

COTTON COMBER WASTE

Report to the President on
Investigation No. 22-51
Under Section 22 of the
Agricultural Adjustment
Act, as Amended



USITC PUBLICATION 2334

NOVEMBER 1990

United States International Trade Commission
Washington, DC 20436

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

Anne E. Brunsdale, Chairman

Ronald A. Cass, Vice Chairman

Alfred E. Eckes

Seeley G. Lodwick

David B. Rohr

Don E. Newquist

Staff assigned:

Valerie Newkirk, Office of Investigations

Mary Elizabeth Enfield, Office of Industries

Rick Rhodes, Office of Industries

Gerald Benedick, Office of Investigations

Laurie Horvitz, Office of the General Counsel

Vera Libeau, Supervisory Investigator

**Address all communications to
Kenneth R. Mason, Secretary to the Commission
United States International Trade Commission
Washington, DC 20436**

C O N T E N T S

	<u>Page</u>
Findings and recommendations of the Commission.....	1
Views of the Commission.....	3
Recommendations and additional findings of Commissioner Eckes, Commissioner Lodwick, and Commissioner Newquist.....	17
Recommendations and additional findings of Chairman Anne E. Brunsdale and Vice Chairman Ronald A. Cass.....	25
Additional findings and recommendations of Commissioner David B. Rohr.....	37
Information obtained in the investigation.....	A-1
Introduction.....	A-1
Background.....	A-2
Cotton price support and production adjustment programs.....	A-6
Acreage reduction program (ARP).....	A-6
Offsetting compliance.....	A-6
Cross compliance.....	A-6
Target price.....	A-7
Nonrecourse loan.....	A-7
Marketing loan.....	A-7
Upland cotton program provisions effective for the 1989/90 crop year.....	A-7
Extra-long-staple (ELS) cotton program effective for the 1989/90 crop year.....	A-8
The product.....	A-10
Description and uses.....	A-10
U.S. tariff treatment.....	A-12
Import duties.....	A-12
Quotas.....	A-12
U.S. producers.....	A-14
The U.S. market.....	A-15
Apparent U.S. consumption.....	A-18
The U.S. industry.....	A-19
U.S. production of cotton comber waste.....	A-19
U.S. producers' domestic shipments and company transfers of cotton comber waste.....	A-21
U.S. exports of cotton comber waste.....	A-23
U.S. producers' end-of-period inventories of cotton comber waste.....	A-24
The world market.....	A-24
U.S. imports.....	A-28
Prices.....	A-28
Questionnaire price data.....	A-29
Price trends.....	A-31
Competing fiber prices.....	A-35
Raw cotton prices.....	A-36
Other fiber prices.....	A-38
Transportation factors.....	A-40
Impact on the USDA cotton programs of a termination or modification of the existing quotas on cotton comber waste.....	A-40
Introduction.....	A-40
Estimates of the impact on the USDA cotton programs of changes to the import quotas on cotton comber waste.....	A-42
Scenario 1.....	A-43
Scenario 2.....	A-44
Additional considerations.....	A-45

CONTENTS

	<u>Page</u>
Appendix A. The President's request.....	B-1
Appendix B. The Commission's <u>Federal Register</u> notice.....	B-3
Appendix C. List of witnesses.....	B-7
Appendix D. Selected textile fibers data.....	B-11
Appendix E. Commission estimates of cotton comber waste produced in the United States and in the rest of the world.....	B-17
Appendix F. End users' views concerning substitutability between cotton comber waste and other products.....	B-25
Appendix G. Assumptions and methodology used to estimate the effects on the USDA cotton programs of a termination or modifi- cation of the existing quotas on cotton comber waste.....	B-27

Tables

1. Upland cotton: Summary of data related to farm programs, 1980/81-89/90.....	A-9
2. Extra-long-staple cotton: Summary of data related to farm programs, 1980/81-89/90.....	A-9
3. Cotton comber waste: Company transfers and domestic shipments by U.S. producers, 1986-88, January-September 1988, and January- September 1989.....	A-22
4. U.S.-produced cotton comber waste: U.S. producers' sales quantities, weighted-average f.o.b. selling prices, and price indexes of product 1, by types of customers and by quarters, January 1986-September 1989.....	A-32
5. U.S.-produced cotton comber waste: U.S. producers' sales quantities, weighted-average f.o.b. selling prices, and price indexes of product 2 sold to waste dealers, by quarters, January 1986-September 1989.....	A-33
6. U.S.-produced cotton comber waste: U.S. purchase quantities, weighted-average purchase prices, and price indexes, by types of suppliers and by quarters, January 1986-September 1989.....	A-34
7. U.S.-produced short-staple cotton: U.S. mill-delivered prices of short-staple cotton (composite offer prices) and price indexes, by quarters, January 1986-September 1989.....	A-37
D-1. Textile fibers: U.S. mill consumption, by selected fibers, 1980-88.....	B-12
D-2. Textile fibers and cotton: U.S. consumption, by end uses, 1980-88.....	B-13
D-3. World consumption of raw cotton, by specified countries, 1980-88...	B-14
D-4. Cotton yarn: Production by selected regions and countries, 1986-89.....	B-16

Figures

1. U.S.-produced short-staple cotton and cotton comber waste: U.S. mill prices of U.S.-produced short-staple cotton and cotton comber waste, by quarters, January 1986-September 1989.....	A-39
--	------

Note.--Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.

**REPORT TO THE PRESIDENT ON
INVESTIGATION NO. 22-51**

Cotton Comber Waste

Findings and recommendations

Commissioner Eckes, Commissioner Lodwick, and Commissioner Newquist find that:

(1) changed circumstances require modification of subcategory (A) of the present quota on cotton comber waste, set forth in subheading 9904.30.50 of the Harmonized Tariff Schedule of the United States (HTS); and

(2) subcategory (A) of the quota may be globalized and the staple length restriction limiting imports under that subcategory to cotton comber waste produced from cotton having a staple length of 1-3/16 inches or more may be eliminated without resulting in cotton comber waste being or practically certain to be imported into the United States under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with, any program of the Department of Agriculture with respect to cotton, or to reduce substantially the amount of any product processed in the United States from cotton.

Chairman Brunsdale and Vice Chairman Cass find that:

(1) the circumstances requiring subcategory (A) of HTS 9904.30.50 no longer exist; and

(2) subcategory (A) may be suspended indefinitely, cotton comber waste may be eliminated from subcategory (B), and the staple length restriction eliminated without resulting in cotton comber waste being or practically certain to be imported into the United States under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with, any program of the Department of Agriculture with respect to cotton, or to reduce substantially the amount of any product processed in the United States from cotton.

Commissioner Rohr finds that:

(1) the circumstances requiring subcategory (A) of HTS 9904.30.50 no longer exist; and circumstances requiring including cotton comber waste within subcategory (B) no longer exist; and

(2) subcategory (A) may be terminated, cotton comber waste may be eliminated from subcategory (B), and the staple length restriction may be eliminated without resulting in cotton comber waste being or practically certain to be imported into the United States under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with, any program of

the Department of Agriculture with respect to cotton, or to reduce substantially the amount of any product processed in the United States from cotton.

Each Commissioner recommends that the President change the quota in a manner consistent with the Commissioner's findings.

Background

On July 25, 1989, the Commission received a letter from the President stating that he had been advised by the Secretary of Agriculture, and that he agreed with the Secretary, that "there is reason to believe that the quota on cotton comber waste, wherever classified in the Harmonized Tariff Schedule of the United States, may need to be terminated or modified because the circumstances requiring the proclamation of such import quota restrictions have changed."

As directed by the President, the Commission instituted investigation No. 22-51 under section 22(d) of the Agricultural Adjustment Act (7 U.S.C. 624(d)) to determine whether the quota on cotton comber waste, as set forth in subheading 9904.30.50 of the HTS, should be terminated or modified, including globalizing country quota allocations, eliminating the staple length restrictions on cotton used to make cotton comber waste, or distinguishing between bleached and unbleached cotton comber waste, or adjusting the quota otherwise to take account of circumstances that have changed since the quota was proclaimed. Notice of the institution of the Commission's investigation and of a hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of August 23, 1989 (54 F.R. 35088). The hearing was held in Washington, DC, on November 28, 1989.

COTTON COMBER WASTE, INV. NO. 22-51
VIEWS OF THE COMMISSION

Introduction

At the request of the President, this investigation was instituted pursuant to section 22(d) of the Agricultural Adjustment Act 1/ by the U.S. International Trade Commission ("Commission") following receipt of a letter from the President on July 25, 1989. In that letter the President stated that "the quota on cotton comber waste, wherever classified in the Harmonized Tariff Schedule of the United States [HTS], may need to be terminated or modified because the circumstances requiring the proclamation of such import quota restrictions have changed." The President asked the Commission whether the existing quota on cotton comber waste, provided for in subheading 9904.30.50 of the HTS, should be "terminated or modified, including globalizing country quota allocations, eliminating the staple length restrictions on cotton used to make cotton comber waste, or distinguishing between bleached and unbleached cotton comber waste, or whether the quota should otherwise be adjusted to take account of circumstances that have changed since the quota was proclaimed." 2/

The quota governing imports of cotton comber waste is divided into two subcategories, both of which are country-specific: (1) subcategory (A)

1/ 7 U.S.C. § 624(d).

2/ The President's letter was responsive to an August 9, 1988 request from the American Paper Institute (API) for review of the cotton comber waste quota. Following receipt of API's request, the U.S. Department of Agriculture (USDA) convened a task force to analyze the request and to prepare a recommendation to the President. As reflected in the President's letter to the Commission, USDA found "reason to believe" that the quota on cotton comber waste may need to be terminated or modified because of changed circumstances.

establishes a minimum quota for cotton comber waste produced from cotton having a staple length of 1-3/16 inches or more; and (2) subcategory (B) establishes an "unreserved quota" for cotton comber waste (derived from cotton of any staple length), certain card strips, lap waste, sliver waste, and roving waste. Neither subcategory differentiates between bleached and unbleached cotton comber waste. The annual quota for subcategory (A) is 1,451,392 kilograms (3,199,770 pounds). This quota subcategory is divided among seven countries. The United Kingdom has 90 percent of the total and France, the Netherlands, Switzerland, Belgium, Germany, and Italy share in the remainder (none exceeding 5 percent of the total). The annual quota for subcategory (B) is 1,035,427 kilograms (2,282,739 pounds), divided among 13 countries. The United Kingdom has 63 percent of this subcategory, Japan has 15 percent, and Canada has 11 percent. The remainder of the quota is allotted to France, India and Pakistan together, the Netherlands, Switzerland, Belgium, China, Egypt, Cuba, Germany, and Italy. 3/

3/ The cotton comber waste quota was established by Presidential proclamation on September 20, 1939 following an investigation by the Commission. According to the Commission's 1939 investigation, stockpiles of U.S.-produced cotton had grown large and exports of U.S. cotton had fallen prior to July of 1939. On July 22, 1939, in response to these market conditions, an export subsidy on cotton lint and certain types of cotton wastes, including cotton comber waste, was announced. This subsidy resulted in higher cotton prices in the U.S. market than in foreign markets. Following the imposition of the export subsidy, imports were found to be displacing U.S. cotton in U.S. consuming markets (thus replacing cotton exported under benefit of the subsidy) and were reducing prices in the U.S. market. Based on these and other findings, the Commission concluded that imports of cotton and cotton waste were entering the United States under such conditions and in such quantities as to tend to render the cotton programs ineffective. With respect to cotton wastes, a country-specific quota was imposed based on historical trade patterns. Cotton and Cotton Waste, Inv. No. 22-1 (Rpt. 137, 2nd Series) (1939). In 1942, certain provisions of the quota relating to card strips were suspended. Proclamation 2544 (March 31, 1942).

The Commission engaged in a two-part analysis in this section 22(d) investigation. As requested by the President, the Commission examined whether changed circumstances exist that require modification or termination of the existing section 22 quota on cotton comber waste. 4/ Upon unanimously finding changed circumstances, the Commission then sought to determine what, if any, changes could be made to the existing quota, including termination, without resulting in cotton comber waste being or practically certain to be imported into the United States "under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with" USDA's support programs for cotton. 5/

The product

Cotton comber waste is a by-product of processing cotton into combed spun yarn. When combed yarn or thread are being produced, cotton is

4/ Chairman Brunsdale and Vice Chairman Cass note that they analyzed whether circumstances have changed in a manner germane to the quota on cotton comber waste, not independently of the potential impact of imports on the cotton support programs, but rather in the context of the statutory standard for the imposition of quotas.

5/ See 7 U.S.C. § 624(a). Section 22(a), which explicitly provides the standard for imposing section 22 quotas, also implicitly provides a standard for determining whether modification, termination, or suspension of an existing quota is appropriate. The quoted language has provided the standard applied by the Commission in this case. Omitted from this quotation is language regarding the effect of imports upon the amount of products processed from agricultural products. As the Commission has stated previously, this "processing clause" no longer appears to have relevance to investigations under section 22. See, e.g., Certain Tobacco, Inv. No. 22-43, USITC Pub. 1174 (1981) at 23-24; Cotton Products, Inv. No. 22-25, TC Pub. 69 (1962) at 9-10. Neither USDA nor any of the interested parties asserted, and there are no persuasive arguments before the Commission establishing, that imports of cotton comber waste would substantially reduce the amount of any product processed from cotton. Therefore, we will not address this issue further. See also Casein and Lactalbumin, Inv. No. 22-44, USITC Pub. 1217 (1982) at 3, n.1.

subjected to a process called "combing." 6/ In this process, cotton fibers are passed through rollers, blades and metal teeth to remove impurities and short fibers. Cotton comber waste consists of the fibers that are eliminated in the combing process. All cotton comber waste is originally unbleached, but some users require or prefer bleached cotton comber waste. In the United States, the waste is bleached by various end users, by specialized bleachers, and by dealers who purchase it from the producing textile mills. There are many different uses for cotton comber waste. Cotton comber waste is used in many products, including certain yarns, nonwoven fabric, felt, batting, wadding, padding, articles such as swabs, cotton balls, and hygiene products such as disposable diapers and sanitary napkins, paper, and chemical cellulose. 7/

The cotton programs

The relevant USDA programs in this investigation are support programs for cotton that have been in effect since the 1930s. 8/ The USDA cotton programs are intended to provide an adequate income to cotton farmers and an adequate and steady supply of cotton for domestic consumers. 9/ As the

6/ Raw cotton is processed before it reaches the combing stage. See Staff Report to the Commission, Inv. No. 22-51 (hereinafter "Report") at A-10/11. Not all cotton is used for yarn and not all cotton yarn is combed. Of the cotton yarn produced in the United States, approximately 12-15 percent of that yarn is combed yarn. Id. at A-19. A smaller percentage of foreign cotton is believed to be combed. Id. at A-24/25.

7/ Id. at A-10/11.

8/ Under normal market conditions, cotton comber waste is not directly covered by USDA's support programs for agricultural products.

9/ 7 U.S.C. § 1282. The agricultural programs are also intended, among other things, to expand foreign trade in agricultural commodities. See note following 7 U.S.C. § 1282. See also Report of the House Committee on Agriculture on the "Food Security Act of 1985," H.R. Rep. No. 271, Part 1, (continued...)

House Committee on Agriculture stated in 1985, the cotton programs are "designed to meet the needs of customers here and abroad, prevent large surpluses, and at the same time protect producer income." 10/

There are presently two USDA cotton programs, one for upland cotton and the other for extra-long-staple (ELS) cotton. Upland cotton accounts for about 98 percent of annual U.S. cotton production. 11/ In the past few years, a number of different mechanisms have been employed by USDA to accomplish the goals of the cotton programs. As explained more fully in the report, farmers have been assured a minimum price for their cotton through nonrecourse loans and have received several types of direct payments. For example, farmers may receive nonrecourse loans from the Commodity Credit Corporation (CCC) at the beginning of the planting season to cover the costs of planting, cultivating, and harvesting their cotton crops. To repay a nonrecourse loan, the farmer may pay back the full amount of the loan, or, if market prices are lower than the established loan rate, deliver the cotton subject to the loan to the CCC. Farmers may also benefit from marketing loans which provide for loan repayment plans when the world price of cotton is below the loan rate. The Government also sets a "target price" for cotton which is the basis for deficiency payments when average farm prices fall below the specified target price levels.

9/(...continued)

99th Cong., 1st Sess. 38-40, reprinted in 1985 U.S. Code Cong. & Ad. News at 1142-44 (emphasizing the importance of cotton exports); Report of the Senate Agriculture & Forestry Committee on the "Food and Agricultural Act of 1965," S. Rep. No. 687, 89th Cong., 1st Sess., reprinted in 1965 U.S. Code Cong. & Ad. News 3957, 3995.

10/ H.R. Rep. No. 271, Part 1, 99th Cong., 1st Sess. 38-40, reprinted in 1985 U.S. Code Cong. & Ad. News 1142-44.

11/ Report at A-6.

During some years, farmers must participate in acreage reduction programs to be eligible for certain benefits of the cotton programs.

Changed circumstances

As requested by the President, the Commission examined whether changed circumstances exist that require modification, suspension or termination of the existing section 22 quota on cotton comber waste. In the past, the Commission has cited a number of developments as being sufficient "changed circumstances" to require a particular change to an earlier section 22 proclamation. Among these are: (1) supply shortages (including temporary shortages, increased demand relative to production, and greater reductions in supply than in demand); 12/ (2) underutilization of the quota; 13/ (3) reductions in CCC purchases and uncommitted stocks; 14/ (4) discontinuance of domestic production; 15/ (5) increases in prices of the product since the quota was imposed; 16/ and changes in world market conditions, due, for example, to wartime disruptions in trade. 17/

It is our view that section 22(d) permits the President to liberalize unnecessarily restrictive or outdated quotas. Thus, we do not agree with the argument made by the Textile Fibers and By-Products Association (TFBA)

12/ See, e.g., Shelled Filberts, Inv. No. 22-4 (supplemental) (1955); Peanuts, Inv. No. 22-42, USITC Pub. 1124 (1981); Nonfat Dry Milk, Inv. No. 22-30, TC 541 (1973); Nonfat Dry Milk, Inv. No. 22-32, TC 587 (1973); Certain Cheeses, Inv. No. 22-6 (supplemental) (1960).

13/ Short Harsh Cotton, Inv. No. 22-1 (supplemental) (1957). See also Certain Cotton and Cotton Waste, Inv. No. 22-1 (supplemental) (1942).

14/ Certain Cheeses, Inv. No. 22-6 (supplemental) (1960).

15/ Short Harsh Cotton, Inv. No. 22-1 (supplemental) (1957).

16/ Id.

17/ Long-Staple Cotton, Inv. No. 22-1 (supplemental) (1942).

that the only circumstances justifying modifications of a quota are circumstances in which the present quota is not adequately protecting USDA's programs from material interference. 18/ If this were the case, the President could modify a quota only by making it more restrictive and could not liberalize a quota unless absolute termination of the quota were appropriate. 19/

In this investigation, there is ample evidence of changed circumstances. The quota on cotton comber waste was imposed 50 years ago by President Roosevelt when trade and market conditions were very different from present conditions. The quota reflected conditions existing at the time the quota was proclaimed. We agree with USDA, API, and Veratec, Inc. (Veratec) that the quota has become unnecessarily restrictive and outdated. 20/

More specifically, the country-specific allocations of the quota were calculated from import statistics reflecting patterns of trade prior to 1939. Each country's quota allocation was based on that country's exports of cotton wastes to the United States during a base period. Thus, countries exporting larger quantities of cotton wastes during the base

18/ TFBA Pre-Hearing Brief at 7.

19/ TFBA's interpretation of the statute would make section 22(d) a very inflexible and ineffective trade remedy. The President would be required to preserve unnecessary and outdated proclamations until he could find that total elimination or suspension of the proclamations was justified. We also note that TFBA's interpretation is inconsistent with long-standing section 22(d) practice. Relying upon the recommendations of the Commission, the President previously has liberalized quotas after finding changed circumstances. See, e.g., Proclamation 3460 (March 29, 1968), relying on Certain Cheeses, Inv. No. 22-6 (supplemental) (1960) (finding changed circumstances and recommending an increase in the annual quota); Proclamation 3790 (June 30, 1967), relying on Cheddar Cheese, Inv. No. 22-6 (supplemental) TC Pub. 175 (1966) (recommending increase in quota).

