

**PRODUCTION AND  
TRADE POLICIES  
AFFECTING THE  
COTTON INDUSTRY**

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INTERNATIONAL  
COTTON  
ADVISORY  
COMMITTEE

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Washington D.C.

July 2002

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July 2002

A Report by the  
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International Cotton Advisory Committee



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# PRODUCTION AND TRADE POLICIES AFFECTING THE COTTON INDUSTRY

## Introduction

The Secretariat was instructed by member governments at the 57<sup>th</sup> Plenary Meeting in 1999 to carry out an annual study documenting government measures affecting cotton production, ginning and trade. The purpose of the study is to facilitate discussion of the subject within the ICAC.

The Secretariat has compiled and produced documents on government regulations periodically since 1958. To this end, the Secretariat has relied over time on annual surveys of member countries. The last document before 1999, published in 1991, reviewed barriers to trade in cotton and cotton textiles. The 1991 document summarized information on duties, taxes, subsidies, and quantitative and administrative restrictions on cotton lint and cotton yarn and fabrics.

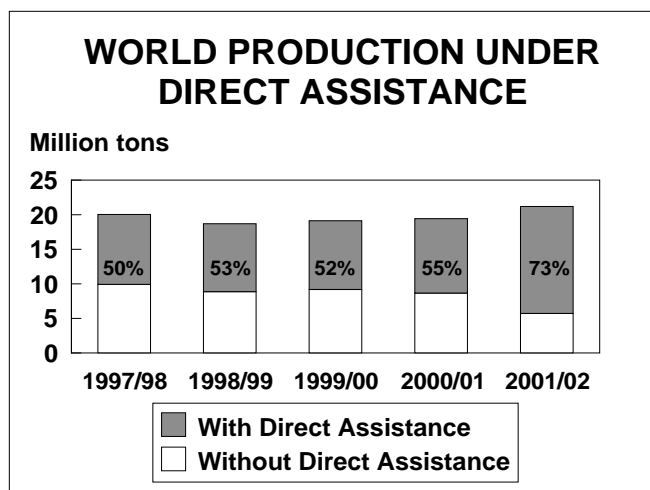
The trend over the last 40 years has been toward a lowering of tariff barriers on cotton lint. While in 1958 a number of countries imposed significant duties on imports of cotton lint, many of these duties were eliminated by 1991. For instance, among the countries that export cotton lint, duties in Argentina, Colombia, Greece, Mexico, Pakistan and Turkey that ranged between 5% and 150% in 1958 were reduced to zero by 1991. Some of these countries restored duties to cotton lint in the following years, but the new duties were at far lower levels than in the past. In importing countries, duties that ranged between 6% and 12.5% in 1958 in China (Taiwan), Italy, and the Republic of Korea were eliminated by 1991.

Countries did not often report export subsidies, but many countries had them in place between 1958 and 1991. During the 1990s, however, as a result of the advancement of trade negotiations under the Uruguay Round of the GATT, export subsidies were discontinued in many developing cotton-exporting countries. This study suggests that direct export subsidies have been in place in two countries in the period since 1997/98.

Production subsidies remained virtually unchanged between 1958 and 1991. In a 1986 report, 13 countries reported having production subsidies in the form of price or income programs. During the 1990s, income and price support programs were discontinued in several developing countries. This study suggests that direct income or price support programs were in place in eight countries between 1997/98 and 2000/01 and that in 2001/02 fourteen countries offered direct income or price support programs.

## Production Policies

Low international prices this season are causing governments to increase their assistance to cotton growers. Government assistance in the eight countries that have supported cotton growers in recent years [Brazil, China (Mainland), Egypt, Greece, Mexico, Spain, Turkey, and the USA) is increasing by an estimated \$530 million to \$4.4 billion this season. In addition, six countries (Argentina, Benin, Colombia, Côte d'Ivoire, India and Mali) are offering provisional emergency assistance of \$560 million in 2001/02.



The level of direct assistance to production provided by governments worldwide declined from \$4.8 billion in 1999/00 to \$3.8 billion in 2000/01, but assistance is increasing to \$4.9 billion in 2001/02. Subsidies this season are ranging from an estimated \$7 million provided by Argentina to \$2.3 billion provided by the USA. Assistance per pound of lint in 2001/02 is estimated to range from 76 cents per pound in Spain to 2 U.S. cents per pound in Côte d'Ivoire.

