the United States provide so much money and *not* increase U.S. cotton production and exports, depressing cotton prices? But the data show that U.S. farmers have reacted to expected market prices by making the same planting decisions their competitors have. Therefore, the mere fact that U.S. farmers have received government payments *cannot* mean that those payments must have had significant effects on U.S. production and effects on prices in world cotton markets.

In fact, the payments to U.S. cotton farmers that Brazil and other critics complain about were expressly designed *not* to have significant production and price effects. For example, the United States extensively reformed its farm programs in the 1996 farm bill, and the 2002 farm bill introduced substantially similar programs. A key part of those reforms was to eliminate traditional payments with high levels of support tied to current production of cotton. In their place, new payments not tied to current production of cotton were introduced.

The data presented above show that these reforms have worked. U.S. cotton farmers have responded to expected market prices when planting cotton. Indeed, they have reacted much as their competitors in the rest of the world have, with U.S. and foreign cotton acreage increasing and decreasing similarly. What's more, U.S. cotton production as a share of world production and U.S. cotton's share of world cotton markets have remained stable, and even declined in recent years. Therefore, the myth that U.S. farm programs *must* have distorted production and trade, depressing prices in world cotton markets, is just that, a myth not supported by the facts. Rather, U.S. farm programs have operated as designed, supporting farmers' incomes while allowing them to react to market signals.

Sources for Data in Figures

Figure 1: Agricultural Marketing Services, USDA. *Cotton Price Statistics 2003-2004 Annual Report*, vol 85, no. 13. August 2004
(http://www.ams.usda.gov/cottonrpts/MNPDF/mp_cn830.PDF).

Figure 2: Cotlook, A-Index Northern Europe.
Foreign Agricultural Service, USDA. Production, Supply and Distribution Database (<http://www.fas.usda.gov/psd/>).

Figures 3-6: Foreign Agricultural Service, USDA. Production, Supply and Distribution Database (<http://www.fas.usda.gov/psd/>).

Figure 7: Cotton futures: New York Board of Trade (<http://www.nybot.com/cotton/>)
Soybeans futures: Chicago Board of Trade (<http://www.cbot.com>)
Planted acreage: National Agricultural Statistics Service, USDA
(<http://usda.mannlib.cornell.edu/reports/nassr/field/pcp-bba/>).

Note: In figures, “p” indicates preliminary and “f” indicates forecast