20/ USDA Prepared Testimony at 4-5; USDA Pre-hearing Brief at 4; API Pre-Hearing Brief at 7-8; Prepared Statement of Veratec at 1.

period were given a larger share of the quota. For example, the United Kingdom had been the source of approximately 85 percent of imports of card strips and cotton comber waste during the base period and was therefore given most of the quota for those products. Similarly, countries without any import history were, by the terms of the quota, barred from importing into the United States any of the products covered by the quota. 21/

The quota also reflected the kinds of cotton wastes entering the United States during the base period. Because most imports of card strips and cotton comber waste were derived from cotton of 1-3/16 inches or longer, two-thirds of the quota allotments for certain countries, including the United Kingdom, were reserved for card strips and cotton comber waste produced from this longer cotton.

The information developed in this investigation demonstrates that market conditions and patterns of trade have changed over the last 50 years. With respect to the countries permitted entries under both subcategories, many export little if any cotton comber waste today and are considered unlikely to export significant quantities of such waste in the foreseeable future. The United Kingdom, with 90 percent of subcategory (A), reportedly consumes all of its production of cotton comber waste primarily in spinning coarse yarns and in bleaching operations for various end uses. Furthermore,

21/ Import statistics examined by the Commission in 1939 did not separately report imports of each type of cotton waste and little import information was available regarding certain kinds of cotton waste. Consequently, the Commission estimated the imports of different kinds of waste when calculating the recommended quota. The recommended country allocations were intended to reflect the average estimated quantities of cotton wastes imported from each country during the base period examined by the Commission. With respect to Germany and Italy, the estimated imports were less than the minimum quota required by law and, therefore, the prescribed minimum quota was recommended for those two countries. Cotton and Cotton Waste, Inv. No. 22-1 (Rpt. 137, 2nd Series) (1939).

production of cotton yarn in the United Kingdom declined by 46 percent from 1980 to 1989 and demand for cotton comber waste in the United Kingdom reportedly has increased substantially in the last year due to a world shortage of linters. 22/ Given these changes, it is not surprising that there have been no appreciable U.S. imports of cotton comber waste from the United Kingdom in recent years. 23/ Similarly, all production of cotton comber waste in the European Community (EC) reportedly is either consumed internally or traded within the EC. As in the United Kingdom, many spinning mills in the EC are reusing their own cotton comber waste to produce coarse yarns instead of selling the waste on the open market. 24/ Even though several EC member states could, under the present quota, send small amounts of cotton comber waste to the United States under subcategory (A) and/or (B), they have rarely done so in recent years. Exports to the United States of cotton comber waste from these states have been virtually nonexistent.

With respect to countries permitted to export cotton comber waste to the United States only under subcategory (B), evidence similarly suggests that several of those countries are not significant exporters of cotton comber waste or are not significant producers of the product. For example, Canada

22/ Report at A-25.

23/ As noted in the report, a few imports of cotton comber waste and card strips from the United Kingdom were reported under Subcategory (B) of the quota in the last two years. Id. at A-28. For the period between September 1988 and September 1989, these imports equalled 9 percent of the United Kingdom's allotment under subcategory (B). Notably, these imports included card strips as well as cotton comber waste and constituted an even smaller percentage of the overall cotton comber waste quota allotted to the United Kingdom (i.e., subcategories (A) and (B) combined).

24/ Id. at A-25/26.

produces very little combed yarn and Japan reportedly uses most of its domestically produced cotton comber waste for the production of cotton yarn.

These changes can be explained partially by the advent and growth of open-end spinning. Mills can reuse cotton comber waste to produce coarse yarns more economically with open-end spinning equipment than with ring-spinning equipment. 25/ Many foreign producers of cotton comber waste are presently using open-end spinning equipment and are recycling their cotton comber waste to produce yarn. 26/

Information gathered by the Commission similarly suggests that the staple length restriction is outdated. As noted above, the staple length provision was included in the quota to reflect patterns of trade existing prior to the imposition of the quota in 1939. No evidence has been submitted to the Commission suggesting that the staple length restriction is presently necessary to protect USDA's programs from material interference. 27/ 28/

In addition to these changes in world conditions, there have also been changes affecting the domestic market for cotton comber waste. There is

25/ Id. at A-11.

26/ Id. at A-27.

27/ In fact, USDA has recommended removal of the staple length restriction. USDA Prehearing Brief at 3.

28/ There is some evidence that cotton comber waste produced from shorter cotton may be available on the world market in greater quantities than cotton comber waste from longer cotton. The only imports of cotton comber waste since 1981/82 have entered under subcategory (B) of the quota. These imports were of cotton comber waste produced from shorter cotton. Report at A-28. There is also evidence that some domestic purchasers would buy more short cotton comber waste if it were available. Id. at A-17.

evidence that domestic demand for cotton comber waste is increasing at a rate faster than domestic supply. This increase in demand for cotton comber waste is due to several factors: 29/ (1) there is an inelastic supply of cotton comber waste because such waste is produced in direct proportion to the level of cotton yarn being combed; (2) the growth in use of open-end spinning equipment allows textile mills to blend cotton comber waste with short staple length cotton and reduce the supply of cotton comber waste for sale on the open market; and (3) there is increased demand for cotton comber waste by papermakers and pulp suppliers. 30/ Because of this increase in demand, increased imports of cotton comber waste are more likely to be absorbed in the domestic market without exerting a significant downward pressure on the price of cotton comber waste. 31/

An additional changed circumstance relates to differences between the current cotton programs and the programs in existence in 1939. An export subsidy was introduced as part of the cotton program on July 22, 1939. 32/ Following imposition of the subsidy, prices in the United States increased to levels higher than prices in foreign markets and, as a consequence, imports increased. The Commission, therefore, recommended imposition of a section 22 quota. 33/ The cotton program in existence today includes no comparable export subsidy feature and includes features that are designed

29/ Id. at A-11/12.

30/ Id. at A-17.

31/ One means of assessing the materiality of interference with USDA programs is to examine the percentage of the import quotas to domestic consumption. See, e.g., Cheeses, Inv. No. 22-31, TC Pub. 567 (1973).

32/ See supra, note 3.

33/ Cotton and Cotton Waste, Inv. No. 22-1 (Rpt. 137, 2nd Series) (1939).

to prevent U.S. cotton prices from rising significantly above foreign cotton prices.

We do not find evidence in the record supporting the argument that changed circumstances require the quota on cotton comber waste to differentiate between bleached and unbleached cotton comber waste. We are not persuaded that the changes discussed in this statement support such a distinction.

In sum, the quota on cotton comber waste has become outdated due to declines in cotton yarn production in the United Kingdom, worldwide technological changes in the production of yarn, and other changes occurring over the last 50 years. As a consequence, the quota is presently being underutilized and has become unnecessarily restrictive. When the quota was proclaimed by the President, it permitted some imports of cotton comber waste. In its outdated form, the quota has effectively become an embargo against imports of cotton comber waste, not only because the quota specifies countries that are no longer net exporters of cotton comber waste but also because it allots such small quantities to specific countries. Some countries are allotted less than a container-load. According to hearing testimony, such small allotments are not economical or practical to fill. ^{34/} Exporters of cotton comber waste may lack sufficient incentive to develop relationships with purchasers in the United States and to transport the product when such severe quantitative restrictions apply. It may not be economical to ship small quantities of such an inexpensive product to the United States, particularly when an exporter's shipments may

^{34/} See Transcript of Hearing at 44-45 (testimony of Mr. Shiverick discussing practical problems with filling such small quota levels).

be barred from entry if another exporter from the same country fills the quota first.

RECOMMENDATIONS AND ADDITIONAL FINDINGS OF COMMISSIONER ECKES,
COMMISSIONER LODWICK, AND COMMISSIONER NEWQUIST

Material interference

Having determined that "changed circumstances" exist, we now examine whether certain modifications of the quota on cotton comber waste would result in cotton comber waste being or practically certain to be imported into the United States "under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with" USDA's support programs for cotton. As we have stated in prior determinations, we believe that the phrase "render or tend to render ineffective" imposes a higher standard than the "materially interfere" test. Thus, any action that renders or tends to render a program ineffective would, by necessity, materially interfere with the program. 1/ Therefore, we focus our discussion on the "materially interfere" language of the statute.

In prior investigations, "material interference" has been defined as "more than slight interference but less than major interference." 2/ When determining whether material interference is occurring or would occur if a quota were modified or terminated, the Commission has examined factors such as: (1) the available supply of imports, including import levels, changes in import volumes, world production, and world stocks of the imported product; (2) pricing data, including the relationship between import prices, U.S. prices, and the support price; (3) information relating to domestic supply and demand, including volumes and trends regarding U.S.

1/ See Certain Tobacco, Inv. No. 22-43, USITC Pub. 1174 (1981) at 3.

2/ Certain Articles Containing Sugar, Inv. No. 22-46, USITC Pub. 1462 (1983) at 30, n.11; Sugar, Inv. No. 22-45, USITC Pub. 1253 (1982) at 7; Casein and Lactalbumin, Inv. No. 22-44, USITC Pub. 1217 (1982).

production and U.S. demand; and (4) data relating to the Government programs, including CCC outlays, CCC surpluses, and changes in the cost to the Government of running a program. 3/

The Commission has stated previously that "[b]asic objectives of a program may be satisfied, but a program may nevertheless be materially interfered with if imports are causing increases in domestic stocks under loan or significant expenditures by the CCC." 4/ When assessing materiality, the Commission has compared the additional USDA expenditures that might result from a quota modification with USDA's expenditures for the entire price-support program at issue. 5/ The Commission has also examined, among other factors, the relative size of the quota or the commodity imports (actual or anticipated) to overall U.S. consumption. 6/

In this case, the material interference analysis is necessarily complicated for several reasons. First, the relevant USDA programs involve cotton, not cotton comber waste. As a consequence, it is difficult to predict what effect imports of cotton comber waste would have on cotton prices and, in turn, on the cotton programs. Second, cotton comber waste

3/ See, e.g., Sugar, Inv. No. 22-45, USITC Pub. 1253 (1982); Certain Tobacco, Inv. No. 22-47, USITC Pub. 1644 (1985); Nonfat Dry Milk and Animal Feeds Containing Milk or Milk Derivatives, Inv. No. 22-34, USITC Pub. 633 (1973) at 10.

4/ Sugar, Inv. No. 22-45, USITC Pub. 1253 (1982) at 7-8.

5/ Cheeses, Inv. No. 22-31, TC Pub. 567 (1973) at 6.

6/ See, e.g., Cheeses, Inv. No. 22-31, TC Pub. 567 (1973) at 6; Certain Articles Containing Sugar, Inv. No. 22-46, USITC Pub. 1462 (1983) at 21. In some circumstances, the Commission has been required to assess the impact of imports of one product on price support programs governing another product. When doing so, the Commission has examined whether the imports are likely to displace the products that are the subject of USDA's programs and the magnitude of any such displacement. See, e.g., Casein and Lactalbumin, Inv. No. 22-44, USITC Pub. 1217 (1982).

is a by-product for which very little information is available. For example, no reliable estimates of the world supply of cotton comber waste could be obtained in this investigation despite diligent efforts by Commission staff. Similarly, no reliable information concerning the world price for cotton comber waste could be obtained.

As suggested by the President, we have considered several alternative changes to the quota. First, we have examined two modifications recommended by USDA, i.e., globalization of subcategory (A) and removal of the staple length restriction, and considered whether these changes would result in cotton comber waste being imported under such conditions and in such quantities as to materially interfere with USDA's programs. These two changes to the quota could result in additional imports, but those imports would not exceed the total annual quota for subcategory (A) of 3,199,770 pounds. 7/ Although we do not believe that subcategory (A) would, in fact, be filled for reasons discussed below, we have examined whether imports at that maximum level would materially interfere with the cotton programs. As discussed below, we conclude that globalization and removal of the staple length restriction would not result in material interference. 8/

7/ In theory, these changes to subcategory (A) could also result in increased imports of cotton comber waste under subcategory (B). To the extent that the present quota has been underutilized because individual countries have impractically small allotments, globalization of subcategory (A) and removal of the staple length could encourage countries with allotments in both subcategories or in subcategory (B) only to increase imports under both. Although this possibility of additional subcategory (B) imports exists, we think any such additional imports would be insignificant because many of the countries with current allotments are not likely to be large exporters of cotton comber waste.

8/ Because the President's letter referred exclusively to quotas on cotton comber waste, we did not examine possible revisions to subcategory (B). As noted above, that subcategory includes several articles in addition to
(continued...)

To assess the likely impact of as much as 3.2 million pounds of imported cotton comber waste on the cotton programs, we have considered two economic models prepared by Commission Staff. The creation of these models was a difficult task because of the limited information available to the Commission and the character of the analysis required by section 22. The data limitations and the need to make numerous assumptions limit the usefulness of the model results and, accordingly, we do not place great weight on the estimates. 9/ 10/ 11/ As is discussed below, we believe that the estimates of additional costs to USDA suggested by the models are overstated. These estimates suggest that USDA might be required to spend several million dollars to counteract the depressing price effect on cotton of cotton comber waste imports totalling 3.2 million pounds. 12/ However, assuming that these models accurately predict the additional costs that

8/(...continued)

cotton comber waste. Neither USDA nor any of the interested parties presented evidence or arguments regarding the other articles. Accordingly, our findings and recommendations address only subcategory (A) of the quota.

9/ The economic models are based on the limited information available to the Commission. See B-31/32 (discussing the values assigned to different parameters and the information used to select those values).

10/ Commissioner Eckes notes that he ordinarily does not place "great weight" on estimates derived from models. However, in certain agricultural cases, such as Live Swine and Pork from Canada, Inv. No. 701-TA-224 (Final), USITC Pub. 1733 (1985), where data were readily available, the Commissioner has found this approach can yield insights which must be weighed against other evidence of record.

11/ Commissioner Lodwick relies primarily on the estimated effects of imports of cotton comber waste as detailed in scenario one in which imported cotton comber waste is assumed to displace U.S. produced raw cotton on a pound for pound basis. This provides an upper bound as far as estimated effects of imported cotton comber waste on USDA programs is concerned.

12/ Report at A-42/44 (USDA's costs could increase by \$4.5 to \$8.5 million dollars).

would be incurred by USDA as a consequence of 3.2 million pounds of cotton comber waste imports, we conclude that the predicted cost effect would not be large enough to constitute material interference. 13/ These additional costs are not trivial, but they constitute less than 1 percent of USDA's 1988/89 expenditures for the upland cotton program. The predicted effect on cotton prices of such import levels is also very small, ranging from .062 to .118 cents per pound. These reductions would equal a decline of only .2 percent or less in the price of cotton.

For several reasons, we believe that these estimates significantly overstate the likely effects of globalization and removal of the staple length restriction. First, they assume that imports will equal 3.2 million pounds. Although we cannot predict with any certainty the quantities of cotton comber waste that would be imported into the United States if the quota were liberalized, the Commission's information suggests that foreign supplies of the product available for export are limited. 14/ Furthermore, the estimates reflect an upward bias because of the low price elasticity of

13/ The models only estimate additional costs to the upland cotton program. We note that there were no Government payments under the ELS program during 1987/88. Id. at A-9. Because the upland cotton program accounts for approximately 98 percent of U.S. cotton production and ELS cotton prices would be affected much less by cotton comber waste imports than upland cotton prices, we do not believe that the estimates understate the additional costs to the Government of additional cotton comber waste imports.

14/ For example, information regarding foreign production and exports suggests that there is a limited supply of cotton comber waste available for export from certain countries. Id. at A-24/27. U.S. import statistics and evidence regarding the world-wide expansion of open-end spinning further support the conclusion that world supplies for export may be limited. Id. at A-27. Commission estimates of foreign production are clearly overstated because they use U.S. coefficients to estimate world production. Id. at A-25.

demand for raw cotton and for cotton comber waste. 15/ Significantly, these estimated additional costs are likely to decline after the first year. 16/ Thus, these estimates probably overstate the effect of cotton comber waste imports on cotton prices and suggest that any additional costs to USDA are likely to be small. Therefore, the estimates support the conclusion that imports would not materially interfere with the cotton programs if the quota were globalized and the staple length restriction removed.

We have also examined other available information to determine whether imports of cotton comber waste totalling 3.2 million pounds would result in material interference. Such import levels would equal 5.1 percent of estimated U.S. production of cotton comber waste, a small percentage of estimated U.S. consumption of cotton comber waste, and .04 percent of estimated U.S. production of raw cotton in 1988. 17/ These figures suggest that the effect on domestic cotton comber waste prices of such import volumes would be small and the effect on cotton prices would be even smaller. Significantly, cotton comber waste is not a perfect substitute for cotton for many end uses and, therefore, imports of cotton comber waste would not displace cotton pound for pound. 18/

15/ Id. at A-42/44. The lower the price elasticity of demand, the greater the expected impact on the cotton programs. The model estimates are also very sensitive to the value of the price elasticity of demand.

16/ This decline is likely because demand elasticities are larger for longer periods. Id. at A-42.

17/ Id. at A-19, A-18, and A-40. The exact percentage relating to U.S. consumption is confidential.

18/ Id. at A-15/18.

Therefore, we do not believe that globalization and removal of the staple length restriction would result in imports entering the United States in such quantities and under such conditions as to materially interfere with the cotton programs. Although there could be "slight" interference with the programs, we do not believe that such interference would rise to the level of "material" interference. 19/

We have separately considered whether termination or suspension of the subcategory (A) quota would, due to increased imports, materially interfere with the cotton programs. If the quota were terminated or suspended, it is possible that more than 3.2 million pounds of cotton comber waste would enter the United States. In that event, the price effects on cotton of imports exceeding 3.2 million pounds would be even greater than the effects discussed above. In turn, any additional imports would result in greater costs to the Government. Unfortunately, available information does not permit us to predict the quantities of imports that would, in fact, enter the United States if the quota were terminated or suspended. Because we cannot predict the quantities of imports that would enter the United States, we cannot find that such changes would not result in cotton comber waste being or practically certain to be imported into the United States under such conditions and in such quantities as to materially interfere

19/ Commissioner Lodwick does not believe that it is necessary to characterize the level of likely interference except to determine whether or not any interference would be material.

with USDA's support programs for cotton. 20/ Therefore, we do not recommend termination or suspension of subcategory (A).

RECOMMENDATIONS

For the foregoing reasons, we recommend that subcategory (A) of the cotton comber waste quota, provided for in subheading 9904.30.50 of the HTS, be globalized and the staple length restriction associated with that subcategory be terminated. We find that these modifications would not result in cotton comber waste being or practically certain to be imported into the United States under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with, any USDA cotton program or to reduce substantially the amount of any product processed in the United States from cotton.

20/ USDA shares our reservations about termination of the quota. At the hearing, USDA stated that it recommended globalization of the quota instead of termination because so little information was available to USDA about likely import levels. Transcript at 15. According to USDA, it would support termination only if there were information showing that exports to the United States would not be in such quantities as to materially interfere with the programs for cotton. Id.

RECOMMENDATIONS AND ADDITIONAL FINDINGS
OF
CHAIRMAN ANNE E. BRUNSDALE AND VICE CHAIRMAN RONALD A. CASS

Cotton Comber Waste, Inv. No. 22-51

At the request of the President, the Commission has investigated whether circumstances have changed sufficiently since the 1939 imposition of the quota on imports of cotton comber waste, authorized by Section 22 of the Agricultural Adjustment Act of 1933, to warrant modification or termination of that quota. As described in the introduction to this report, the quota is divided into two subcategories, subcategory (A), which applies exclusively to cotton comber waste, and subcategory (B), which includes other imported cotton waste products in addition to cotton comber waste. We agree with our colleagues that circumstances have changed significantly since the quota was imposed and we join in the discussion of these changes, supra. Our evaluation of these changes under the Section 22(a) standards for the imposition of quotas, however, leads us to make some additional findings and separate recommendations. Specifically, we recommend that subcategory (A) of the quota be suspended indefinitely, without distinction between bleached and unbleached cotton comber waste, and that a technical amendment be made removing cotton comber waste from subcategory (B) in order to recognize the changes in that category resulting from the suspension of subcategory (A) and to avoid confusion regarding the quota status of cotton comber waste.