Production estimates and additional information gathered by the Secretariat suggest that

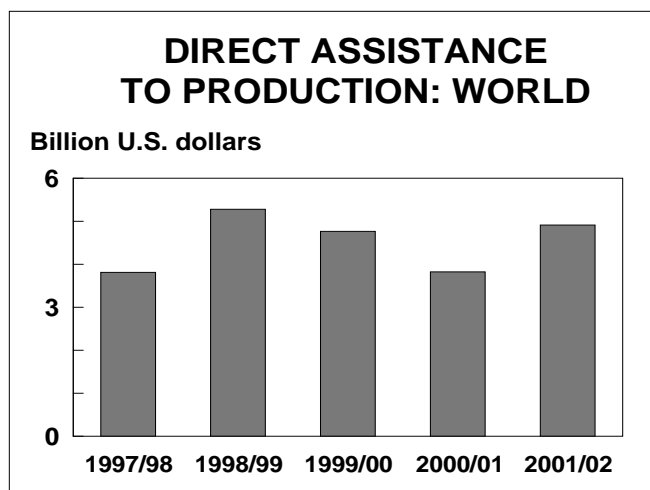
73% of world cotton production is benefiting in 2001/02 from direct income or price support programs, 18 percentage points more than in 2000/01. The share of world production in the eight countries that provided assistance in 2000/01 increased from 56% last season to 58% in 2001/02.

Over the last four seasons, the largest government expenditures to assist cotton growers were paid in China (Mainland) and the USA, as these countries are also the largest producers.

Direct assistance to cotton growers in the USA increased from \$600 million in 1997/98 to 2.7 billion the following year and \$2 billion in 1999/00. Assistance declined to \$1 billion in 2000/01. This season, the U.S. government is spending an estimated \$2.3 billion in direct assistance. This is the last year of a support program implemented in 1996. Under this program, a typical U.S. grower is provided assistance through two mechanisms, a Loan Deficiency Payment (calculated each week as the difference between an average loan rate and an Adjusted World Price) and a Production Flexibility Contract Payment (a fixed payment to compensate growers for the loss of previous assistance linked to prices). The U.S. government provides other forms of assistance to growers including export credit guarantees, assistance to exporters and domestic consumers and the government funds research and promotion programs. Total Loan Deficiency

Payments for 2001/02 are estimated at \$1.8 billion and the flexibility payment provided to growers is estimated at \$452 million. Cotton growers in the U.S are expected to receive a total of \$3.7 billion in government subsidies in 2001/02, \$300 million less than in 2000/01, as it is estimated that lower additional payments under the PFCP (which include disaster relief) will be partially offset by increases in Loan Deficiency Payments.

A new farm bill to take effect in 2002/03 was recently approved in the USA. The new bill



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brings back the concept of a target price, which is set at 72.4 U.S. cents per pound. The government will pay the difference between the target price and the loan rate set at 52 cents, which includes a fixed direct payment of 6.7 cents. However, payments will be based on past production, not current production. Payments per farmer will be limited to \$360,000. Other provisions will be maintained, and export subsidies will no longer be subject to a 1.25 cents-per-pound deduction.

In China (Mainland), new policies enacted in 1999 allow domestic cotton prices to be influenced by market factors. The government still sets a reference price for cotton. Nonetheless, actual prices are now negotiated between buyers and sellers and can go below or above the reference price. For 2000/01, the government of China (Mainland), with a policy of stock reduction, maintained domestic prices well above international prices, and government expenditures assisting growers are calculated at \$1.9 billion. Domestic prices in China (Mainland) have declined more rapidly than international prices this season, and it is expected that assistance in 2001/02 could decline to \$1.2 billion. China (Mainland) also offers assistance to exporters.

In Greece and Spain, growers obtain assistance through the Common Agricultural Policy of the European Union. Support payments are made to ginnery who are required to pass the subsidy in the form of higher prices to growers. Advance payments are based on estimates of seedcotton production and the difference between market prices and a published guide price. The policy also influences the quantity of cotton produced by a maximum guaranteed quantity of seedcotton for which assistance is provided. The maximum guaranteed quantity is 782,000 tons of seedcotton for Greece and 249,000 tons for Spain. The cotton growing regions of Greece and Spain are among the lowest-income regions in the EU, and income support is viewed as a form of economic assistance. Total direct assistance offered by the EU was \$716 million in 2000/01 and is estimated at about the same level in 2001/02.

Government support programs in Egypt, which amounted to about \$300 million a year, were discontinued in 1999/00. Nonetheless, as world prices declined in 1999/00, the government disbursed \$20 million in order to pay for the difference between selling and purchase prices. In 2000/01 and 2001/02, the government provided \$23 million a year.

Turkish growers are entitled to a premium payment calculated on the basis of seedcotton deliveries to either cooperatives or private gins. The Turkish government provided no assistance in 1997/98. However, \$220 million was spent in 1998/99, \$287 million in 1999/00 and \$106 million for 2000/01. Government support is estimated at \$59 million in 2001/02, as the premium was lowered from 9 cents to 5 U.S. cents per kilogram of seedcotton this season.

In Mexico, despite the fact that there is a support program in place, the government must approve a budget every year to fund the program. Since 1997/98 government expenditures to fund direct assistance to cotton growers fluctuated between \$13 and \$28 million. In 2000/01 and 2001/02, assistance has been provided at a rate of \$194 per hectare and is estimated to amount to \$18 million this season.

In Brazil, although the government sets a minimum guaranteed price, there is no automatic budgetary allocation to allow direct purchases by the government. Due to low prices in recent seasons the government designed a mechanism to secure prices to farmers above minimum

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prices through options exercised by farmers. Funding for this mechanism is approved each season as needed. It is estimated that the government is providing \$50 million in 2001/02.

### **Other Countries**

Average international prices have been below 60 cents per pound for the fourth consecutive season. The average of the last 25 years was 72.5 cents, which used to be considered an equilibrium price for the cotton market. Normally, when prices decline below the long-term average, production declines. In 1992/93, season average international prices, as measured by the Cotlook A Index, declined to 58 cents, and the following year world production declined to just below 17 million tons. In contrast, world production increased from 18.7 million tons in 1998/99 to 19.1 million tons in 1999/00 and to 19.4 million tons in 2000/01. Area dedicated to cotton production in countries that do not provide direct subsidies to growers declined from 21.7 million hectares in 1998/99 to 20.2 million in 2000/01. However, area dedicated to cotton in countries that provide direct subsidies to growers increased from 11.1 million hectares in 1998/99 to 11.6 million in 2000/01. Further, the continued very low level of prices over four seasons has bankrupt many producers in developing countries and threatens to increase the unemployed population in urban areas, as dispossessed cotton growers migrate to cities. In an effort to contain migration of farmers some governments have developed emergency programs aimed at maintaining farmers on their land.

The government of Argentina pledged in mid-May 2001 to provide up to \$100 per hectare to farmers producing cotton and other crops. Nonetheless, as the country is currently registering an economic crisis, the Argentinean government has only disbursed \$7 million for the 2001/02 crop.

Similarly, under the same circumstances as in Argentina, the government of Colombia offered a support price of 64 U.S. cents per pound on the basis of domestic prices calculated to be 48 U.S. cents per pound. As a result, it is expected that government support in Colombia will be \$12 million in 2001/02.

In India, the government announces a Minimum Support Price (MSP) each year to ensure sustained interests of farmers in cotton cultivation. In 2001/02, domestic cotton prices, which move with international prices, fell below the MSP for the first time since the mid-1980s. Consequently, the government increased its expenditures by \$500 million to support growers.

Finally, West African growers have also felt the decline in international cotton prices. In Benin, the government is providing 5 cents per pound this season for a total disbursement of \$20 million. In Mali, where production fell by 50% in 2000/01, the government is providing \$13.5 million in support this season, equivalent to 2.5 cents per pound. Similarly in Côte d'Ivoire, the government is providing \$8 million, equivalent to 2.2 cents per pound.

### **Direct Assistance to Exports**

Only two countries, China (Mainland) and the USA, provide subsidies to exports of cotton. Overall assistance provided by these two countries amounted to US\$285 million in 1999/00, declined to US\$113 million in 2000/01, but is estimated to increase to US\$144 million in 2001/

02. Exports are subsidized in China (Mainland) through direct payments made by the central government to exporting agencies. The direct payments are designed to bridge the difference between international market prices and the internal cost of buying, ginning and transporting cotton to an export location. Assistance in the USA averaged 5.6 cents per pound in 1999/00 and 2.6 cents per pound in 2000/01.