Section 22(d) provides that after an investigation by the Commission, the President may suspend or terminate a quota imposed pursuant to Section 22(b) "whenever he finds and proclaims that the circumstances requiring the proclamation or provision thereof no longer exist" and further that he may modify such a quota "whenever he finds and proclaims that changed

circumstances require such modification to carry out the purposes of this section [Section 22]."¹ In determining that circumstances have changed to the extent that the quota on cotton comber waste should be suspended, we have evaluated the evidence before us using the same standards by which we would determine the need for the initial imposition of a quota. Under Section 22(a), the Commission is charged with determining whether the articles in question

are being or are practically certain to be imported into the United States under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with, [any USDA program],²

At present, there are only minuscule imports of cotton comber waste, and indeed there have not been any imports under subcategory (A) of the quota since the 1981/82 quota year.³ A fortiori, imports are not now entering the United States in quantities that would render or tend to render the USDA cotton support programs ineffective or materially interfere with these programs. We conclude from the record evidence compiled in this investigation that the absence of such imports is a result of substantial changes among producers and consumers of cotton comber waste both in the United States and abroad. Moreover, we do not have any other basis for believing that this quota is necessary to prevent material interference with the USDA cotton support programs. No evidence on the record suggests that imports would be practically certain to enter the United States in quantities detrimental to

¹ 7 U.S.C. § 624(d).

² 7 U.S.C. § 624(a).

³ There have been no imports of cotton comber waste under subcategory (A) since 1981. Under subcategory (B), 130 thousand pounds of bleached cotton comber waste and card strips entered in 1988, and another 29 thousand pounds of the same in 1989, both shipments from the United Kingdom. Report at A-28.

these USDA programs in the absence of a quota on cotton comber waste.

As discussed in the Views of the Commission, the quota on cotton comber waste currently is allocated to countries based on their market shares prior to 1939, the year the quota was imposed. The majority of the quota is allocated to the United Kingdom, with smaller shares divided among other European countries and Japan. Information on the record reveals that, for various reasons, these countries no longer export cotton comber waste.⁴ First of all, the United Kingdom has reduced its production of cotton yarn and therefore does not generate as much of the waste product. Given the current country allocations, many large producers of cotton yarn cannot export cotton comber waste to the United States. In addition, because technological changes have increased demand for cotton comber waste worldwide, countries that produce cotton comber waste are more likely to use it in their domestic industries than sell it on the open market. Because of these changed conditions, there have been no U.S. imports of cotton comber waste under subcategory (A) during the period of the investigation. For the same reason, we have no evidence that producers in countries that do not currently have a quota allocation would begin exporting cotton comber waste to the United States if the quota were suspended. There is no basis for predicting that an increase in imports is practically certain, much less an increase sufficient to be practically certain to interfere materially with the cotton support programs.

Other changes over the last 50 years also make it unlikely that even a very significant increase in imported cotton comber waste would adversely affect U.S. cotton producers and interfere with the cotton support programs.

⁴ Report at A-25.

Notably, demand for cotton comber waste has increased in the United States. In the late 1970s the growth of open-end spinning increased the demand for cotton comber waste in the textile industry.⁵ Textile producers are now better able to use cotton comber waste in the production of coarse yarns. The paper industry also claims to need more cotton comber waste for the production of currency paper, and additional uses have developed in the health and personal hygiene industries.⁶ Were we concerned with direct effects of imports on revenues to U.S. producers, the increase in demand would be less important, since it would affect almost entirely the composition of those revenue effects rather than their magnitude.⁷ In the instant investigation, however, our focus is different and so is the relevance of this change.

The effect of cotton comber waste on the USDA cotton support programs will be indirect, mediated principally through effects on returns to the cotton used for combing and derivatively through demand for U.S. cotton for combing, which in turn will affect the price at which cotton is sold. Imported cotton comber waste would reduce returns to U.S.-produced cotton comber waste and similarly returns to the cotton used to produce combed cotton and cotton comber waste. While this decrease would reduce the returns to cotton used in combing, it is significant that a decline in returns from cotton comber waste would yield a much smaller change in returns from cotton used for combing. As the name suggests, although it is commercially useful,

⁵ Report at A-11-12.

⁶ Report at A-15-18.

⁷ A producer of a joint product would not react as strongly to a change in demand for only one part of that joint product. This means that any change in demand for one component of the output would be likely to affect the price of that component, but would have a small effect on a producer's total revenue.

cotton comber waste is produced as a by-product of combed cotton. The value of the waste product is low enough relative to that for combed cotton that changes in the price of the waste would have relatively slight effects on the demand for cotton for combing.⁸ Moreover, as only 12-15 percent of U.S. produced cotton is used for combing, a large change in the demand for cotton for this use has a smaller percentage effect on the domestic demand for cotton. The USDA support programs are affected principally by the price of cotton.⁹ Changes in the U.S. market for cotton comber waste, thus, will have an effect on USDA programs that is filtered through at least three screens before affecting those programs, each diminishing the likely effects.

Two other relations should be noted. First, the waste product can be substituted for cotton fibers in some very limited applications. This more direct, but also more improbable, effect also must be considered. Further, given the attenuated relationship between cotton comber waste and cotton, increased U.S. demand for waste will not have any significant effect on cotton prices and will not call forth much increase in cotton or even cotton comber waste production. But the increase in U.S. demand for cotton comber waste does reduce the degree to which waste imports are likely to affect sales of cotton for combing.

The relationship between possible cotton comber waste imports and USDA

⁸ Cotton comber waste accounts for only 10 percent of the value of the joint product of combed cotton and cotton comber waste. Accordingly, a decline in the price of cotton comber waste would result in a relatively small change in the value of the joint product and therefore would have a relatively small effect on demand for the input, raw cotton.

⁹ These support programs include both direct payments and loans to growers. All of these programs base the amount of support available to the growers on the extent to which U.S. or adjusted world prices for cotton fall below a target price, in the case of direct deficiency payments, or a repayment rate, in the case of operating or marketing loans. See Report at A-6-9.

cotton support programs makes adverse effects from removing or suspending the quota anything but certain. At this time we cannot say that any level of imports is practically certain to occur, nor can we conclusively say at what level imports would pose a threat of material interference to USDA programs. The Commission staff has estimated the possible magnitudes of these effects under several different hypotheses, and we believe that these estimates also support suspension of the quota.

Staff estimated a range of possible costs to the USDA cotton program based on projected imports of 3.2, 5.5, and 30 million pounds of cotton comber waste. Their estimates of the increase in the cost of the program range from .4 to .8 percent if 3.2 million pounds were imported to 3.1 to 5.9 percent if 30 million pounds were imported. Thus, the best estimates that we have now indicate that even if the paper industry were able to import all the cotton comber waste that it wished at the desired prices, a very unlikely scenario, the greatest impact on the cotton programs in terms of increased costs would amount to only 6 percent of the entire program expenditures. We find these estimates useful in providing insight into the relationship between potential imports of cotton comber waste and the USDA cotton programs. We note as well, however, that these estimates tend to be upper bounds for several reasons.

First of all, in order to assess the impact that removing the quota on cotton comber waste would have on the U.S. cotton program, ideally one would compare the domestic and world price of cotton comber waste and then predict the likely increase in imports. Significant increases in imports are likely only if the U.S. price for cotton comber waste is significantly higher than the world price. Unfortunately, the Commission's staff could find no firm information about the world price.

We do, however, have a modest basis for drawing a negative inference on this issue: there is some evidence that the world price of cotton comber waste is not substantially lower than the U.S. price. If the world price were significantly lower, we would expect producers in countries with a quota allocation to export their domestically produced cotton comber waste to the United States at the relatively high U.S. price and then buy cotton comber waste for domestic use at the lower world price. As noted earlier, however, only a minuscule amount of cotton comber waste has been exported to the United States since 1981. In addition, cotton comber waste has been exported in minimal amounts. If cotton comber waste were available at a significantly lower world price, one would expect that there would be no U.S. exports of cotton comber waste. While the evidence is by no means conclusive, it indicates that the world price of cotton comber waste is not significantly lower than the U.S. price, and therefore that there would not be a large increase in imports if the quota on cotton comber waste were removed.

Second, information on the record indicates that cotton may be substituted for cotton comber waste only to a limited extent. Staff's range of estimates is based on different assumptions about the substitutability of cotton comber waste and cotton, with the low end assuming virtually no substitutability and the upper end assuming almost perfect substitutability. Given the record evidence on substitutability and the great disparity in prices between waste and cotton, even if one assumes that the entire amount hypothecated in a given case would actually be imported, the low end of the range of estimates is more likely to be correct.¹⁰

¹⁰ Low substitutability indicates that there would be a low cross-price elasticity of demand for cotton comber waste and raw cotton. Staff estimates
(continued...)

Finally, these estimates are very sensitive to assumptions made about the elasticity of demand for raw cotton and cotton comber waste.¹¹ More specifically, the estimates assume a low elasticity of demand for cotton comber waste, which means that a change in the price of cotton comber waste would lead to a very small change in the quantity of cotton comber waste demanded. Increased imports of cotton comber waste are therefore assumed to put significant downward pressure on the price of cotton comber waste and are more likely to be costly to the U.S. cotton program.¹² Because staff had no information about the elasticity of demand for cotton comber waste, they made a statistically neutral assumption, treating demand for waste, for combed cotton, and for all cotton as essentially equivalent.¹³

While there is no specific evidence to the contrary, we find this estimate unpersuasive. To begin with, the USDA estimate of the price elasticity for cotton appears unduly low: it seems unlikely that the demand elasticity for cotton would be at the level estimated by the USDA in any but the very short run. There are numerous substitutes for cotton that probably

¹⁰(...continued)

the cross price elasticity to be zero at the low end, and .3 at the high end.

¹¹ Assumptions about the price elasticity of demand for cotton, combed cotton and cotton comber waste affect the staff's estimates of import effects in this investigation. Based on a USDA estimate that the elasticity of demand for raw cotton is .3 and the assumption that combed cotton and cotton comber waste have the same elasticity of demand, the elasticity of demand for cotton comber waste is assumed to be just slightly above .3. See Report at A-45. These assumptions are discussed below.

¹² Because cotton comber waste substitutes for raw cotton to a limited extent, and because it is made from raw cotton as a joint product with combed cotton, there are indirect effects that lead to a decline in the demand for raw cotton. Because the price elasticity of demand for raw cotton is assumed to be quite low, this decrease in demand leads to a significant decline in the price of raw cotton. This in turn is costly to the U.S. cotton program.

¹³ See Report at Appendix G.

would be used in many applications if the price of cotton increased. More fundamentally, we do not believe that it is appropriate to treat cotton comber waste as having a price elasticity virtually equivalent to that of cotton. Indeed, as combed cotton has more good substitutes than cotton overall, it seems likely that it would have a greater price elasticity. Cotton comber waste appears to have an even broader range of substitutes. In addition, since there is such a small amount of cotton comber waste relative to combed cotton, any substitution between the joint product -- combed cotton and cotton comber waste -- and raw cotton resulting from a relative price change would have a proportionally larger effect on the quantity of cotton comber waste that is demanded, further suggesting variance between the price elasticities of cotton and cotton comber waste. Therefore, assumptions about the price elasticity of demand may result in estimates that are upwardly biased.

A question has been raised respecting the inference to be drawn from the inability of the Commission staff, even after great effort, to gather useful data on the world market for cotton comber waste and on the potential suppliers of this product to the United States. We interpret this absence of data in the context of the statutory standard somewhat differently than our colleagues who recommend globalization of the quota. The very fact that there is so little evidence regarding the world market suggests to us that it is unlikely that previously unknown suppliers capable of exporting large amounts of cotton comber waste to the United States will materialize should the quota be suspended. Speculation that such suppliers may exist would not support a determination that imports are "practically certain" to enter the United States in quantities sufficient to interfere materially with the USDA cotton programs in a proceeding under Section 22(a) to impose a quota on cotton

comber waste. Given the failure of the evidence to meet the statutory standard, we could not in such a proceeding recommend imposition of any quota, nor could we in essence "hedge our bets" by recommending a seemingly liberal quota.

We do not believe that we can do so here either. Having determined in this proceeding that circumstances have changed to the extent that we cannot be practically certain that imports of cotton comber waste will enter the United States in quantities sufficient to materially interfere with the USDA cotton support programs, and therefore that the original need for the quota on this product no longer exists, we feel compelled to recommend that the quota be suspended. In light of these findings we can not recommend globalization as an intermediate measure to protect against unforeseen changes in the global trade of cotton comber waste.

We believe that, read as a whole, the statute further supports suspension. In evaluating whether changed circumstances require the suspension, termination, or modification of a quota imposed under Section 22(b), the statute mandates that we be mindful of its purposes. Clearly, protection of USDA programs is the primary purpose of the statute,¹⁴ but actions taken to further this purpose are limited by the stricture that the President impose only those quotas

as he finds and declares shown by such investigation to be necessary in order that the entry of such article will not render or tend to render ineffective, or materially interfere with [a USDA program].¹⁵

The Customs Court in Best Foods, Inc. v. United States, 218 F. Supp. 576

¹⁴ H. Rep. No. 1241, 74th Cong., 1st Sess. 21 (1935).

¹⁵ 7 U.S.C. § 624(b).

(Cust. Ct. 1963) interpreted this provision to require that the President take action only to the extent found necessary to prevent material interference with USDA programs. In light of this statutory provision and the court's reading of it, we do not believe that unnecessary quotas should remain in force.

We do, however, recognize that our inability to make good estimates regarding potential imports of cotton comber waste, due to the lack of available data, militates against outright termination of the quota. We recommend indefinite suspension rather than termination of the quota in order to provide a procedural mechanism by which we can act quickly to reevaluate the need for quotas on cotton comber waste should that be necessary at some time in the future.

We further recommend that cotton comber waste be removed from subcategory (B) in recognition that once the quota on subcategory (A) is suspended, it is unlikely that imports of cotton comber waste would enter under subcategory (B). The free entry of cotton comber waste imports, once subcategory (A) has been suspended, necessarily will result in an increase in the quota available to the other cotton wastes covered by subcategory (B). Though termination or modification of the quota limits on the other cotton waste products contained in subcategory (B) is not within the scope of this investigation, we believe a clarifying amendment to subcategory (B) adjusting for the de facto changes brought about by the President's suspension of subcategory (A) is both permissible and advisable to avoid confusion as to the quota status of cotton comber waste among those using the Harmonized Tariff Schedules of the United States. The Commission has been careful to inform the public during this proceeding that in light of the President's request that we

review the entire quota on cotton comber waste, our investigation would include consideration of cotton comber waste imports under both subcategories (A) and (B).¹⁶ We therefore are satisfied that we have provided notice that our recommendations with respect to cotton comber waste might indirectly impact the other products contained in subcategory (B) and that this notice is sufficient to justify the proposed clarifying amendment to that subcategory.

¹⁶ See Commission notice of institution of Investigation 22-51, 54 Fed. Reg. 35088 (Aug. 1989), Report at B-4.

Additional Findings and Recommendations
of Commissioner David B. Rohr

I concur with and join the Commission's findings regarding the circumstances that have changed dramatically since the quota was originally imposed. The historical basis for the staple length requirement no longer exists. I concur with my colleagues in recommending that the President eliminate the staple length restrictions. I also join my colleagues in recommending to the President that bleached and unbleached cotton comber waste imports should not be distinguished. The circumstances that have changed do not justify distinguishing cotton comber waste imports in this manner.

I further recommend that the President terminate the quota on cotton comber waste. My recommendation is based on the plain language of the statute. Section 22 of the Agricultural Adjustment Act directs the Commission to determine whether "any article or articles are being or are practically certain to be imported into the United States under conditions and in such quantities as to render or tend to render ineffective, or materially interfere with," any USDA program.

Imports of cotton comber waste into the United States have been negligible for more than the last seven years. In fact, the United States now exports cotton comber waste. It is therefore unlikely that U.S. imports of cotton comber waste will increase if the quota is terminated.

I recognize the plurality's concern that there is difficulty in predicting what import levels will be if the quota is terminated. Globalizing the current 1,451 metric ton (3.2 million pounds) subcategory A quota on cotton comber waste is virtually certain to have no material effect on the U.S.D.A. cotton program. Even if the globalized quota were totally filled, imports would amount to only six percent of estimated 1988 U.S. production of cotton comber waste and only 0.1 percent of 1988 U.S. mill consumption of cotton. The effect on the U.S.D.A. cotton program of cotton comber waste imports would be indirect

because cotton comber waste would not substitute directly for U.S. cotton.

If the quota were globalized, it is practically certain that imports of cotton comber waste would **NOT** enter the United States in such increased quantities and under such conditions as to render or tend to render ineffective, or materially interfere with any U.S.D.A. program. However, this is not the standard that the statute directs the Commission to apply. Rather, the Commission, and the President, must focus on whether imports **ARE** practically certain to have this effect if the quota is modified or terminated.

Cotton comber waste is not currently being imported into the United States in significant quantities. Nor, based on the information developed in this investigation, can I conclude that cotton comber waste is practically certain to be imported into the United States in such increased quantities and under such conditions as to render or tend to render ineffective, or materially interfere with any U.S.D.A. program.

I find, therefore, that there is no basis under Section 22 for continuing the quota on cotton comber waste. Accordingly, I recommend that the President terminate subcategory (A) of HTS 9904.30.50 and eliminate cotton comber waste from the list of cotton waste products covered by subcategory (B) of HTS 9904.30.50.

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On July 25, 1989, the Commission received a letter from the President stating that he had been advised by the Secretary of Agriculture, and that he agreed with the Secretary, "that there is reason to believe that the quota on cotton comber waste, wherever classified in the Harmonized Tariff Schedule of the United States, may need to be terminated or modified because the circumstances requiring the proclamation of such import quota restrictions have changed." ¹

As directed by the President, the Commission instituted investigation No. 22-51 under section 22(d) of the Agricultural Adjustment Act (7 U.S.C. 624(d)) to determine whether the quota on cotton comber waste, provided for in subheading 9904.30.50 of the Harmonized Tariff Schedule of the United States (HTS), should be terminated or modified, including globalizing country quota allocations, ² eliminating the staple length restrictions on cotton used to make cotton comber waste, or distinguishing between bleached and unbleached cotton comber waste, or by adjusting the quota otherwise to take account of circumstances that have changed since the quota was proclaimed. Subheading 9904.30.50 of the HTS sets forth two quota columns and a column showing each country's total quota. Quota column A establishes a "minimum quota" for "certain cotton comber waste" (defined in note 3(b) to the subchapter) and quota column B establishes an "unreserved quota" for all quota-type cotton waste imports, including cotton comber waste, certain card strips, lap waste, sliver waste, and roving waste. ³ Because both quota columns include cotton comber waste, the Commission's investigation examined imports counted under both quota columns' limits.

Notice of the institution of the Commission's investigation and of a hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of August 23, 1989 (54 F.R. 35088). ⁴ The Commission held a public hearing in Washington, DC, on November 28, 1989, at which time all interested parties were allowed to present information and data for consideration by the

¹ A copy of the President's letter is presented in app. A.

² The country allocations of the quota on certain cotton wastes are set forth in subheading 9904.30.50 of the HTS. Such wastes are classified for tariff purposes in subheading 5202.99.00 of the HTS.

³ The wastes governed by the quota are byproducts produced as cotton is prepared for spinning into yarn.

⁴ A copy of the Commission's notice is presented in app. B.

Commission.⁵ The Commission transmitted its findings to the President on January 25, 1990.

Background⁶

Section 22 (7 U.S.C. 624) authorizes the President to impose fees or quotas on articles that he finds are being or are practically certain to be imported into the United States under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with, certain domestic commodity programs of the U.S. Department of Agriculture (USDA). It also authorizes the President to suspend or terminate such fees or quotas "whenever he finds and proclaims that the circumstances requiring the proclamation or provision thereof no longer exist" or to modify the fees or quotas "whenever he finds and proclaims that changed circumstances require such modification...." (7 U.S.C. 624(d)).

Information obtained in 1939, in the Commission's first section 22 investigation, revealed that cotton and cotton waste were being imported under such conditions and in sufficient quantities as to tend to render ineffective the program undertaken under the Soil Conservation and Domestic Allotment Act with reference to the production and marketing of domestic cotton.⁷ Accordingly, to protect the USDA support programs for cotton from interference from imports, country-specific quotas on imports of most short-staple cotton, long-staple cotton, certain cotton waste including cotton comber waste,^{8, 9} and cotton processed but not spun were established by the President in Proclamation 2351 on September 20, 1939.