### A Measure of the Impact of Subsidies on Prices

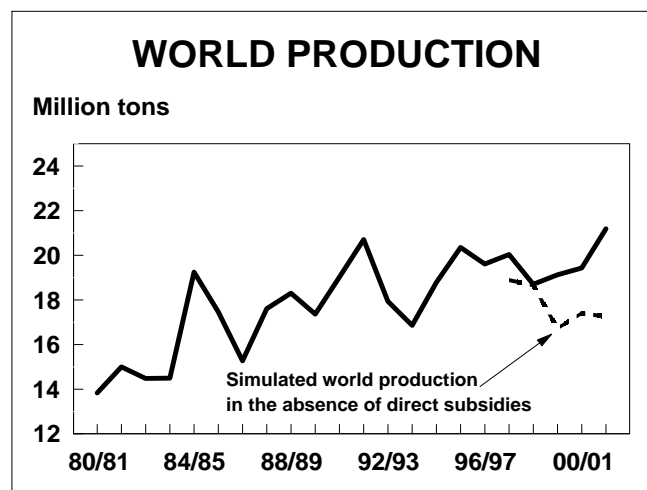
It is certain that a removal of subsidies would result in lower production and, thus, higher prices in the short term, but such an impact would be offset, either partially or totally, by shifting world production to non-subsidizing countries in the medium and long terms. Similarly, higher prices would reduce the growth of cotton consumption.

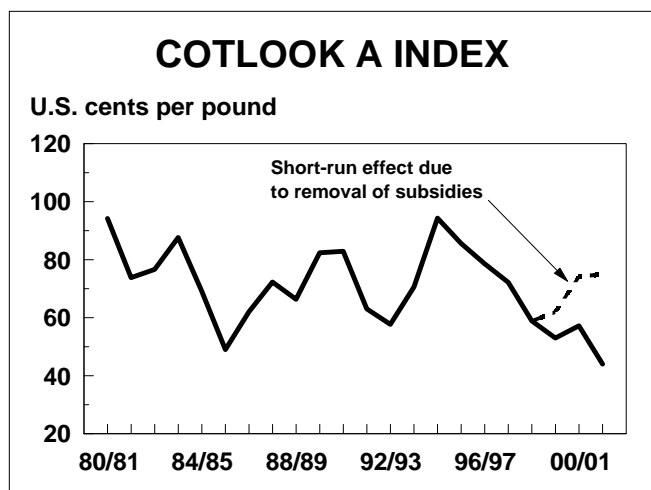
Since no model is likely to capture all of the effects of a removal of subsidies, some assumptions have to be made. First, a joint study by FAO and ICAC suggests the price supply elasticity for a number of countries, but the elasticity for the USA is the only one with a good degree of accuracy. Second, demand response to higher prices resulting from a removal of subsidies can be measured by the price demand elasticity provided by the ICAC World Textile Demand Model. Third, a measurement of the response of other countries to higher prices resulting from a removal of subsidies has to be assumed. Further, if only the impact of U.S. subsidies is to be simulated, a reasonable measure of potential U.S. production without subsidies has to be assumed.

In an effort to explore the likely impact of a removal of U.S. subsidies it was assumed that given the historically high international prices in 1994/95, U.S. production that season is a good measure of the potential production without subsidies. An elasticity of supply with respect to price (0.47) for the following years was applied to production, which resulted in an estimated 2.8 million tons of cotton production in 1999/00, 900,000 tons lower than actual production, and 3 million tons estimated for 2000/01 and 2001/02, 700,000 tons less than actual production in 2000/01 and 1.4 million tons less than the actual in 2001/02. When applied to the ICAC Price Model, the decline in U.S. production would result in average international cotton prices 6 cents higher than realized in 1999/00, 12 cents higher than expected in 2000/01 and 22 cents higher in 2001/02.

Higher prices would have an impact upon demand for cotton. The ICAC World Textile Model suggests that a 20% increase in cotton prices would result in a 1% decline in world demand for cotton. The resulting levels of demand were applied to the price model suggesting that lower levels of demand would lessen the initial impact by 1 cent in 1999/00, 2 cents in 2000/01 and 6 cents in 2001/02.