In the two years prior to the imposition of the section 22 quotas on cotton and cotton wastes, stockpiles of U.S.-produced cotton had grown large

⁵ A list of witnesses appearing at the hearing is presented in app. C. The U.S. Department of Agriculture testified at the hearing and was provided with an opportunity to question other witnesses.

⁶ There have been numerous recommendations and proclamations rendered on cotton and cotton products which are not included in this report.

⁷ See Cotton and Cotton Waste: Report to the President Under Section 22 of the Agricultural Adjustment Act of 1933 as Amended, Report No. 137, Second Series, 1939.

⁸ The original cotton waste quota of 5,482,509 pounds per year and its country allocations are those still in effect today and subject to investigation.

⁹ The total quota provided, however, that not more than 33-1/3 percent of the quota could be filled by cotton wastes other than cotton card strips and comber wastes made from cottons of 1-3/16 inches or more in staple length in the case of the following countries: the United Kingdom, France, the Netherlands, Switzerland, Belgium, Germany, and Italy.

and exports of American cotton had fallen. ¹⁰ "To assure the United States its fair share of the world trade in cotton," the Secretary of Agriculture, on July 22, 1939, announced that, as part of the cotton program, an export subsidy of 1-1/2 cents per pound would be paid on lint cotton and certain types of cotton wastes, namely card strips and comber waste. ¹¹ This created entirely new conditions affecting the importation of cotton and cotton waste into the United States. The subsidy led not only to reduced cotton prices of U.S. cotton in the foreign markets, but also to initially lower cotton prices in the foreign markets compared to the U.S. market. This realignment of prices apparently encouraged U.S. imports of cotton and cotton wastes. ¹² Based on the resulting higher relative prices in the U.S. market, the Commission found that imports of cotton and cotton waste were entering the United States under such conditions and in such quantities as to tend to render the program ineffective. These imports displaced U.S. cotton in U.S. consuming markets, thus replacing cotton exported under benefit of the subsidy, and at the same time brought down prices in the U.S. market, which defeated the program which section 22 was designed to protect.

Hence, the Commission recommended, and the President imposed, quotas to protect purchases of U.S. cotton from eroding and to permit the U.S. industry to secure needed supplies of specialized types of cotton and cotton waste; country specific quotas were recommended, based on historical trade patterns. ¹³ European countries were allotted quotas for specified types of cotton waste totaling 4,799,656 pounds annually, of which two-thirds, or 3,199,770 pounds, was reserved for card strips and comber wastes made from cotton 1-3/16 inches or more in staple length. The United Kingdom was allotted approximately 90 percent of the total quota for European countries. At the time, cotton wastes obtained from the United Kingdom were predominantly card strips made from cotton having a staple 1-3/16 inches or more in length; comber wastes, although included with card strips in the reserved quota, were imported in negligible amounts.

In February 1942, the U.S. Tariff Commission recommended, in part, that the quota restriction on card strips made from cotton having a staple length

¹⁰ During the 1930s, the United States was the world's leading producer, processor, and exporter of raw cotton. Accordingly, the great bulk of the raw cotton and cotton waste consumed in the United States was supplied by domestic producers. Limited U.S. imports of cotton and cotton waste were largely of specialty cotton varieties for particular uses. Prices of U.S. cotton and cotton waste in foreign markets were normally higher than in the U.S. market, by approximately the transportation costs to ship products to such markets.

¹¹ The export subsidy on cotton was not granted for shipments to Canada or Mexico.

¹² U.S. imports of cotton that were previously exported from the United States were also possible because the subsidy was greater than the added cost of transportation.

¹³ A complete listing of the countries covered by the quotas is presented on p. 13.

of 1-3/16 inches or more be suspended. Because of war conditions, the quantities of cotton waste of all kinds subject to the quota imported from the United Kingdom were decreasing or had practically ceased. The United States needed these imports to supplement domestic supply. The President ordered the suspension of the staple length requirement for card strips, and since that order, no quota staple length restrictions have been imposed on cotton used to produce card strips. Card strips are still subject to the quantitative restrictions of the unreserved quota.

In December 1946, the U.S. Tariff Commission recommended that an absolute import quota of 70 million pounds per annum be imposed on harsh or rough cotton having a staple of less than 3/4 of an inch in length (short harsh cotton). On February 1, 1947, the President proclaimed the recommended quota (Proc. No. 2715). In December 1957, the U.S. Tariff Commission recommended the removal of the quota restriction on short harsh cotton established in 1947 by terminating Proclamation No. 2715, because the circumstances requiring the quota no longer existed. On January 28, 1958, the President terminated the provisions of Proclamation No. 2715.

In March 1974, the U.S. Tariff Commission recommended that the quotas covering certain cotton, cotton waste, and cotton products, as provided under items 955.01 through 955.06 of part 3 of the appendix to the Tariff Schedules of the United States,¹⁴ be temporarily suspended effective from the date of the proclamation through the last day of the quota year ending in 1975 because of a tight supply of upland cotton and extra-long-staple cotton in the United States.¹⁵

In a letter dated August 9, 1988, the American Paper Institute (API) requested that the cotton comber waste quota under section 22 be reviewed. API argued that circumstances have changed such that the import quotas should be terminated or modified to globalize the quota on unbleached cotton comber waste. API contends that domestic availability of cotton comber waste (which is essential to the manufacture of certain grades of cotton fiber paper) is insufficient, and that it is not being exported to the United States by the countries that were allocated quotas for cotton comber waste and other cotton wastes in 1939¹⁶ because the cotton industry in these countries has declined. USDA testified at the hearing that yarn production has shifted to the Far East and that China is a large producer.¹⁷

¹⁴ After Jan. 1, 1989, cotton comber wastes were provided for under item 9904.30.50 of the HTS.

¹⁵ The President took no action on the Commission's recommendation; * * *.

¹⁶ Also see testimony by USDA, transcript of the hearing (TR), pp. 10-11 and 13-14.

¹⁷ TR, pp. 13-14 and 20. In 1988, China ranked fifth worldwide among textile exporters; however, China is currently suffering from a shortage of cotton, The Journal of Commerce, Dec. 5, 1989. Mr. Shiverick, of Crane & Co., cited China as the largest producer as well as the largest consumer of cotton in the
(continued...)

Following receipt of the letter, USDA established a departmental task force to analyze API's request and to prepare a recommendation. USDA's Task Force on cotton comber waste recommended that the section 22 quota on cotton comber waste be modified, including globalization of country quota allocations to permit all countries to participate¹⁸ and elimination of the staple length restriction on cotton used to make cotton comber waste, because the circumstances upon which the quota was based have changed and the quota is being underutilized.¹⁹ The principal findings of the Task Force were: (1) there have been virtually no imports of cotton comber waste under section 22 quota in recent years; (2) the paper industry and the textile industry do not agree on whether domestic production is sufficient to meet the increasing and varied domestic uses of cotton comber waste; (3) the quota which is reserved for cotton comber waste stipulates that it must be produced from cotton of certain staple lengths (1-3/16 inches or more), which excludes cotton comber waste from the major foreign supply sources that utilize shorter staple cotton in their mills;²⁰ and (4) foreign production of cotton comber waste exists to an undetermined but limited extent,²¹ some of which is exported to non-U.S. markets. The Task Force did not address the question of distinguishing between bleached and unbleached cotton comber waste.

At the hearing, USDA recommended that the import quota level established by Proclamation No. 2351 in quota column A remain unchanged at 1,451 metric tons, but that the quota be globalized to allow for the entry of imports from all countries. USDA further recommended that the staple length restriction on cotton used to produce cotton comber waste should be eliminated. USDA remains uncommitted on the issue of whether the quota should distinguish between bleached and unbleached cotton comber waste and whether the import quota under quota column B should be modified or eliminated.²²

¹⁷ (...continued)

world, TR, p. 43; however, Mr. Johnson, of Veratec, did not expect China to be a major supplier of cotton comber waste, TR, p. 64.

¹⁸ USDA recommends globalizing rather than terminating the quota because there are insufficient data on foreign production to predict potential foreign supply of cotton comber waste, TR, pp. 12-13 and 15-16.

¹⁹ TR, pp. 10-11.

²⁰ In 1939, the United Kingdom and various other European countries produced cotton comber waste from cotton having a staple length of 1-3/16 inches or more. Very little cotton comber waste was produced from this type of cotton outside of Europe. This restriction was based on a production and export situation for cotton comber waste that no longer is commercially realistic, USDA's prehearing brief, pp. 4-5.

²¹ TR, p. 16.

²² TR, pp. 9, 11, and 23.

Cotton price support and production adjustment programs

Since the 1930s, Government programs have attempted to support cotton prices and adjust acreage to insure adequate income to farmers and adequate and steady supply of cotton to meet market needs. Under normal market conditions, cotton combing waste and the other cotton wastes are not directly covered by the cotton support program.

Farmers are assured a certain minimum price through nonrecourse loans and several types of direct payments. Farmers may receive loans (Commodity Credit Corporation (CCC) loans) at the beginning of the planting season to cover costs of planting, cultivating, and harvesting the crop. Direct payments can be made under such provisions as those for target prices and acreage diversion. Because of the differing market conditions, the Government has separate program provisions for upland cotton and for extra-long-staple (ELS) cotton. A farmer may receive benefits under more than one provision of the program. The program for upland cotton accounts for about 98 percent of annual U.S. cotton production.

The following definitions apply to the main provisions of the USDA cotton program during recent years.

Acreage reduction program (ARP).--This is a land retirement system in which farmers idle a portion of their base acreage of wheat, feed grains, upland and ELS cotton, or rice. The base is the average of the acreage planted for harvest and considered to be planted for harvest during a specified preceding period. The latter includes any acreage not planted because of acreage reduction and diversion programs. Farmers are not given a direct payment for ARP participation, although they must participate to be eligible for benefits like CCC loans and deficiency payments. Participating producers are sometimes offered the option of idling additional land under a paid diversion program, which gives them a specific payment for each idled acre.

Offsetting compliance. ²³--When an offsetting compliance program is in effect, a producer participating in a diversion or acreage reduction program on one farm must not offset that reduction by overplanting the acreage base for that crop on another farm.

Cross compliance. ²⁴--When a full cross-compliance program is in effect, a producer participating in one commodity program (wheat, feed grains, cotton, or rice) on a farm must also participate on that farm in all aspects of the other applicable commodity programs. When a limited cross-compliance program is in effect, a producer participating in one commodity program only must not plant in excess of the crop acreage base on that farm for any of the other program commodities for which an acreage reduction program is in effect.

²³ This condition refers to program requirements if a farmer grows a subject crop on more than one farm.

²⁴ This condition refers to program requirements if a farmer grows more than one subject crop on a single farm.

Target price.--This is a price established yearly to be used as the basis for determining deficiency payments. Deficiency payments are a direct Government payment to participating producers if farm average prices fall below the specified target price levels during the calendar year. Payment rates cannot exceed the difference between target prices and the price support loan rate.

Nonrecourse loan.--This is a loan received by a farm from the CCC at the beginning of the growing season to cover costs of planting, cultivating, and harvesting the crop. Loans under the cotton program are nonrecourse loans. To repay a nonrecourse loan, the farmer may pay back the full amount of the loan or alternatively deliver the cotton subject to the loan to the CCC. Such delivery constitutes full payment of the loan regardless of the current market value of the cotton.

Marketing loan.--The marketing loan provides a loan repayment plan if the loan rate is not competitive on world markets. If the world price of cotton, as determined by the Secretary of Agriculture, is below the loan rate, a loan repayment plan must be implemented. The Secretary chooses one of two alternative "market enhancement" plans for loan repayment. Under Plan A, the Secretary can lower the producer repayment rate by up to 20 percent, thus allowing farmers to redeem their crops and sell them at a more competitive price. The repayment level must be announced by November 1 when the Secretary announces the loan rate and cannot thereafter be changed. Under Plan B, repayment rates would vary periodically during the year to keep pace with world markets. The enabling legislation provides that for the 1987-90 crops, if the world price, adjusted to U.S. quality and location, is below 80 percent of the basic loan rate, the Secretary may set a loan repayment level at any level between the adjusted world price (AWP) and the 80 percent of the loan rate. Plan A was chosen for the 1986 crop, with a loan repayment rate equal to 80 percent of the basic loan rate for each quality of cotton. Plan B was selected for the 1987-90 crops, although no payments were made under this plan because the AWP was above the loan rate during this period.

The concept of the marketing loan was an attempt to retain the basic cotton loan program, but yet keep U.S. cotton competitive in world markets. Under this program, the USDA each week calculates and publishes an AWP. The AWP is the prevailing world market price of cotton adjusted to U.S. base quality and location. The procedure for establishing the weekly AWP is based on a specified formula developed by the USDA. Congress gave the Secretary of Agriculture discretionary authority to develop and modify this formula as deemed necessary to keep U.S. cotton competitive in world markets.

Upland cotton program provisions effective for the 1989/90 crop year.--To be eligible for target price protection payments and loans for the 1989/90 upland cotton crop, farmers must participate in a 25-percent acreage reduction program; acreage planted for harvest on a farm must be 25-percent below that farm's acreage base, the average of acres planted during the previous five years. Additionally, a number of acres equal to one-third of the planted acres must be devoted to approved conservation uses. Farmers who produce upland cotton on land in excess of the permitted acreage for a particular farm will be ineligible for loans and payments on that farm. Cross-compliance

requirements will also be in effect for the 1989/90 crop. Offsetting compliance requirements do not apply for this crop year.

The 1989/90 loan rate is 50.0 cents per pound for strict low middling, 1-1/16 inch cotton. This grade and staple length is used as the basis for establishing loan rates. Higher qualities receive loan premiums and generally higher market prices, and lower qualities receive lower loan rates and lower prices. Cotton quality is based on characteristics that affect processing performance and the quality of the various end products. The seven most important factors used to judge cotton quality are fiber length, length uniformity, strength, fineness, maturity, color, and trash content. The loan period is 10 months, but this may be extended during the tenth month for another 8 months whenever the spot market price is 130 percent or less of the average for the previous 36 months. The Secretary of Agriculture will determine weekly the AWP that will be used, if necessary, to adjust the loan repayment rate. During a week in which the AWP is lower than the 50.0-cent-per-pound loan rate, cotton producers may repay the 1989/90 upland cotton loans at the AWP in effect for that week. Eligible producers who do not receive CCC loans may receive deficiency payments for cotton sold, representing the difference between the higher of the average farm price or loan rate and the target price. The target price for 1989/90 is 73.4 cents per pound. Table 1 shows data related to the upland cotton farm program for 1980/81-1989/90.

Extra-long-staple (ELS) cotton program effective for the 1989/90 crop year.--Farmers producing ELS cotton must participate in the acreage reduction program to be eligible for target price protection and price support loans for the 1989/90 crop. To participate, farmers must reduce their acreage by at least 5 percent of their acreage base. This base is the average acreage planted to ELS cotton during 1985-87. Additionally, a number of acres equal to 5.26 percent of the planted acres must be devoted to approved conservation uses. ELS cotton is exempt from cross-compliance requirements, so farmers operating more than one farm are not required to participate on all farms.

The loan level for ELS cotton for 1989/90 is 81.77 cents per pound and the target price is 96.70 cents per pound. The term of the loan is 10 months, and the loan may be extended for 8 months during the tenth month of the loan. If the average market price received by farmers during the first 8 months of the 1989/90 crop year is below the target price of 96.7 cents per pound, eligible producers will receive deficiency payments. These payments will be equal to the difference between the target price and the higher of the loan level or average market price. Table 2 shows data related to the ELS cotton farm program for 1980/81-1989/90. In recent years, particularly since the 1985/86 crop, U.S. production of ELS cotton has increased significantly, from 155,000 bales to an estimated 636,000 bales in 1989/90. This increased production has been largely for the export market since traditional suppliers to this market such as Egypt and the Sudan, have been unable to meet demand.

Payment limitations are imposed for participants in Government farm programs, including the upland and ELS cotton programs. The total of deficiency and diversion payments under the wheat, feed grain, cotton, and rice programs is limited to \$50,000 per person. In addition, combined

Table 1
Upland cotton: Summary of data related to farm programs, 1980/81-89/90

Crop year	Planted	Production	Ending	Loan	Target	Average	Value of	Government
	acreage		stocks	rate	price	farm price	production	payments
	1,000 acres	1,000 bales		Cents per pound			Millions of dollars	
1980/81	14,461	11,018	2,614	48.00	58.40	74.40	3,933	302.0
1981/82	14,272	15,566	6,567	52.46	70.87	54.00	4,038	549.6
1982/83	11,275	11,864	7,844	57.08	71.00	59.10	3,364	653.9
1983/84	7,863	7,676	2,693	55.00	76.00	66.00	2,430	434.7
1984/85	11,065	12,852	4,024	55.00	81.00	57.50	3,546	654.0
1985/86	10,601	13,277	9,289	57.30	81.00	56.10	3,560	1,054.0
1986/87	9,933	9,525	4,942	55.00	81.00	51.50	2,360	1,383.0
1987/88	10,269	14,475	5,718	52.25	79.40	63.70	4,413	951.0
1988/89	12,320	15,077	7,440	51.80	75.90	54.80	3,917	1,130.0
1989/90 <u>1/</u>	10,179	11,198	3,744	50.00	73.40	<u>2/</u>	<u>2/</u>	<u>2/</u>

1/ Preliminary and partially estimated.

2/ Not available.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table 2
Extra-long-staple cotton: Summary of data related to farm programs, 1980/81-89/90

Crop year	Planted	Production	Ending	Loan	Target	Average	Value of	Government
	acreage		stocks	rate	price	farm price	production	payments <u>1/</u>
	1,000 acres	1,000 bales		Cents per pound			Thousands of dollars	
1980/81	72.5	104	54	93.50	93.50	100.00	53,919	0
1981/82	58.6	80	65	99.00	99.00	96.90	37,034	0
1982/83	70.9	99	93	99.89	99.89	98.50	46,679	0
1983/84	63.0	95	82	96.25	96.25	106.00	47,972	0
1984/85	80.1	130	78	82.50	99.00	91.90	57,521	747
1985/86	84.0	155	59	85.95	103.14	90.90	68,394	1,330
1986/87	111.5	206	84	85.40	102.48	89.60	88,529	2,459
1987/88	137.9	285	53	81.40	97.70	103.70	141,983	0
1988/89	189.6	334	60	80.92	95.70	115.00	185,257	<u>3/</u>
1989/90 <u>2/</u>	341.0	636	156	81.77	96.70	<u>3/</u>	<u>3/</u>	<u>3/</u>

1/ Large payments in 1984/85 and 1986-87 occurred because target prices were above the average farm price. At this time, U.S. farmers were increasing production to meet anticipated export demand. Since then target prices have been lowered, and increased export demand led to higher prices.

2/ Preliminary and partially estimated.

3/ Not available.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

payments, including disaster payments, loan repayment gains, loan deficiency payments, inventory reduction payments, compensation for resource adjustment or public access for recreation, and diversion and deficiency payments, are limited to \$250,000 per person.

The Product

Description and uses

Cotton comber waste and the other cotton wastes covered by the quota of concern in this investigation (HTS item 9904.30.50) are byproducts of processing cotton into spun yarn. Cotton goes through several processing steps from the time it is picked until it is spun. When cotton is picked, the raw cotton fibers are firmly attached to the seed. From the field, the cotton is transported to a cotton gin in which the ginning process is accomplished. In this process, some impurities are removed, the raw cotton fibers and the seed are separated, and the raw cotton is tightly compressed into bales.

The bales of raw cotton are then transported to the yarn mills for processing into yarn. In the opening room of the mill, the bale wrappings are removed and the cotton passes through a series of machines which loosen the fibers and begin to clean the cotton. In most modern mills these machines are in a continuous series with the cotton moving through pneumatic tubes. The cotton fibers then go through the carding process.

In addition to removing fibers that are too short to be spun, carding further cleans the cotton and brings the fibers into parallel order. The carding is done by fine wire teeth attached to revolving cylinders. The fibers emerge from the card as a wide, thin web which is gathered into a soft strand about the size of a broomstick, known as card sliver. If combed yarn or thread is to be produced, the card sliver is subjected to a process called combing. In this process, the fibers pass through rollers, blades and metal teeth that remove short fibers and any remaining foreign matter and further arrange the fibers in a parallel manner. After combing, the fibers are again formed into sliver.

After carding and/or combing, the sliver is drawn, and spun. In this process, typically six or eight slivers are combined then drawn through a series of rollers and reduced to the approximate diameter of one of the initial slivers. This process is repeated two or three times to impart uniformity to the product and make the fibers more parallel. From the drawing frame, the sliver is transferred to the roving frame where it is further drawn to the approximate size of a wood pencil, given a slight twist, and wound into a package. The spinning process, which is the next step, stretches the roving into a yarn and twists it to give it strength, then winds the yarn onto a bobbin.

Several types of cotton waste are produced as cotton goes through the yarn mill. The wastes covered by HTS item 9904.30.50 are cotton comber waste, card strips, lap waste, sliver waste, and roving waste. Cotton comber waste consists of the fibers that are eliminated in the combing process and is, therefore, relatively free of impurities.

Cotton comber waste and the other wastes covered by the quota can be recycled through the spinning mill. The yarn produced using these wastes ²⁵ is generally coarser than the yarn that was being produced when the waste was initially generated. In addition to being recycled into yarn, cotton comber waste and the other wastes can be used to produce nonwoven fabric, felt, batting, wadding, padding, and articles such as swabs, cotton balls, and hygiene products such as disposable diapers and sanitary napkins. These wastes may also be processed and used to produce paper and chemical cellulose. All cotton comber waste produced by textile mills and recycled within or sold by these mills is in an unbleached condition. For a number of end uses, such as paper, medical and hygiene uses, the products made from cotton comber waste often have to be bleached to achieve purity. Bleaching may be done by the dealer that purchases the waste from the producing mill, by specialized bleachers, or by various end users.

The availability of cotton comber waste on the captive and open market has been affected by a number of factors, including the waning size of the domestic textile industry, growth in open-end spinning, ²⁶ and textile equipment modernizations. A large portion of the cotton comber waste produced in the United States is blended with short staple cotton and used to produce coarse-count yarns, primarily on open-end spinning equipment. In the past, yarn mills could not reuse as much cotton comber waste because they used the ring-spinning method of production. Until the late 1970s, very little yarn was produced in the United States on open-end equipment. With the increased use of open-end spinning, U.S. producers could use (recycle) a greater share of cotton comber waste, which increased the mills' demand for cotton comber waste. ²⁷

API feels that the increase in the recycling of cotton comber waste by producing mills has led to a short supply of cotton comber waste in the open market while demand has been rising because of the increased use of cotton comber waste by the cotton fiber papermakers, independent bleachers, and the

²⁵ When cotton waste is recycled to produce yarn, it is blended with virgin cotton.

²⁶ Increased use of open-end spinning in the United States allowed the mills to reuse the cotton comber waste to produce coarse yarns more economically than was previously done on ring-spinning equipment.

²⁷ USDA testified at the hearing that the change to open-end spinning in the United States is the primary change in the manufacturing process over the last 50 years, TR, p. 22. However, it should be noted that, by the end of 1987, the U.S. industry had 14 million ring-spindles in contrast to 518,000 open-end rotors, with yarn production of a rotor equivalent to that of 2.5 spindles. In addition to the introduction of open-end spinning, many technological developments adopted by the industry since the 1970s to comply with OSHA cotton industry standards have significantly affected the yarn manufacturing process. Most of these developments affect both open-end and ring-spinning processes.

nonwoven and surgical products industries.²⁸ The majority of the responding cotton comber waste producers reported, however, that demand for cotton comber waste in the United States has fluctuated since 1980. * * *. Associations representing textile manufacturers and textile fiber and byproduct manufacturers claim that there is sufficient domestic production of cotton comber waste based on information provided by their memberships.²⁹

U.S. tariff treatment

Import duties.--Cotton comber waste and other cotton wastes are covered by subheading 5202.99.00 of the Harmonized Tariff Schedule of the United States (HTS). Prior to adoption of the HTS, these wastes were reported in the former Tariff Schedules of the United States Annotated (TSUSA) under these item numbers:

<u>Item No.</u>	<u>Product</u>
	Card strips:
300.4010	Made from cotton having a staple length under 1-3/16 inches
300.4015	Other
	Comber waste:
300.4025	Made from cotton having a staple length under 1-3/16 inches
300.4030	Other
300.4035	Lap waste, sliver waste, and roving waste

These cotton wastes have entered the United States free of duty since the Tariff Act of 1930 was enacted.

Quotas.--Imports of cotton comber waste, along with imports of card strips, lap waste, sliver waste, and roving waste, have been limited by country-specific quotas since September 20, 1939.³⁰ The annual quotas were established by the President under section 22 of the Agricultural Adjustment Act, and are set forth under HTS subheading 9904.30.50. The quota year begins on September 20, and the total annual quota is 2,486,819 kilograms (5,482,509

²⁸ TR, pp. 28-29.

²⁹ The Textile Fibers and By-products Association presented data on U.S. exports of cotton wastes during 1986-89 to establish that there is an adequate domestic supply of cotton waste to meet current demand, prehearing brief, pp. 17-18. In its questionnaire, the Commission asked U.S. producers to provide data on their export shipments; one producer provided export data during 1986-88, and two producers provided such data for the interim period Jan.-Sept. 1989.

³⁰ The quota does not distinguish between bleached (advanced) and unbleached cotton waste.

pounds). ³¹ Within this total, a minimum quota of 1,451,392 kilograms (3,199,770 pounds) is reserved for cotton comber waste resulting from cotton having a staple length of 1-3/16 inches or more. The unreserved quota totaling 1,035,427 kilograms (2,282,739 pounds) can be filled on a country-specific basis by imports of any of the specified types of cotton waste, including comber waste, covered by the reserve quota.

Quota column A, reserved for cotton comber waste, is divided among seven countries, with the United Kingdom having 90 percent of the total. France, the Netherlands, Switzerland, Belgium, Germany, and Italy have an allocation of the remainder, none exceeding 5 percent of the total. The annual reserve quota for each country is shown in the following tabulation:

<u>Source</u>	<u>Quota amount</u>	
	<u>(kilograms)</u>	<u>(pounds)</u>
United Kingdom...	1,307,392	2,882,305
France.....	68,770	151,613
Netherlands.....	20,636	45,493
Switzerland.....	13,423	29,592
Belgium.....	11,660	25,706
Germany.....	23,082	50,886
Italy.....	6,429	14,175

Quota column B is divided among 13 sources. The individual quota amounts are shown in the following tabulation:

<u>Source</u>	<u>Quota amount</u>	
	<u>(kilograms)</u>	<u>(pounds)</u>
United Kingdom...	653,695	1,441,152
Canada.....	108,721	239,690
France.....	34,385	75,807
India and Pakistan.....	31,582	69,627
Netherlands.....	10,317	22,747
Switzerland.....	6,711	14,796
Belgium.....	5,830	12,853
Japan.....	154,917	341,535
China.....	7,857	17,322
Egypt.....	3,689	8,135
Cuba.....	2,968	6,544
Germany.....	11,540	25,443
Italy.....	3,215	7,088

³¹ Imports of cotton waste from East and West Germany are counted against the quota established for Germany; and imports from Bangladesh are counted against the quota for India and Pakistan.

The United Kingdom again has the largest share, 63 percent. Of the remainder, Japan and Canada have the next largest shares of 15 percent and 11 percent, respectively. France, India and Pakistan together, the Netherlands, Switzerland, Belgium, China, Egypt, Cuba, Germany, and Italy share the remaining unreserved quota, with none having more than 4 percent of the total.

U.S. Producers

The Commission mailed questionnaires to approximately 50 firms that were believed to be producers of cotton comber waste.³² Thirty firms responded that they produced cotton comber waste, 13 firms responded that they did not produce cotton comber waste, and 7 firms did not respond to the questionnaire.
* * *.³³

* * * U.S. producers reported acquisitions of existing mills and expanded production of cotton comber waste in 1988-89. * * *.³⁴

U.S. producers of cotton comber waste were asked in the questionnaire whether they favored continuing the current quota, liberalizing the quota, or eliminating the quota on imports of cotton comber waste. Of the producers responding to the questionnaire, * * * firms responded that they favored continuing the current quota, * * * firms favored eliminating the quota, * * * firms favored liberalizing the quota, and * * * firms either had no opinion or did not respond to the question. Some of the firms that favored continuing the quota indicated that they would support eliminating the quota if the U.S. quota restrictions on raw cotton were eliminated.³⁵ The * * * firms that supported liberalizing the quota favored globalizing the quota, and distinguishing between bleached and unbleached imported cotton comber waste. * * * firms favored eliminating the staple-length restrictions on cotton used to make imported cotton comber waste. * * * firms favoring eliminating the quota did not respond to the questions concerning eliminating the staple-length restriction, distinguishing between bleached and unbleached imported cotton comber waste, or globalizing the current quota. * * *.

³² The majority of these firms are located in the south: 29 in North Carolina, 7 in South Carolina, 6 in Georgia, 3 in Alabama, and 1 in Tennessee. North Carolina accounts for almost *** percent of total yarn production.

³³ In October 1989, Fieldcrest sold Swift Spinning Mills to Swift Acquisition Inc., a privately held Japanese firm, Textile World, October 1989.

³⁴ A Japanese firm recently began producing cotton cloth and yarn in a plant in Fresno, CA, the first cotton mill to be located in California, Journal of Commerce, Nov. 8, 1989.

³⁵ The U.S. textile industry is actively pursuing the elimination of the cotton programs which they claim have caused U.S. textile mills to pay more for raw cotton than foreign competitors. Specifically, they point out the Food Security Act of 1985, which mandates that U.S. cotton be priced competitively in foreign markets, Textile World News, Oct. 1989.

The Textile Fibers and By-Products Association (TFBA) and certain other textile associations ³⁶ felt that eliminating and/or globalizing the current quota would cause severe market disruptions, reduce returns to U.S. cotton growers by depressing prices of U.S. cotton comber waste and of the raw cotton from which it is produced, ³⁷ and allow large producers of cotton comber waste such as China, Japan, Italy, and others to fill the total quota. Since very little is known concerning foreign production of cotton comber waste, it is not clear that these countries are in fact large producers of cotton comber waste.

A majority of the responding producers stated that in their opinion U.S. suppliers of cotton comber waste could meet the demand in the United States for cotton comber waste should the quotas remain unchanged. In addition, they responded that under normal/typical market conditions they would not modify their production process or product mix to increase the amount of cotton comber waste available for sale.

The U.S. Market

Yarn spinners generally sell their excess cotton comber waste to waste dealers. ³⁸ The waste dealers contract to purchase some or all of a firm's production of waste products, usually on a quarterly basis, and frequently arrange to have the wastes shipped directly from the producing firm to the end user. Contracts usually specify a fixed price for each type of waste product during the contract period and the amount of each type of waste to be supplied. Yarn spinners typically contract with the same waste dealers each quarter. Waste dealers sell cotton comber waste to yarn spinners, pulp and paper mills, bleachers of cotton waste, other end users, and other waste dealers.

The Commission mailed purchaser questionnaires to 135 firms encompassing yarn spinners, bleachers, waste dealers, and paper/pulp companies. Although it was uncertain that all these firms purchased cotton comber waste, the Commission believed that this list of purchasers included the firms that account for the majority of purchases of cotton comber waste from U.S. suppliers. Twenty-one firms responded that they purchased cotton comber waste, 41 firms responded that they did not purchase cotton comber waste, and the remainder did not respond to the questionnaire. Waste dealers reported that * * * of their purchases in 1988 were from yarn spinners. * * *.

³⁶ Georgia Textile Manufacturers Association, Inc., American Textile Manufacturers Institute, Inc., and Alabama Textile Manufacturers Association, Inc.

³⁷ TR, pp. 78-80, and TFBA's posthearing brief, pp. 1 and 7. * * * of the responding producers stated that globalizing or terminating the quota would lower the price of cotton comber waste, which could cause a reduction in the price of lower grade short-staple cotton.

³⁸ Some large yarn spinners, such as * * *, also sell their cotton comber waste directly to end users.

Cotton comber waste is used in the production of numerous finished products. Some of the major end uses of cotton comber waste include textile reuse such as coarse and novelty yarn spinning and nonwovens, high-grade papermaking, cosmetic puffs, cotton swabs, absorbent cotton products, pharmaceuticals, health care products, batting material, and home furnishings (e.g., thermal blankets, throws, bedspreads, etc.).

The papermakers state that cotton comber waste is the preferred input for their cotton-fiber content papers.³⁹ These cotton-fiber content papers can include such grades as high-quality bond, banknote, currency, stock certificates, passports, and artist grade papers. Producers of cotton-fiber content paper purchase unbleached cotton comber waste that has a high degree of purity and strength, which they either bleach, or otherwise process themselves to avoid damaging the fiber either mechanically or chemically, or buy comber waste in the form of pure cotton comber pulp.⁴⁰ They also purchase cotton rag pulp. Currency paper for export to foreign countries is produced from unbleached cotton comber waste. The latter papers are unique in having portrait watermarks localized in each bill. Substitute materials do not provide the clarity, half tones, and shading required to reproduce a person's face in the watermark and still maintain the strength required for a banknote paper.⁴¹ U.S. currency paper is produced from rags, cleaned gin notes, and cotton pulp. Tracing paper is produced mostly from rags.
* * *.⁴²

Bleachers clean and bleach the cotton comber waste and rebale the bleached product.⁴³ Bleachers then process their bleached cotton comber waste into intermediate or final products that are then sold to end users, or they sell the bleached cotton comber waste directly to end users. Veratec, Inc., a subsidiary of International Paper, is a large U.S. bleacher that processes about * * * percent of its bleached cotton comber waste into a nonwoven fabric for use in the pharmaceutical sector as bandages, gauze, cast-

³⁹ Cotton-fiber papers contain at least 25 percent cotton fiber and in some cases as much as 100 percent.

⁴⁰ TR, pp. 29 and 56.

⁴¹ Crane & Co. experimented with substitute raw materials for nearly 2 years but found that these materials were not possible for foreign currency paper; fieldtrip interview with David Shiverick, Purchasing Manager, Crane & Co., Inc., and TR, p. 34.

⁴² Questionnaire response of Crane & Co., Inc.; fieldtrip interview with David Shiverick, Crane & Co. Raw material costs constitute about 35 percent of total production costs of cotton-fiber paper products, TR, p. 31.

⁴³ * * *.

padding, etc. ⁴⁴ * * *. Nonwoven producers buy unbleached cotton comber waste, bleach it, and use it in various surgical and hygienic applications.

According to Crane and Veratec, a reduction of rayon producing capacity in the United States has increased the demand of the bleaching industry for cotton comber waste, ⁴⁵ which is the best substitute for rayon in many products. In addition, the demand for new fabrics has increased the demand for cotton comber waste. Industry sources estimate that 75 percent of the cotton comber waste produced is used to spin coarse-count yarns, 20 percent is used in the production of nonwoven products, medical supplies, paper, etc., and 5 percent is exported. ⁴⁶

Responses to the purchasers' questionnaire indicate that waste dealers purchased * * * pounds of unbleached cotton comber waste from yarn spinners in 1988, ⁴⁷ and reportedly sold approximately * * * pounds to end users. No questionnaire respondent purchased bleached cotton comber waste; they indicated that they prefer to purchase unbleached cotton comber waste and process it internally. Questionnaire responses indicate that unbleached cotton comber waste purchases by dealers increased by * * * percent between 1986 and 1987, and then decreased by * * * percent in 1988. Reported purchases by end users from waste dealers increased by * * * percent during 1986-88.

About one-half of the purchaser questionnaire respondents indicated that they would not utilize additional shorter length cotton comber waste (i.e., less than 1-3/16 inches) if it were available, whereas about one-quarter indicated that they would utilize additional shorter length fiber if it were available (the other one-quarter of the respondents were vague on this point). All questionnaire respondents * * * purchased pure cotton comber waste (i.e., waste which contained no manmade fibers such as polyester). Nearly all of the questionnaire respondents who were waste dealers and yarn spinners stated that their cotton comber waste requirements could be met in the U.S. market. These same purchasers, however, were generally much less explicit when queried if the total domestic demand was currently being met by U.S. suppliers. Furthermore, no cotton comber waste dealers or yarn spinners estimated the size of the domestic market in their questionnaire responses. On the other hand, responding domestic papermakers, bleachers, and pulp suppliers felt strongly that they had difficulties obtaining sufficient supplies of cotton

⁴⁴ Veratec estimates that U.S. bleachers use more than 25 million pounds of cotton comber waste annually and that in 1990 the bleaching capacity will expand by more than 20 million pounds, TR, pp. 59-62.

⁴⁵ TR, pp. 61 and 63-64. However, published data of the Manmade Fiber Producers Association show rayon staple production capacity was about 465 million pounds during 1986-88, with an increase to 493 million pounds projected for the end of 1990.

⁴⁶ TR, p. 10.

⁴⁷ * * *.

comber waste.⁴⁸ One paper-industry pulp supplier estimated that about * * * pounds of cotton comber waste was produced annually, and about one-half of this was available on the market with the other one-half being reused on-site by textile mills. Crane estimated that about 40 million pounds of cotton comber waste was available on the open market and 30 million pounds was used internally by the mills. It estimated domestic open market demand to be about 60 to 70 million pounds.⁴⁹ Crane further asserted that it could almost quadruple its usage of cotton comber waste immediately, if more were available on the market.⁵⁰ About one-half of all questionnaire respondents acknowledged that they would purchase more cotton comber waste if it were available on the market.

Apparent U.S. Consumption

In the 1960s and 1970s, consumption of ELS cotton declined as versatile manmade fibers gained in popularity because cotton blends were used in a wide range of permanent-press apparel, and because low world prices led farmers to grow upland cotton or other crops instead of ELS cotton. In the 1980s, the resurgence of consumer demand for apparel and home furnishings made from natural fibers including 100-percent cotton helped to increase consumption of all raw cotton. The change in consumer demand is partly due to promotional efforts by the cotton industry to impress consumers with cotton's natural advantages, thereby creating fashion appeal. U.S. mill consumption of cotton increased from 3.0 billion pounds in 1980 to 3.5 billion pounds in 1988 (Table D-1). U.S. mill consumption of manmade fibers also increased during the period from 8.7 billion pounds in 1980 to 9.2 billion pounds in 1988. Cotton's share of total fiber consumption increased from 25.5 percent in 1980 to 27.1 percent in 1988. During 1980-88, the share of total fiber consumption accounted for by cotton increased in apparel and household uses and decreased in industrial uses (Table D-2). The greatest increase in raw cotton consumption occurred in apparel uses, where cotton's share increased 15 percentage points. In absolute terms, consumption of raw cotton in apparel uses increased from 3.3 million bales in 1980 to 4.8 million bales in 1988, whereas consumption of all textile fibers increased from 8.6 million bales in 1980 to only 9.0 million bales in 1988.

Since there have been virtually no imports of cotton comber waste during the period of investigation, U.S. apparent consumption of cotton comber waste

⁴⁸ Current and planned capacity increases by two large bleachers could potentially use 60 million pounds of cotton comber waste. Thus, API estimates that there is a 20-30 million pound shortfall between supply and demand for cotton comber waste; TR, p. 32, and posthearing brief, p. 1. USDA and API testified that they do not expect an increase in domestic production of cotton comber waste, TR, pp. 10 and 33.

⁴⁹ Crane's questionnaire response, TR, p. 32, and API's posthearing brief, pp. 1-2.

⁵⁰ Crane plans to expand its facilities and almost triple the capacity of the mill producing foreign currency paper, TR, p. 49.

is the total of U.S. producers' domestic shipments and company transfers. Reported shipments of cotton comber waste during January 1986 through September 1989, as reported by 30 firms in their questionnaire responses, were as follows (in thousands of pounds):

<u>Item</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>January-September--</u>	
				<u>1988</u>	<u>1989</u>
Shipments.....	***	***	***	***	***

Numerous explanations have been provided to explain the increase in consumption of cotton comber waste in the United States. One is a reported shortage of rayon for bleaching due to manufacturing problems and the closing of Avtex Fibers which caused many of the bleachers and nonwoven producers to substitute cotton comber waste in their operations. * * *. The majority of responding producers and purchasers stated that demand for cotton comber waste does not affect the supply; rather, demand by consumers for combed yarn products is the main factor that affects the supply of cotton comber waste. The majority of responding purchasers stated that cotton comber waste could substitute for all types of cotton wastes if the supply was adequate and the price of cotton comber waste was competitive.