There is no doubt that with higher prices production in non-subsidizing countries would





increase. However, there is no measure to assess the impact. With relatively high prices (above the long-term average of 72.5 cents), area dedicated to cotton in non-subsidizing countries increased to 22 million hectares in 1998/99. Area declined to 20.7 million hectares in 1999/00. If prices had been 6 cents higher in 1998/99, the price decline would have been only half compared to 1997/98 and thus it is reasonable to expect that area would have declined just by half. Such a response would offset half of the production decline that would have resulted from an elimina-

tion of subsidies in the U.S. As a result, the impact of a removal of U.S. subsidies would have an estimated net positive effect of 3 cents on average cotton prices in 1999/00, 6 cents in 2000/01 and 11 cents in 2001/02.

If it were assumed that subsidized production in all countries would respond as in the theoretical exercise for the U.S., the impact of a removal of direct subsidies worldwide would have an estimated net positive effect of 17 cents on average cotton prices in 2000/01 and 31 cents in 2001/02.

It was assumed that lower production in China (Mainland) resulting from the elimination of subsidies would be offset by more rapid declines in stocks. However, by 2001/02 stocks in China (Mainland) would be relatively low (less than 1 million tons and the lowest in 20 years) and higher imports of cotton were assumed equal to the full amount of the production loss.

It is reasonable to expect that a removal of subsidies would result in less variation in year-to-year season average prices, but little effect would take place in the long-term as production would shift to other countries.

**Level of Assistance Provided by Governments to  
the Cotton Sector Through Production Programs \***

| Country          | 1997/98    |                                       |                          | 1998/99    |                                       |                          |
|------------------|------------|---------------------------------------|--------------------------|------------|---------------------------------------|--------------------------|
|                  | Production | Average Assistance per Pound Produced | Assistance to Production | Production | Average Assistance per Pound Produced | Assistance to Production |
|                  | 1,000 tons | US cents                              | US\$ Millions            | 1,000 tons | US cents                              | US\$ Millions            |
| USA              | 4092       | 7                                     | 597                      | 3030       | 22                                    | 1480                     |
| China (Mainland) | 4602       | 20                                    | 2013                     | 4501       | 27                                    | 2648                     |
| Greece           | 340        | 88                                    | 659                      | 357        | 84                                    | 660                      |
| Spain            | 116        | 83                                    | 211                      | 104        | 89                                    | 204                      |
| Turkey           |            |                                       |                          | 871        | 11                                    | 220                      |
| Brazil           | 412        | 3                                     | 29                       | 521        | 5                                     | 52                       |
| Egypt            | 342        | 38                                    | 290                      |            |                                       |                          |
| Mexico           | 209        | 3                                     | 13                       | 219        | 3                                     | 15                       |
| India            |            |                                       |                          |            |                                       |                          |
| Benin            |            |                                       |                          |            |                                       |                          |
| Mali             |            |                                       |                          |            |                                       |                          |
| Colombia         |            |                                       |                          |            |                                       |                          |
| Côte d'Ivoire    |            |                                       |                          |            |                                       |                          |
| Argentina        |            |                                       |                          |            |                                       |                          |
| All Countries    | 10113      | 17                                    | 3812                     | 9603       | 25                                    | 5279                     |

| Country          | 1999/00    |                                       |                          | 2000/01    |                                       |                          |
|------------------|------------|---------------------------------------|--------------------------|------------|---------------------------------------|--------------------------|
|                  | Production | Average Assistance per Pound Produced | Assistance to Production | Production | Average Assistance per Pound Produced | Assistance to Production |
|                  | 1,000 tons | US cents                              | US\$ Millions            | 1,000 tons | US cents                              | US\$ Millions            |
| USA              | 3694       | 25                                    | 2056                     | 3742       | 12                                    | 1020                     |
| China (Mainland) | 3829       | 18                                    | 1534                     | 4420       | 20                                    | 1900                     |
| Greece           | 435        | 62                                    | 596                      | 421        | 58                                    | 537                      |
| Spain            | 132        | 68                                    | 199                      | 94         | 86                                    | 179                      |
| Turkey           | 791        | 16                                    | 287                      | 880        | 5                                     | 106                      |
| Brazil           | 700        | 3                                     | 44                       | 939        | 2                                     | 44                       |
| Egypt            | 233        | 4                                     | 20                       | 210        | 5                                     | 23                       |
| Mexico           | 135        | 9                                     | 28                       | 72         | 9                                     | 14                       |
| India            |            |                                       |                          |            |                                       |                          |
| Benin            |            |                                       |                          |            |                                       |                          |
| Mali             |            |                                       |                          |            |                                       |                          |
| Colombia         |            |                                       |                          |            |                                       |                          |
| Côte d'Ivoire    |            |                                       |                          |            |                                       |                          |
| Argentina        |            |                                       |                          |            |                                       |                          |
| All Countries    | 9949       | 22                                    | 4764                     | 10778      | 16                                    | 3822                     |