The U.S. Industry

Production data for 1988 show that approximately 15 percent of all cotton yarn is combed and 85 percent is carded, an increase in the share for combed yarn from 12 percent in 1982. Prices for cotton are greater than prices for cotton comber waste. In 1989, prices of cotton were about 40 to 70 percent higher than prices for cotton comber waste; therefore producers reported consuming more of their cotton comber waste to produce yarn, usually within the same plant, than they did in 1988. Because many of the mills that were sellers of cotton comber waste have become buyers, the quantity available for other uses has been reduced.⁵¹ Census data and industry representatives indicate that mills have been increasing their production of combed cotton yarn as consumer demand for higher quality apparel and household goods has increased.⁵²

U.S. production of cotton comber waste

There are no precise estimates of the total amount of cotton comber waste produced in the United States. Parties at the hearing were asked to provide, in their posthearing briefs, calculations and estimates of U.S. production of

⁵¹ U.S. producers' reported purchases of cotton comber waste from other U.S. mills * * * percent between 1986-88 and * * * percent in interim 1989; however, their purchases of cotton comber waste from other U.S. sources * * * percent during 1986-88 and by * * * percent in interim 1989.

⁵² * * * .

cotton comber waste. Those estimates and the estimates of the Commission's staff are discussed here. Trade and Government sources contacted by the Economic Research Service (ERS) of the USDA, estimated that U.S. textile mills consumed over 7.6 million bales (approximately 3.6 billion pounds) of raw cotton in 1987/88, producing an estimated 123 million pounds of usable waste, of which approximately 56 million pounds was 100-percent cotton comber waste.⁵³

API estimated that about 70 million pounds of cotton comber waste were produced in the United States in 1987 and of that amount 43 percent was consumed internally and 57 percent was sold in the marketplace. In its posthearing brief, API estimated that 71 million pounds of cotton comber waste were produced in 1989.⁵⁴

TFBA estimated that 105 million pounds⁵⁵ of cotton comber waste were produced in the United States in 1988, of which 43 million pounds were 100 percent cotton content combed yarn, 9 million pounds were chiefly of cotton combed yarn, and 53 million pounds were chiefly polyester blends of combed yarn.⁵⁶

Information received from Census shows U.S. production of 410.2 million pounds of combed cotton yarn in 1986, 432.1 million pounds in 1987, and 407.9 million pounds in 1988.⁵⁷ Based on a weighted-average ratio of cotton comber

⁵³ USDA calculated the estimated production of cotton comber waste by applying an estimated 15 percent waste factor to the quantity of cotton used to produce combed cotton yarn in 1987. An explanation of USDA's calculations is presented in its posthearing brief, pp. 1-2. Production of cotton comber waste depends upon the setting of the combing equipment which removes the short fibers from the cotton, and industry sources reported that * * * percent is the most common amount that is removed. The data for the production of combed cotton yarn came from the Bureau of Census Report MA22-F.

⁵⁴ The estimated production of cotton comber waste was calculated by applying an estimated 15 percent waste factor to the quantity of cotton used to produce combed cotton yarn, posthearing brief, p. 2.

⁵⁵ Mr. Paschall, Chairman of the Cotton Legislation Committee and president of Norman W. Paschall Co., Inc. (a waste dealer), at the hearing estimated that the average annual U.S. supply of cotton comber waste is 100 million pounds, of which approximately 30 million pounds is consumed internally, leaving 70 million pounds to be sold in the marketplace, TR, pp. 75-77.

⁵⁶ TFBA estimated a total waste factor of 20 percent in the production of yarn from raw cotton, with the resultant cotton comber waste being 12 percent of the raw cotton used to produce combed yarns, posthearing brief, p. 9.

⁵⁷ The data for U.S. production of combed cotton yarn came from the Bureau of Census Report MA22-F.

waste to total production of combed cotton of 13.5 percent, ⁵⁸ calculated from 27 producer questionnaire responses, ⁵⁹ the Commission estimates that U.S. production of cotton comber waste was 61.6 million pounds in 1986, 65.6 million pounds in 1987, and 62.8 million pounds in 1988.

U.S. producers accounting for 83 percent of estimated U.S. production of cotton comber waste in 1988 responded that all of the cotton comber waste that they produced is 100 percent cotton. Based on 30 questionnaire responses received from manufacturers, U.S. production of cotton comber waste during January 1986 through September 1989 was as follows (in thousands of pounds):

<u>Item</u>	<u>1986</u> ¹	<u>1987</u>	<u>1988</u>	<u>January-September--</u>	
				<u>1988</u>	<u>1989</u>
Production.....	39,854	49,179	52,332	38,817	40,963

¹ Data are for * * * firms.

* * *. ⁶⁰ Production increased by 6.4 percent between 1987 and 1988, and increased by 5.5 percent in interim 1989. Twenty-three firms reported production of other cotton wastes (card strips, lap waste, sliver waste, and roving waste). Production of other cotton wastes increased from 37.6 million pounds in 1986 to 56.5 million pounds in 1988, representing an increase of 50.3 percent. ⁶¹ Such production increased to 44.3 million pounds in interim 1989, representing a 7.4 percent increase over interim 1988.

U.S. producers' domestic shipments and company transfers of cotton comber waste

Based on 30 questionnaire responses ⁶² received from U.S. producers, domestic shipments and company transfers of cotton comber waste increased from * * * pounds in 1986 to * * * pounds in 1988, or by * * * percent. Shipments increased by * * * percent in interim 1989 (Table 3). A large proportion of the cotton comber waste produced is consumed internally. Company transfers, accounting for 38 percent of production in 1988, plus some shipments to end users and waste dealers, are used to spin coarse-count yarns (at the same mill

⁵⁸ An explanation of the calculations used by the Commission is presented in app. E.

⁵⁹ These producers accounted for * * * percent of reported production in 1988.

⁶⁰ * * *.

⁶¹ * * *.

⁶² * * *.

Table 3

Cotton comber waste: Company transfers and domestic shipments by U.S. producers, 1986-88, January-September 1988, and January-September 1989

Item	1986 ¹	1987	1988	Jan.-Sept.--	
				1988	1989
Quantity (thousand pounds)					
Company transfers.....	15,631	18,676	19,744	14,789	16,076
Domestic shipments:					
To waste dealers.....	20,530	27,663	28,935	21,127	21,827
To end users ²	***	***	***	***	***
Subtotal.....	***	***	***	***	***
Total.....	***	***	***	***	***
Value (thousand dollars)					
Company transfers.....	4,199	5,721	7,155	5,488	6,093
Domestic shipments:					
To waste dealers.....	5,274	9,673	10,571	7,897	7,709
To end users.....	***	***	***	***	***
Subtotal.....	***	***	***	***	***
Total.....	***	***	***	***	***
Unit value (per pound) ³					
Company transfers.....	\$0.31	\$0.35	\$0.41	\$0.41	\$0.42
Domestic shipments:					
To waste dealers.....	.26	.35	.37	.37	.35
To end users.....	***	***	***	***	***
Average.....	***	***	***	***	***
Average.....	***	***	***	***	***

¹ Data are for * * * firms.

² * * *.

³ Calculated from the unrounded quantity figures and computed from data of firms providing data on both quantity and value of shipments.

Note.--Because of rounding, figures may not add to the totals shown.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

or transferred to other mills of the same company or other yarn spinners).⁶³ Many producers cited the advent of open-end spinning as a reason for increased internal consumption since it allowed the mills to use more of the cotton comber waste which was generated.⁶⁴ In addition, the cost of cotton comber waste is less than that for raw cotton, lowering the mills' raw material costs. Company transfers increased by 26.3 percent during 1986-88 and increased by 8.7 percent in interim 1989. * * * producers stated that increased internal consumption at their mills had prevented them from supplying cotton comber waste to a potential customer. Almost all market sales by the mills are to textile waste dealers. The majority of the producers sell their cotton waste to two or three waste dealers and do not change dealers very frequently.⁶⁵

U.S. exports of cotton comber waste

According to official statistics, Canada and Japan were the largest export markets for U.S.-produced cotton card strips and cotton comber waste in 1988,⁶⁶ accounting for 55 and 8 percent, respectively, of the total quantity of U.S. exports. The annual data provided by USDA in the Task Force report are for a year beginning October 1, since it approximates the annual quota period for cotton wastes which begins September 20. Exports of cotton card strips and cotton comber waste fluctuated from a high of 6.4 million pounds in 1982/83 to a low of 933,000 pounds in 1987/88, and then increased to a new high of 9.9 million pounds during October 1988 through July 1989.

API has stated that foreign countries compete for available world supplies of cotton comber waste, including supplies in the United States. This situation is claimed to greatly increase the competitiveness of foreign paper producers in U.S. and third country markets.⁶⁷

⁶³ Parties to the investigation report that yarn spinners use 30 to 35 million pounds of cotton comber waste annually to produce coarse-count carded yarn.

⁶⁴ Testimony of Ed Johnson, TR, p. 70.

⁶⁵ Two reasons why producers typically do not change waste dealers are: (1) the dealers know the quality of the cotton waste the producer normally sells, and (2) the waste dealers will take all of the cotton wastes the mill generates. There are four variables which seem to be central when purchasers decide whether or not to purchase cotton comber waste from a particular supplier. These factors are quality, price, supplier loyalty, and supply availability.

⁶⁶ U.S. export statistics for cotton wastes are grossly overstated. During the 1974 section 22 investigation on certain cotton, cotton wastes, and cotton products, it was discovered that these exports included substantial amounts of mill wastes and by-products other than the waste covered by this investigation.

⁶⁷ A number of responding producers and purchasers stated that * * *. Also TR, pp. 31-32, 34, and 53-54.

* * * U.S. producer reported exports, principally to * * *, during 1986-88. * * * producers reported exports to Canada in interim 1989. U.S. exports of cotton comber waste during January 1986 through September 1989, as reported in the questionnaire responses, were as follows (in thousands of pounds):

<u>Item</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>January-September--</u>	
				<u>1988</u>	<u>1989</u>
Exports.....	***	***	***	***	***

U.S. producers' end-of-period inventories of cotton comber waste

U.S. producers' end-of-period inventories of cotton comber waste during 1986-88 increased by 41.3 percent. Inventories decreased by 8.3 percent in interim 1989. Twenty-one producers provided annual end-of-period inventory data and 22 firms provided interim end-of-period inventory data. * * *. The following tabulation presents U.S. producers' reported end-of-period inventories:

<u>Period</u>	<u>Quantity</u> <u>(thousand pounds)</u>	<u>Ratio, inventories</u> <u>to U.S. shipments</u> ¹ <u>(percent)</u>
1986.....	1,176	3.6
1987.....	1,494	3.6
1988.....	1,661	3.7
January-September--		
1988.....	1,635	3.7
1989.....	1,499	3.2

¹ Computed from responses of firms providing both inventory and shipment data. Partial-year ratios are computed using annualized shipments.

The World Market ⁶⁸

There are no data available for overall world production and trade of cotton comber waste. ⁶⁹ Witnesses at the hearing were asked if they could provide information on the world supply of cotton comber waste. API's estimates supplied in its posthearing brief and the Commission's estimates are presented here. API estimated that 5 percent of the world supply of cotton

⁶⁸ Data on world consumption of raw cotton are presented in Table D-3.

⁶⁹ The international textile industry experienced an increase in demand in the second quarter of 1989 which resulted in an increase in spinning production. The spinning industry in Taiwan, Pakistan, and the United States experienced significant increases in output compared with the same period in 1988, Financial Times, Nov. 2, 1989. Indonesia has become one of Asia's largest exporters of textiles and has added 190 new plants in the last two to three years, Journal of Commerce, Nov. 29, 1989.

outside the United States is combed and 15 percent of the combed cotton results in cotton comber waste. ⁷⁰ API estimated the world supply of cotton comber waste outside the United States to be 274 million pounds. ⁷¹ The Commission estimated total annual foreign production of cotton comber waste by using certain estimates derived to calculate U.S. production of combed cotton yarn and cotton comber waste. ⁷² The Commission estimates that foreign production of cotton comber waste was 692 million pounds in 1986, 672 million pounds in 1987, and 669 million pounds in 1988. ⁷³

USDA and the Commission sent telexes to foreign posts in countries covered by the quotas and to countries believed to be potential sources of cotton comber waste requesting information on production and trade in cotton comber waste. Generally, the responses stated that data on production of cotton comber waste were not officially compiled and that export and import data were compiled for all cotton wastes. Responses received by USDA and the Commission are summarized here. The United Kingdom, which accounts for 90 percent of quota column A and 63 percent of quota column B, reportedly consumes all of its production of cotton comber waste in spinning coarse yarns ⁷⁴ and in bleaching operations for various end uses. ⁷⁵ Additionally, production of cotton yarn in the United Kingdom declined from 79,000 tons in 1980 to an estimated 43,000 tons in 1989, or by 46 percent. This decline in yarn production has likely resulted in an equal percentage decline in the United Kingdom's cotton waste production (although not necessarily cotton comber waste). ⁷⁶ Demand for cotton comber waste reportedly has risen enormously in the United Kingdom in the last year, apparently as a result of a world shortage of linters. ⁷⁷

⁷⁰ This estimate was made by waste dealers who trade worldwide and is lower than USDA's 12 percent estimate of U.S. production of combed yarn because the rest of the world's cotton yarn producers include, in addition to several developed countries, many underdeveloped or developing countries where the percentage of cotton that is combed is much lower, posthearing brief, p. 3.

⁷¹ The calculation used by API is presented in their posthearing brief, p. 3.

⁷² Estimates and explanations are presented in app. E.

⁷³ Using the estimated U.S. coefficients to estimate world production of cotton comber waste probably overstates foreign production of these products.

⁷⁴ * * *.

⁷⁵ * * *.

⁷⁶ The United Kingdom exported 1.7 million kilograms and imported 3.9 million kilograms of cotton yarn waste in 1988. Cotton yarn waste is different than the cotton wastes covered by the quotas.

⁷⁷ Linters are cotton fibers cut from cotton seeds after the initial ginning process and may substitute for cotton comber waste in some products. In the United Kingdom, linters are normally preferred to cotton comber waste in surgical uses.

Responses from foreign posts in the European Community (EC) indicated that either all production of cotton comber waste was consumed internally or was traded within the EC. French spinners reportedly purchased and used 6,800 metric tons of cotton waste in 1987, which represents 3 percent of all cotton and manmade fiber consumption. Large-volume imports of non-specified cotton waste are principally supplied by other EC countries. There were no exports of cotton waste from France to the United States in 1986-87, and only 5 metric tons in January-August 1988. West German spinning mills reportedly reuse cotton comber waste to produce coarse yarns.⁷⁸ West German exports of cotton waste are to other EC countries, primarily France, the Netherlands, and the United Kingdom.⁷⁹ Italy's annual production of cotton comber waste is estimated to be about 22,000 metric tons (equivalent to 18 percent of the country's total production of combed cotton yarn). The majority of the cotton comber waste is used in the production of open-end spun yarns. Italy's exports of cotton yarn wastes were 411 metric tons in 1988, primarily to West Germany, France, and Switzerland. Italy imported 2,839 metric tons of cotton yarn wastes in 1988.

* * *.⁸⁰ Industry sources in Pakistan stated that a rough estimate of cotton comber waste production could be derived by using a 12 percent waste conversion figure for domestic cotton use. Estimated production of cotton comber waste was 65,900 metric tons in 1985/86, 78,100 metric tons in 1986/87, 94,500 metric tons in 1987/88, and is forecast to be 102,000 metric tons in 1988/89. Pakistan exports cotton wastes primarily to Japan, the United Kingdom, the United Arab Emirates, and Italy. Exports to the United States were 178 metric tons in 1985/86, 84 metric tons in 1986/87, 136 metric tons in 1987/88, and 20 metric tons in 1988/89. Bangladesh produced about 33 tons of saw-ginned cotton waste during July 1987 to June 1988, all of which was exported to Japan.

Canada produces very little combed yarn and official trade data aggregate all cotton wastes into one category. Canada exported 207 metric tons of cotton wastes to the United States in 1987, and had no exports to the United States in 1988 through May 1989. Switzerland's production of cotton comber waste is estimated at between 3,500 and 10,000 metric tons per year.⁸¹ Swiss exports to and imports from the EC accounted for 89 percent of exports and 72 percent of imports in 1987. There were no exports to or imports from the United States in 1987.

⁷⁸ In Germany, coarser yarns are produced primarily on rotor spinning systems. The principal purpose for this type of spinning is to reduce yarn production costs in order to remain competitive with imported yarns from low-cost countries.

⁷⁹ Germany imported 1,087 metric tons of cotton waste from the United States in 1987 and 269 metric tons in January-March 1988.

⁸⁰ * * *.

⁸¹ * * *.

Sources in the Egyptian cotton industry reported that cotton comber waste represents an estimated 14 percent of its spinning industry's total cotton consumption, which was estimated at 290,000 metric tons in 1988. All of the waste is re-used domestically in open-end spinning. China exported 24,006 metric tons of cotton wastes in 1987, of which 68 percent was exported to Hong Kong. Exports to the United States in 1987 were 47 metric tons. China reportedly exported 10,195 metric tons of cotton wastes in 1988.⁸² Japan reported that most of its domestic cotton comber waste is used to produce cotton waste yarn. Japan's shipments of cotton comber waste to end users accounted for 61 percent of total shipments of the product in 1988. In 1988, Japan exported 683,641 metric tons of cotton yarn waste, principally to Belgium, Sweden, Singapore, West Germany, and Australia. During January-September 1989, Japan exported 391,391 metric tons of cotton yarn waste, principally to Taiwan, Singapore, and the United Kingdom. There were no exports to the United States during the period.

As in the United States, most countries that produce cotton comber waste are believed to recycle much of their waste to produce yarn by mixing the waste with virgin cotton. This practice has grown since the 1960s with the increased use of open-end spinning. Consequently, the amount of cotton comber waste available on the world market relative to its production is believed to have decreased significantly since the early 1970s.

API's request to USDA for a review of the quota restrictions on cotton comber waste was based in part on changed circumstances in the United Kingdom and other developed countries covered by the quota which have caused an underutilization of the quota. API noted that the cotton industries in these countries have diminished with the increased use of manmade fibers and increased reliance on imports of cotton products and that they are now alleged to be buyers rather than exporters of cotton comber waste. API, some bleachers, and some waste dealers favor eliminating and/or globalizing the quotas because the existing country quotas no longer reflect the pattern of worldwide cotton comber waste production.⁸³ API and the bleachers want the quotas to be terminated for unbleached cotton comber waste only because the cotton-fiber papermakers and bleachers use only unbleached cotton comber waste as a raw material.⁸⁴ Mr. Morse, General Manager of Veratec, testified that if the quota were globalized or terminated, both bleached and unbleached cotton comber waste would probably be imported. However, if the quota were

⁸² The U.S. Embassy in Beijing did not provide data by export market.

⁸³ However, no parties to the investigation were able to provide data to substantiate this contention.

⁸⁴ Globalizing the quota for both bleached and unbleached cotton comber waste would open the possibility of the entire quota being filled with imports of bleached cotton comber waste, which would not resolve the problem of short supply of unbleached cotton comber waste needed by the papermaking and bleaching industries, API's posthearing brief, p. 5.

terminated he predicted more bleached cotton comber waste would be imported from China, the USSR, and the United Kingdom. ⁸⁵

TFBA argues that the changes in exports from countries covered by the quotas are not significant enough to require modification of the quota for the following reasons: (1) the list of countries with import quotas was not designed as a reflection of the current importation of cotton waste; (2) in its section 22 investigation in 1974, the Commission did not recommend changing the list of importing countries; and (3) the intent of the 1939 import quotas was not to preserve the then-current level of cotton waste imports; rather it was found that these tended to render the protected programs ineffective. ⁸⁶

U.S. Imports

According to data presented by USDA, there have been no imports of cotton comber waste under quota column A quota since 1981/82. The annual data, reviewed by USDA, begins October 1, since it approximates the annual quota period for cotton wastes which begins September 20. ⁸⁷ When the Commission asked Customs officials to update imports through the latest reporting period in 1989 for both quota column A and quota column B, Customs reported that there were no imports under quota column A through the latest period in 1989. With respect to imports of cotton waste under quota column B, no imports were recorded during 1986/87, and 370 pounds of sliver waste were imported from Canada during 1987/88. For the quota period September 20, 1988 through September 19, 1989, Customs reported that 59,826 kilograms (131,892 pounds) of bleached cotton comber waste and card strips were imported from the United Kingdom. For the quota period September 20, 1989 through September 19, 1990, Customs reported that 38,507 kilograms (84,893 pounds) of cotton picker waste have been imported from Canada and 13,263 kilograms (29,240 pounds) of bleached cotton card strips have been imported from the United Kingdom. ⁸⁸

Prices

Cotton comber waste is the highest valued cotton waste byproduct because it is relatively cleaner and has a longer, more uniform, fiber length than other cotton waste products. ⁸⁹ Various climate and soil conditions, as well as different varieties of cotton, result in varying qualities of cotton. High prices of cotton comber waste are associated with cleaner, whiter cotton and

⁸⁵ TR, pp. 71-72.

⁸⁶ Posthearing brief, pp. 4-6.

⁸⁷ * * *.

⁸⁸ * * *.

⁸⁹ Other cotton wastes include card waste, sliver waste, lap waste, and sweeps.

longer, stronger fibers. ⁹⁰ Cotton comber waste is a byproduct of combing cotton to produce high-quality yarns, and is used to produce coarse-count carded yarns, often by producers of the fine yarn. ⁹¹

Waste dealers typically do not take delivery of the cotton comber waste that they purchase from yarn mills, but ship the product directly from the originating mill to their customers. ⁹² Yarn mills usually quote their selling prices f.o.b. the mill. ⁹³ Purchasing waste dealers then typically arrange freight from the mill to the dealers' customers, selling on a delivered price basis. Any end users purchasing directly from the yarn mill also arrange their own transportation. A more complete discussion of transportation factors is provided later in this report.

Questionnaire price data

The Commission requested net U.S. f.o.b. selling prices and quantities for two cotton comber waste products from U.S. producers (yarn spinners) of cotton comber waste. These two product categories account for most of the cotton comber waste produced in the United States. The price data were requested for the largest sale and for total sales of these products to waste

⁹⁰ Cleanliness of cotton comber waste is based not only on the amount of dirt and trash, but also on the degree of contamination with other fibers. Separate handling of the cotton comber waste at the plant and natural burlap packaging minimize contamination with other fibers during the manufacture and shipment of the product.

⁹¹ Comber waste is combined with raw cotton or manmade fibers to produce coarse-count carded yarns mostly in the open-end spinning process. Relative prices and availability of the cotton comber waste vis-a-vis the other fibers help determine the amounts of each input used to produce these yarns. Prior to the introduction of open-end spinning, the coarser yarns were made on the ring-spinning equipment using the same inputs that are currently used. But the high-speed production rate of open-end spinning compared to slower rates for ring-spinning allows the lower-value coarse yarns to be produced more economically than previously. Lower production cost has led to increased use of these spinning technologies in the U.S. industry during the last 15 years.

⁹² The dealer may take delivery of his purchased cotton comber waste if, for instance, his potential selling prices are not sufficiently above his contract purchase prices, or the product needs additional cleaning before his customers will accept it.

⁹³ Yarn spinners sell their cotton waste byproducts, including comber waste, on a negotiated price basis; they do not sell these cotton waste byproducts from price lists. General market conditions, product quality, and dealer service were the factors cited most frequently by producers in determining selling prices. * * *. Typical payment terms are net 10-30 days.

dealers, by quarters, during January 1986-September 1989.⁹⁴ U.S. producers were also requested to provide the specified price data for sales to any other category of customer that accounted for 20 percent or more of their sales of cotton comber waste. The two cotton comber waste products for which the selling price data were requested are as follows:

PRODUCT 1: Unbleached cotton comber waste, 100 percent cotton, 0.5 to 1.25 inches in fiber length.

PRODUCT 2: Unbleached cotton comber waste, 100 percent cotton, less than 0.5 inches in fiber length.⁹⁵

Twenty-four U.S. producers of cotton comber waste provided the requested price data for product 1 sold to waste dealers, and * * * of these firms, * * *. Four other U.S. producers reported sales of product 2 sold to waste dealers. The 28 responding U.S. producers accounted for about 94 percent of the total quantity of reported U.S. production of cotton comber waste during 1988.

The Commission also requested net purchase price data from purchasers for the two cotton comber waste products and for the bleached versions of these products. The price data were requested for the largest purchase and for total purchases of these products from the largest category of supplier--U.S. producer, waste dealer, or bleacher--from whom the responding firm purchased its cotton comber waste, by quarters, during January 1986-September 1989. Purchases from U.S. producers (yarn mills) were requested on a net f.o.b. price basis, whereas purchases from waste dealers or bleachers were requested on a net delivered price basis.⁹⁶

⁹⁴ Waste dealers specializing in cotton comber waste may offer somewhat higher prices than dealers who purchase several different waste products. Some yarn spinners indicated, however, that selling cotton comber waste along with other waste products to the same dealer helps to move the lower value cotton waste products.

⁹⁵ Because of its shorter fiber length, product 2 generally commands a lower price than product 1.

⁹⁶ F.o.b. prices were requested on cotton comber waste purchased from the mill because most of this comber waste is bought by waste dealers on an f.o.b.-mill basis. These dealers then sell the comber waste on a delivered-price basis, typically shipping the product directly from the mill to their customers. Freight charges, therefore, are generally incurred only on sales by waste dealers, not on their purchases of comber waste.

Seventeen purchasers reported the requested price data, but only for product 1 purchased from U.S. producers and from waste dealers.⁹⁷ Eight firms reported buying product 1 directly from U.S. producers and accounted for almost 52 percent of the total quantity of reported U.S. production of cotton comber waste during 1988.⁹⁸ Three of these eight firms and nine other firms reported buying the cotton comber waste product from waste dealers. Because of double counting, reported purchases from U.S. producers and from waste dealers were not combined.

Price trends

Price trends for U.S.-produced cotton comber waste are based on the selling prices reported by U.S. producers and on the purchase prices reported by U.S. purchasers by products and types of customers/suppliers during January 1986-September 1989. The quarterly selling prices were based on net f.o.b. prices of the largest sale in the quarter weighted by total sales of the cotton comber waste products 1 and 2 to waste dealers and product 1 to end users. The quarterly purchase prices were based on net f.o.b. and delivered prices of the largest purchase in the quarter weighted by total purchases of product 1 for each of the two reported categories of suppliers--U.S. producers and waste dealers. The total quantities, weighted-average prices, and indexes of the weighted-average prices of products 1 and 2 are shown in Tables 4 and 5, respectively, by type of customer for the selling price data; prices of product 1 are shown in Table 6 by type of supplier for the purchase price data.

Reported quarterly selling and purchase prices of the U.S.-produced cotton comber waste fluctuated but rose during January 1986-September 1989, ending at levels ranging from about 19 to * * * percent above initial-period prices.⁹⁹ Quarterly prices generally fell in 1986, then increased markedly

⁹⁷ The responding purchasers included 9 waste dealers, 5 yarn spinners, 2 pulp/paper manufacturers, and 1 bleacher. The waste dealers purchased their cotton comber waste primarily from yarn spinners, whereas the yarn spinners, paper companies, and the bleacher purchased their cotton comber waste exclusively from waste dealers. Based on purchaser questionnaire responses, * * * were cited most frequently as price leaders among waste dealers.

⁹⁸ Not all of the estimated total U.S. production of cotton comber waste, however, was available for sale. Based on U.S. producer responses to questionnaires, * * * percent of their production of cotton comber waste in 1988 was sold and the remainder was used by these firms to produce coarse yarns. Based on the reported share of production sold by U.S. producers during 1988, the eight purchasers who reported buying cotton comber waste from U.S. producers accounted for about 85 percent of the reported quantity of cotton comber waste that was available for purchase during this period.

⁹⁹ U.S. producers' selling prices to waste dealers increased more slowly than their prices to * * * or waste dealers' selling prices to end users. (The bulk of U.S. producers' sales of cotton comber waste were to waste dealers).
(continued...)

Table 4

U.S.-produced cotton comber waste: U.S. producers' sales quantities, weighted-average f.o.b. selling prices, and price indexes of product 1, 1/ by types of customers and by quarters, January 1986-September 1989 2/

Period	<u>Sales to waste dealers</u>			<u>Sales to end users 3/</u>		
	Quantity	Price	Price	Quantity	Price	Price
	<u>Pounds</u>	<u>Cents/</u> <u>pound</u>	<u>index 4/</u>	<u>Pounds</u>	<u>Cents/</u> <u>pound</u>	<u>index 4/</u>
1986:						
Jan.-Mar....	4,078,779	32	100.0	***	***	***
Apr.-June...	4,725,389	30	93.8	***	***	***
July-Sept...	4,150,973	27	84.4	***	***	***
Oct.-Dec....	4,452,414	27	84.4	***	***	***
1987:						
Jan.-Mar....	5,542,232	36	112.5	***	***	***
Apr.-June...	5,499,310	32	100.0	***	***	***
July-Sept...	6,317,443	36	112.5	***	***	***
Oct.-Dec....	6,436,806	42	131.3	***	***	***
1988:						
Jan.-Mar....	5,982,188	42	131.3	***	***	***
Apr.-June...	6,230,849	36	112.5	***	***	***
July-Sept...	5,692,355	37	115.6	***	***	***
Oct.-Dec....	6,120,063	33	103.1	***	***	***
1989:						
Jan.-Mar....	6,430,784	37	115.6	***	***	***
Apr.-June...	6,291,878	36	112.5	***	***	***
July-Sept...	5,861,127	38	118.8	***	***	***

1/ Unbleached cotton comber waste, 100 percent cotton, 0.5 to 1.25 inches in fiber length.

2/ The quantities shown represent total sales of the specified product of all responding U.S. producers by class of customer during the quarters requested. Prices shown are averages of the net f.o.b. selling prices of each producer's largest quarterly sale weighted by each producer's total sales quantity in that quarter.

3/ * * *.

4/ January-March 1986=100.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

⁹⁹ (...continued)

U.S. producers' selling prices of cotton comber waste to waste dealers increased by 19 percent for product 1, the majority of their product sales during January 1986-September 1989. On the other hand, U.S. producers' selling prices of product 1 to * * * rose by * * * percent during this period, while selling prices of waste dealers to end users rose by 41 percent.

Table 5

U.S.-produced cotton comber waste: U.S. producers' sales quantities, weighted-average f.o.b. selling prices, and price indexes of product 2 sold to waste dealers, 1/ by quarters, January 1986-September 1989 2/

<u>Period</u>	<u>Quantity</u>	<u>Price</u>	<u>Price</u>
	<u>Pounds</u>	<u>Cents/</u>	<u>index 3/</u>
		<u>pound</u>	
1986:			
January-March.....	578,688	23	100.0
April-June.....	452,915	23	100.0
July-September.....	454,068	17	73.9
October-December....	669,520	19	82.6
1987:			
January-March.....	833,417	32	139.1
April-June.....	1,087,201	31	134.8
July-September.....	924,500	32	139.1
October-December....	786,197	40	173.9
1988:			
January-March.....	795,593	44	191.3
April-June.....	1,278,385	39	169.6
July-September.....	952,769	34	147.8
October-December....	904,004	29	126.1
1989:			
January-March.....	1,022,026	33	143.5
April-June.....	891,632	32	139.1
July-September.....	1,167,730	34	147.8

1/ Unbleached cotton comber waste, 100 percent cotton, less than 0.5 inches in fiber length.

2/ The quantities shown represent total sales of product 2 to waste dealers of the four responding U.S. producers during the quarters requested. Prices shown are averages of the net f.o.b. selling prices of each producer's largest quarterly sale weighted by each producer's total sales quantity in that quarter.

3/ January-March 1986=100.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 6

U.S.-produced cotton comber waste: 1/ U.S. purchase quantities, weighted-average purchase prices, and price indexes, by types of suppliers and by quarters, January 1986-September 1989 2/

Period	<u>Purchased from U.S. producers</u>			<u>Purchased from waste dealers</u>		
	Quantity	F.o.b. Price	Price index <u>3/</u>	Quantity	Deliv-	Price index <u>3/</u>
		price			ered price	
	<u>Pounds</u>	<u>Cents/pound</u>		<u>Pounds</u>	<u>Cents/pound</u>	
1986:						
Jan.-Mar....	5,911,454	27	100.0	4,206,001	32	100.0
Apr.-June...	6,698,279	26	96.3	3,638,126	29	90.6
July-Sept...	6,248,156	22	81.5	5,219,543	27	84.4
Oct.-Dec....	5,998,866	24	88.9	3,540,373	30	93.8
1987:						
Jan.-Mar....	7,374,191	32	118.5	4,675,598	40	125.0
Apr.-June...	7,003,723	32	118.5	6,190,739	39	121.9
July-Sept...	7,323,678	33	122.2	5,249,902	43	134.4
Oct.-Dec....	6,998,982	35	129.6	4,642,805	49	153.1
1988:						
Jan.-Mar....	6,194,891	40	148.1	4,913,733	50	156.3
Apr.-June...	6,870,030	39	144.4	6,140,959	44	137.5
July-Sept...	6,728,458	40	148.1	7,339,811	43	134.4
Oct.-Dec....	7,319,228	34	125.9	3,562,376	41	128.1
1989:						
Jan.-Mar....	8,156,956	36	133.3	6,235,687	44	137.5
Apr.-June...	6,594,928	35	129.6	7,189,638	44	137.5
July-Sept...	6,917,341	37	137.0	7,596,551	45	140.6

1/ Unbleached cotton comber waste, 100 percent cotton, 0.5 to 1.25 inches in fiber length.

2/ The quantities shown represent total purchases of the specified product of all responding purchasers by category of supplier during the specified quarters. For purchases from U.S. producers (yarn mills), prices shown are averages of the net f.o.b. purchase prices of each purchaser's largest quarterly purchase weighted by each firm's total purchase quantity in that quarter. For purchases from waste dealers, prices shown are averages of the net delivered purchase prices of each purchaser's largest quarterly purchase weighted by each firm's total purchase quantity in that quarter.

3/ January-March 1986=100.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

beginning in January-March 1987, and peaked by January-March 1988. Prices fell during the remainder of 1988 before recovering somewhat during January-September 1989.

Reported U.S. producers' quarterly selling prices of product 1 to waste dealers were generally higher than prices of the shorter fiber product 2 sold to waste dealers. Quarterly prices of product 1 averaged about 43 percent higher than prices of product 2 during 1986, but this spread narrowed significantly thereafter, averaging about 11 percent during January 1987-September 1989. The narrowing price spread occurred as prices of product 1 increased less rapidly than prices of product 2 during January 1986-September 1989. Prices of product 1 increased by about 19 percent during this period, whereas prices of product 2 increased by almost 48 percent. Changes in prices of product 1 may have been influenced by price trends in short-staple cotton, a substitute for product 1 in some uses. Prices of this cotton product increased by 23 percent during January 1986-September 1989.¹⁰⁰

Price data on foreign-produced cotton comber waste are not available.¹⁰¹ U.S. purchasers and producers were unable to supply selling prices of cotton comber waste produced by foreign producers. USDA was also unable to obtain a price series for the foreign product; nor could any parties to this investigation identify any future or spot market commodity exchanges where the foreign cotton comber waste is traded.

Competing fiber prices

Cotton comber waste is combined in varying degrees with raw cotton, frequently short-staple cotton, and sometimes manmade fibers to produce coarse-count carded yarns where the raw cotton portion is not combed. Fashion requirements, availability of the cotton comber waste, and relative prices of cotton comber waste, raw cotton, and manmade fibers largely determine the amount of cotton comber waste used by yarn spinners.¹⁰²

¹⁰⁰ Prices of the short-staple cotton are discussed in more detail later in the price section.

¹⁰¹ In the United States, production and prices of cotton comber waste could be obtained only through questionnaire responses; public data on U.S.-produced cotton comber waste is not available.

¹⁰² Based on discussions with five large yarn spinners who use cotton comber waste to produce coarse count yarns, cotton comber waste is used in a blend with raw cotton, gin notes, and sometimes manmade fibers to lower their input costs. But these firms indicated that the shares of cotton comber waste currently blended with other fibers is at a maximum for the yarns that they produce; higher blends of cotton comber waste would adversely affect the strength and dye requirements of these yarns. The share of cotton comber waste ranged from * * *. See app. F for a detailed discussion of these and other end uses concerning substitution between cotton comber waste and other fiber products.

Other cotton waste products, ¹⁰³ rags, or manmade fibers ¹⁰⁴ may also compete with cotton comber waste as inputs into products such as high-quality paper, lint-free drafting cloths, gauze, cast wrapping, cotton balls, other pharmaceutical products, and a myriad of industrial products. Although, other than price, such factors as consumer preference, technology, and availability and stability of supplies are important considerations, cotton comber waste and other cotton or manmade fiber products also compete on the basis of price.

Raw cotton prices.--Mill-delivered prices of short-staple cotton during January 1986-September 1989, reported by the USDA, are shown on a quarterly basis in Table 7. Quarterly prices of short-staple cotton delivered to U.S. yarn mills fluctuated widely during that period. After dipping to a period low of 38 cents per pound in July-September 1986, delivered prices of cotton climbed to 69 cents per pound by July-September 1987. Prices then fell through 1988, but recovered during January-September 1989 to end at 65 cents per pound, or about 23 percent higher than at the beginning of the period. The sharp decline in cotton prices during the third quarter of 1986 was influenced by changes in the U.S. cotton program that became effective on August 1, 1986. ¹⁰⁵ Officials at USDA and representatives of * * * indicated their belief that U.S. and foreign producers of cotton overreacted by selling large quantities of cotton, anticipating prices to fall and to stabilize at much lower levels than changes in the U.S. cotton program eventually warranted. The law changing the cotton program was passed in December 1985, and reportedly led some foreign producers to begin selling cotton in large quantities during the first half of 1986 in anticipation of August 1, 1986, when the changes were first to take effect. ¹⁰⁶ These officials indicated that rebounding prices of both cotton and comber waste during 1987 and the first quarter of 1988 reflected adjustments to initial selling activities and tight supplies of cotton and comber waste in the U.S. market due to weather conditions and increases in demand.

Changes in the price of cotton influence movements in prices of cotton comber waste, a byproduct of the production of combed cotton yarn and a substitute for short-staple cotton in some uses. Fluctuating quarterly mill-delivered prices of short-staple cotton during January 1986-September 1989 (Table 7), punctuated by sharp declines in prices during July-September 1986, were generally accompanied by similar movements in mill selling prices of cotton comber waste during this period (Tables 4 and 5). ¹⁰⁷ Quarterly

¹⁰³ Cotton linters and cleaned gin notes also may substitute for cotton comber waste in some end-use products.

¹⁰⁴ Based on producer and purchaser questionnaire responses, polyester and rayon were the manmade fibers cited most frequently as substitutes for cotton comber waste.

¹⁰⁵ * * *

¹⁰⁶ * * *

¹⁰⁷ The sharply falling prices of cotton and cotton waste during August 1986 led the USDA to offer inventory protection payments for cotton, including cotton comber waste, that was held in stock as of August 1, 1986. Payment rates ranged from 39.18 to 41.43 cents per pound for cotton stocks and from

(continued...)

Table 7

U.S.-produced short-staple cotton: 1/ U.S. mill-delivered prices of short-staple cotton (composite offer prices) and price indexes, by quarters, January 1986-September 1989 2/

Period	Price <u>Cents/ pound</u>	Price index <u>3/</u>
1986:		
January-March.....	53	100.0
April-June.....	56	105.7
July-September.....	38	71.7
October-December.....	43	81.1
1987:		
January-March.....	50	94.3
April-June.....	61	115.0
July-September.....	69	130.2
October-December.....	61	115.1
1988:		
January-March.....	56	105.7
April-June.....	57	107.5
July-September.....	51	96.2
October-December.....	49	92.5
1989:		
January-March.....	52	98.1
April-June.....	58	109.4
July-September.....	65	122.6

1/ Texas-Oklahoma cotton, 29/32-inch staple length, grade 42 (strict low middling, light-spotted).

2/ Prices are based on a weekly composite of mill-delivered offer prices reported daily to the USDA by firms selling cotton to yarn mills in the southeastern United States. Prices are published by the USDA each week for the preceding Monday-Friday period.