**Level of Assistance Provided by Governments to  
the Cotton Sector Through Production Programs \* (continued)**

| Country              | 2001/02 **   |   |                             |
|----------------------|--------------|---|-----------------------------|
|                      | Production   | Average Assistance<br>per Pound<br>Produced | Assistance to<br>Production |
|                      | 1,000 tons   | US cents                                    | US\$ Millions               |
| USA                  | 4421         | 24  | 2291                        |
| China (Mainland)     | 5320         | 10  | 1196                        |
| Greece               | 410          | 59  | 537                         |
| Spain                | 107          | 76  | 179                         |
| Turkey               | 901          | 3   | 59                          |
| Brazil               | 750          | 3   | 50                          |
| Egypt                | 314          | 3   | 23                          |
| Mexico               | 92           | 9   | 18                          |
| India                | 2475         | 9   | 500                         |
| Benin                | 179          | 5   | 20                          |
| Mali                 | 242          | 3   | 14                          |
| Colombia             | 33           | 16  | 12                          |
| Côte d'Ivoire        | 163          | 2   | 8                           |
| Argentina            | 74           | 4   | 7                           |
| <b>All Countries</b> | <b>15481</b> | <b>14</b>                                   | <b>4913</b>                 |

\* Income and price support programs only. Credit and other assistance not included.

\*\* Preliminary.

**Level of Assistance Provided by Governments to  
the Cotton Sector Through Export Programs**

| Country              | 1997/98     |   |                          | 1998/99     |   |                          |
|----------------------|-------------|---|--------------------------|-------------|---|--------------------------|
|                      | Exports     | Average Assistance<br>per Pound<br>Exported | Assistance to<br>Exports | Exports     | Average Assistance<br>per Pound<br>Exported | Assistance to<br>Exports |
|                      | 1,000 tons  | US cents                                    | US\$ Millions            | 1,000 tons  | US cents                                    | US\$ Millions            |
| USA                  | 1633        | 4   | 156                      | 946         | 6   | 116                      |
| China (Mainland)     | 6           | 10  | 1                        | 148         | 13  | 42                       |
| <b>All Countries</b> | <b>1639</b> | <b>4</b>                                    | <b>157</b>               | <b>1094</b> | <b>7</b>                                    | <b>158</b>               |

**Level of Assistance Provided by Governments to  
the Cotton Sector Through Export Programs (continued)**

| Country          | 1999/00    |                                       |                       | 2000/01    |                                       |                       |
|------------------|------------|---------------------------------------|-----------------------|------------|---------------------------------------|-----------------------|
|                  | Exports    | Average Assistance per Pound Exported | Assistance to Exports | Exports    | Average Assistance per Pound Exported | Assistance to Exports |
|                  | 1,000 tons | US cents                              | US\$ Millions         | 1,000 tons | US cents                              | US\$ Millions         |
| USA              | 1470       | 6                                     | 180                   | 1472       | 3                                     | 85                    |
| China (Mainland) | 368        | 13                                    | 106                   | 96         | 13                                    | 28                    |
| All Countries    | 1838       | 7                                     | 286                   | 1568       | 3                                     | 113                   |

| Country          | 2001/02    |                                       |                       |
|------------------|------------|---------------------------------------|-----------------------|
|                  | Exports    | Average Assistance per Pound Exported | Assistance to Exports |
|                  | 1,000 tons | US cents                              | US\$ Millions         |
| USA              | 2256       | 3                                     | 130                   |
| China (Mainland) | 50         | 13                                    | 14                    |
| All Countries    | 2306       | 3                                     | 144                   |

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