3/ January-March 1986=100.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

¹⁰⁷ (...continued)

23.51 to 24.86 cents per pound for cotton comber waste stocks, depending on the type and quality of the cotton and of the waste.

price movements for short-staple cotton and the cotton comber waste product 1 sold to waste dealers, based on the price data from Tables 7 and 4, are shown in Figure 1.

Movements in prices of cotton comber waste were less pronounced than those for cotton.¹⁰⁸ Prices of both cotton and cotton comber waste hit period lows during July-September 1986, before climbing to period highs in July-September 1987 for cotton and October-December 1987 for cotton comber waste. Thereafter, prices of cotton and cotton comber waste generally fell during 1988 and then climbed during January-September 1989.

Other fiber prices.--Some price data of a few products that substitute for cotton comber waste in paper pulp were supplied by Cheney Pulp and Paper Company in its posthearing brief. Cheney, a pulp producer that uses a limited amount of cotton comber waste in one of its cotton pulps, reported its delivered purchase prices and total purchase quantities of unbleached cotton comber waste for each month that the firm purchased cotton comber waste during February 1976-October 1988. In addition, the firm reported price data for its purchases of the following substitutes during the same months: unbleached cotton cuttings, cotton thread waste, and cotton reginned notes. The price data are limited as Cheney reported purchasing a total of 1,168,000 pounds of cotton comber waste since 1976 (less than 0.1 percent of total U.S. production during this period), typically in single truckload shipments and reportedly only when dealers had filled orders for their regular customers. Reported delivered prices in cents per pound and quantities in thousands of pounds for Cheney's purchases of its cotton-fiber products during 1986 and 1988, are shown in the tabulation below.¹⁰⁹

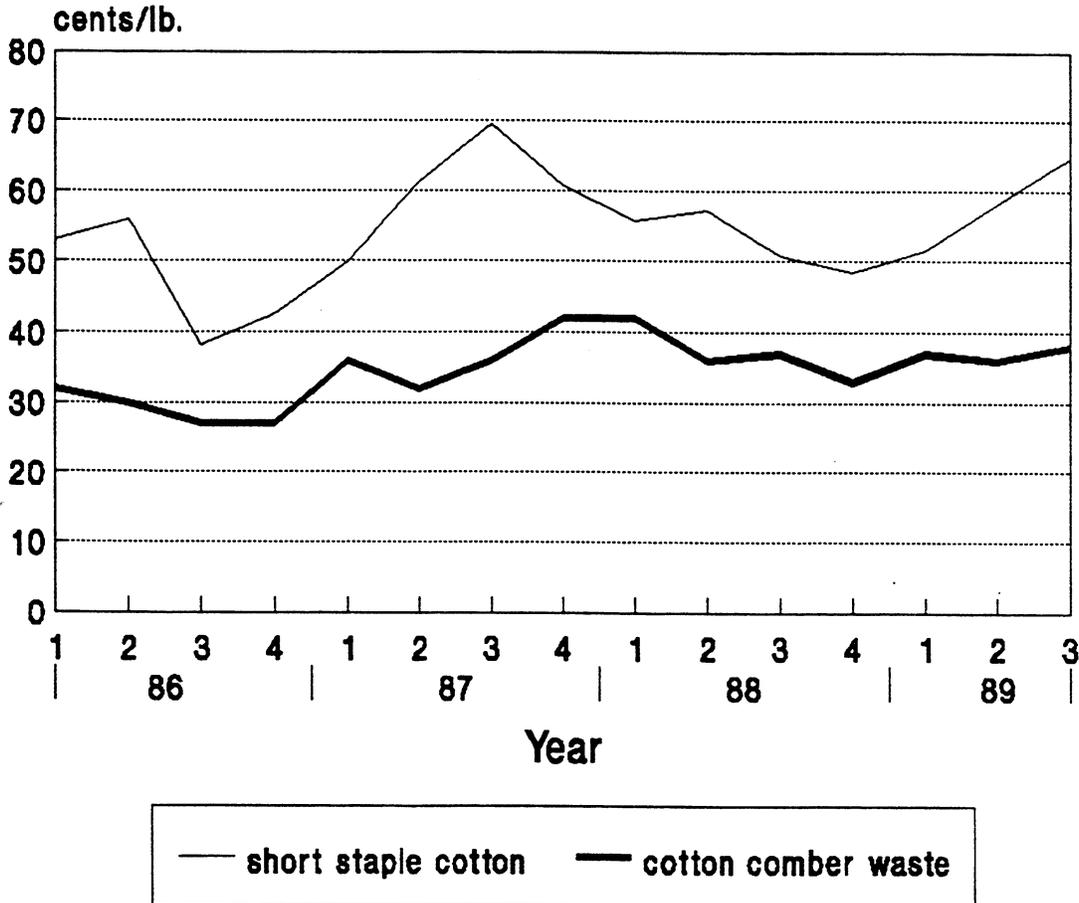
<u>Period</u>	<u>Unbleached cotton comber waste</u>		<u>Unbleached cotton cuttings</u>		<u>Cotton thread waste</u>		<u>Cotton reginned notes</u>	
	<u>Cents/ 1b.</u>	<u>1,000 lbs.</u>	<u>Cents/ 1b.</u>	<u>1,000 lbs.</u>	<u>Cents/ 1b.</u>	<u>1,000 lbs.</u>	<u>Cents/ 1b.</u>	<u>1,000 lbs.</u>
1986:								
January----	34	34	41	197	36	132	38	38
February---	29	35	54	105	32	86	35	42
March-----	29	33	53	116	23	26	28	39
July-----	29	30	53	14	25	124	26	45
1988:								
October----	44	12	29	48	23	197	18	45

¹⁰⁸ A correlation coefficient of about 0.6 was calculated between quarterly prices of the short-staple cotton and prices of the cotton comber waste product 1 sold to waste dealers during January 1986-September 1989. This coefficient value remained about the same whether the data in each series were compared for the same period, or the price of the cotton comber waste product was lagged one quarter. A coefficient of 1.0 indicates that the data series are perfectly correlated.

¹⁰⁹ Cheney reported that it did not purchase any cotton comber waste in 1987 or 1989.

Figure 1

U.S.-produced short-staple cotton and cotton comber waste: 1/ U.S. mill prices of U.S.-produced short-staple cotton and cotton comber waste, by quarters, January 1986-September 1989 2/



1/ Texas-Oklahoma cotton, 29/32-inch staple length, grade 42 (strict low middling, light-spotted). Unbleached cotton comber waste, 100 percent cotton, 0.5 to 1.25 inches in fiber length.

2/ Prices of the cotton product are based on a weekly composite of mill-delivered offer prices reported daily to the USDA by firms selling cotton to yarn mills in the southeastern United States. Prices are published by the USDA each week for the preceding Monday-Friday period.

Prices of the cotton comber waste product are averages of the net f.o.b. selling prices of each producer's largest quarterly sale weighted by each producer's total sales quantity in that quarter, reported in questionnaire responses.

Sources: Compiled from official statistics of the U.S. Department of Agriculture and from data submitted in response to questionnaires of the U.S. International Trade Commission.

Prices of the cotton comber waste purchased by Cheney were generally greater than prices of the cotton thread waste and cotton reginned motes, but typically less than prices of the cotton cuttings. Although prices of the reported fibers generally fluctuated, prices of cotton comber waste increased during the period, while prices of cotton thread wastes and reginned motes fell. Prices of the cotton cuttings increased during much of 1986, but were sharply lower in October 1988. Cotton thread wastes and unbleached cotton cuttings constitute the bulk of Cheney's cotton fiber pulp inputs and are generally the lowest and highest priced of the four reported cotton fibers, respectively. Cheney indicated at the hearing that cotton comber waste is one of the best grades of cotton waste because of its relative quality and ease of sorting, but an unreliable supply and volatile prices prevented the firm from using more of this product. ¹¹⁰

Transportation factors

Twenty-six U.S. producers and 21 purchasers of cotton comber waste responded to questions on transportation factors in the questionnaires. ¹¹¹ Twenty-five of the 26 responding producers reported selling exclusively to waste dealers, and * * * reported selling to both waste dealers and to * * *. Based on both producer's and purchaser's responses, purchasing and supplying waste dealers generally arranged freight from the originating mill to the dealers' customers. * * * reported arranging freight to its * * * customers, but on its sales to waste dealers the latter firms arranged freight from the mill. More than 90 percent of the cotton comber waste reported sold by yarn mills or reported bought by the responding purchasers was shipped by truck. ¹¹² Almost 70 percent of the total reported purchases of cotton comber waste were shipped less than 500 miles, with transportation costs reported by purchasers for total shipments averaging about 4 percent of the f.o.b. mill price. A majority of the purchasers indicated that such costs were not a major factor in choosing supply sources for their cotton comber waste.

Impact on the USDA Cotton Programs of a Termination or Modification of the Existing Quotas on Cotton Comber Waste

Introduction

Cotton comber waste is sold in a small and specialized market in the United States and other countries. ¹¹³ The Commission estimated total U.S.

¹¹⁰ TR, pp. 56-57.

¹¹¹ Responding purchasers included 12 waste dealers, 5 yarn spinners, 3 paper manufacturers, and 1 bleacher.

¹¹² The remainder was reported shipped by rail.

¹¹³ The limited amount of information on cotton comber waste makes it difficult to quantify the impact on the USDA cotton programs of any changes in the import quotas for cotton comber waste. Virtually no U.S. imports of cotton comber waste in recent years prevents any measure of an historical impact of imports on the cotton programs. In addition, the absence of data on

production of cotton comber waste in 1988 to be about 63 million pounds,¹¹⁴ or less than 1 percent of U.S. production of raw cotton of 7,397 million pounds in 1988.¹¹⁵ U.S. consumption of cotton comber waste is about equally shared between yarn spinners and other end users, primarily bleachers and paper companies. Based on estimated U.S. cotton comber waste production of about 63 million pounds in 1988, 33 million pounds were used by yarn spinners, 25 to 26 million pounds by bleachers, and the remaining 4 to 5 million pounds by the paper industry.

Foreign production of cotton comber waste is also believed to be small relative to total foreign production of cotton. The Commission estimated that foreign production of cotton comber waste could be as high as 670 million pounds or less than 2 percent of foreign consumption of raw cotton in 1988 of almost 37 billion pounds.¹¹⁶ Crane Paper Co. estimated annual foreign production of cotton comber waste at about 275 million pounds, or less than 1 percent of foreign consumption of raw cotton.¹¹⁷

Increased U.S. imports of cotton comber waste could lead to lower prices. Any reduction in the price of cotton comber waste would benefit the producers of coarse yarns, bleachers, and other consumers, but the reduction in revenue would be detrimental to the producers of the waste. The sale of cotton comber waste by producers of combed cotton yarn contributes to their net revenues. Use of cotton comber waste, sometimes by the same producers of combed cotton, to produce coarse-count carded yarns is an input cost of this yarn. There are insufficient data to determine definitively the final balance of these effects on the resulting patterns of consumption and production of cotton comber waste and raw cotton, and ultimately on the cotton support programs.

¹¹³ (...continued)

world production, trade, and prices of cotton comber waste makes it difficult to determine the level of imports if quota conditions/levels for cotton comber waste were changed or eliminated.

¹¹⁴ See app. E. Other estimates of annual U.S. production of cotton comber waste ranged from 60 million pounds (Cheney Pulp and Paper Co.) to 123 million pounds (USDA--TR, p. 9). In its posthearing submission, USDA provided alternative estimates of cotton comber waste production ranging from 76 to 86 million pounds.

¹¹⁵ Raw cotton production is reported for the crop year August 1-July 31.

¹¹⁶ The Commission estimated foreign production of cotton comber waste as if foreign producers comb the same share of their cotton yarn and extract the same portion of cotton comber waste as U.S. producers, although it is expected that less is combed.

Foreign consumption of raw cotton is based on data compiled by the International Cotton Advisory Committee.

¹¹⁷ Crane's estimate of the level of foreign production of cotton comber waste reflects a lower ratio of combed to carded cotton yarn than that for the United States.

Estimates of the impact on the USDA cotton programs of changes to the import quotas on cotton comber waste

Two scenarios of the estimated effects for three different quota levels are presented below. ¹¹⁸ Because of insufficient data to estimate them, parameters were chosen so that the estimated effects developed from both scenarios likely overstate any actual impact. The results are especially sensitive to the low price elasticity of demand for raw cotton of -0.3 that was assumed for cotton comber waste. ¹¹⁹ Both scenarios assume that the quota will be global rather than country specific and will be filled, which has not been the case in recent years. The estimated effects in both scenarios are based on raw cotton prices and on actual costs of the cotton program for upland cotton during 1988/89 (crop year) and on short-run price elasticities of demand reflecting market adjustments anticipated to occur within one year. ¹²⁰ Because demand elasticities are larger for periods longer than one year, the price effects and thus the cost to the government in subsequent years will be less than in the initial year to which the reported estimates apply.

The first scenario assumes that imports of cotton comber waste will displace U.S.-produced cotton on a pound-for-pound basis, ¹²¹ and that U.S. demand for cotton comber waste will remain unchanged from its present level. This scenario does not consider possible effects on demand and supply of related products. ¹²²

¹¹⁸ Because of uncertainty of how cotton comber waste affects the market for cotton, the staff constructed two alternate models to estimate these effects; the models rely on different methodologies.

¹¹⁹ A price elasticity of demand for raw cotton of -0.3 was based on evidence about short-run econometric estimates provided by the USDA Economic Research Service; the estimated results are sensitive to this parameter value. No elasticity estimates were available for cotton comber waste.

¹²⁰ The estimated effects of imports of cotton comber waste on prices and program costs on U.S.-produced raw cotton did not include ELS cotton, which accounted for about 2 percent of total U.S. production of raw cotton during 1988/89 crop year. USDA has separate cotton programs for upland and ELS cotton and reported that no government payments were expended for ELS cotton during 1988/89; the farm price of ELS cotton averaged \$1.15 per pound, or about \$0.09 per pound higher than the USDA target price of about \$0.96 per pound during this period. The estimated effect of the largest of the three import quota levels on upland cotton prices was less than \$0.01 per pound, which would not have triggered any increase in program costs for the ELS cotton.

¹²¹ This assumption leads to overstating the results.

¹²² The effects on raw cotton of any changes in the prices of the other cotton waste products or competing manmade fibers are not considered in scenario 1 because of lack of information on the cross-price elasticities of demand among these products. As a result, scenario 1 estimates do not capture changes in demand for raw cotton resulting from changes in relative prices of these products.

The second scenario uses a model that reflects a different and more detailed structure of the U.S. cotton market. The second set of estimates treats imported cotton comber waste as perfectly substitutable for domestically produced cotton comber waste. Moreover, the model treats cotton comber waste as imperfectly substitutable for products derived from raw cotton that does not go into combing.¹²³ The effects of greater imports on producers of products that are more substitutable for cotton comber waste would be greater than on producers of products that are less substitutable. Estimates from scenario 2 rely on assumed relationships concerning cotton and cotton products that are difficult to quantify owing to the lack of available data. A full discussion of the assumptions for both scenarios and the methodology used in scenario 2 is provided in appendix G; the methodology used in scenario 1 is described later in this section.

The impact of globalized import quota levels of 3.2 million pounds, 5.5 million pounds, and 30 million pounds were estimated under both scenarios. The 3.2 million pound quota corresponds to the USDA recommendation;¹²⁴ the 5.5 million pound quota is the current level of imports allowed under quota columns A and B.¹²⁵ The 30 million pound level is the amount of additional cotton comber waste that API indicated could readily be absorbed in the U.S. market.¹²⁶ The Commission has insufficient information to determine import levels in the absence of quotas.

Scenario 1.--For purposes of its calculations of these estimates, the Commission staff used a short-run price elasticity of demand of -0.3 for both cotton comber waste and raw cotton to estimate the reduction in the price of raw cotton resulting from three different import levels of cotton comber waste. These price reductions and the amount of raw cotton produced in 1988/89 determine increases in the cost of the cotton programs.¹²⁷ For each import level, the estimated reduction in the 1988/89 farm price of cotton and the increase in costs of USDA's cotton program for upland cotton in 1988/89 are shown in the following tabulation:¹²⁸

¹²³ Estimates derived from scenario 2, like scenario 1, also do not take into account possible substitution with manmade fibers, another factor contributing to the upward bias in the figures.

¹²⁴ The current column A quota on cotton comber waste of 3.2 million pounds is country-specific.

¹²⁵ Of the 5.5 million pounds, 2.3 million pounds are allowed under quota column B, also country specific, and can be any combination of cotton comber waste and other cotton wastes.

¹²⁶ TR, p. 32.

¹²⁷ The cotton programs support a target price for raw cotton. This price has exceeded the market price of cotton during the last several years. As a result, a decrease in the market price of raw cotton leads to higher program costs for a given target price.

¹²⁸ Based on a crop year of August 1-July 31.

Import levels of cotton <u>comber waste</u> (Millions of pounds)	Estimated reduction in farm prices of upland <u>raw cotton 1/ 2/</u> (Cents per pound)		Estimated increase in costs of the USDA program <u>for upland cotton 1/ 3/</u> (Millions of dollars)	
		(Percent- age)		(Percent- age)
3.2.....	0.081	0.1	5.8	0.5
5.5.....	0.139	0.3	10.0	0.9
30.0.....	0.750	1.4	54.3	4.8

1/ The estimated values likely overstate any impact, and are especially sensitive to the assumed price elasticity of demand for raw cotton of -0.3.

2/ Based on the 1988/89 average farm price of raw cotton of 54.8 cents per pound, reported by the USDA.

3/ Based on the USDA 1988/89 target price for raw cotton of 75.9 cents per pound, total cotton program costs of \$1,130 million, and a raw cotton crop of 7,237 million pounds during this period.

Scenario 2.--This scenario employs a mathematical model of the related markets for cotton comber waste that captures the most important structural features of the U.S. market for cotton. These features include principally (a) the nature of production of combed cotton and cotton comber waste as joint products of the combing technology; (b) the residual (non-combing) demand for U.S. raw cotton by other users, including carding and exports; and (c) the imperfect substitutability of some other cotton-derived products for cotton comber waste in a limited range of uses, such as the production of certain yarns. The model is used to assess the change in price paid by users of U.S. cotton consequent to relaxing the quota on cotton comber waste by varying degrees. Since the USDA must make up the difference between a market price received by cotton producers that is lower than the target price, this estimate measures directly the effects on the cost to U.S. taxpayers per pound of cotton produced and subsidized in the United States.¹²⁹ For each import level, the following tabulations show the estimated reduction in the 1988/89 farm price of cotton and the increase in costs of USDA's cotton program for upland cotton in 1988/89 based on the low and high values of cross-price elasticities broadly consistent with the evidence in the investigation.

¹²⁹ To use this model, a number of parameters are required. For the cross-price elasticities of demand for the component cotton products, including cotton comber waste, the staff had no quantitative basis for estimation, and so tested a range of values based on qualitative information. In addition, there is substantial uncertainty about the true values of the own-price elasticities of demand for these products. For the latter parameters, including cotton comber waste, the staff used the overall own-price elasticity of demand for cotton of -0.3; the estimated effects are especially sensitive to this value. The structural model is presented in greater detail in appendix G.

Cross price elasticity of demand for cotton comber waste and raw cotton of 0.0

Import levels of cotton <u>comber waste</u> (Millions of pounds)	Estimated reduction in farm prices of upland <u>raw cotton 1/ 2/</u> (Cents per pound) (Percent- age)		Estimated increase in costs of the USDA program <u>for upland cotton 1/ 3/</u> (Millions of dollars) (Percent- age)	
	3.2.....	0.062	0.1	4.5
5.5.....	0.106	0.2	7.7	0.7
30.0.....	0.487	0.9	35.2	3.1

1/ The estimated values likely overstate any impact, and are especially sensitive to the assumed price elasticity of demand for raw cotton of -0.3.

2/ Based on the 1988/89 average farm price of raw cotton of 54.8 cents per pound, estimated by the USDA.

3/ Based on the USDA 1988/89 target price for raw cotton of 75.9 cents per pound, total cotton program costs of \$1,130 million, and a raw cotton crop of 7,237 million pounds during this period.

Cross price elasticity of demand for cotton comber waste and raw cotton of 0.3

Import levels of cotton <u>comber waste</u> (Millions of pounds)	Estimated reduction in farm prices of upland <u>raw cotton 1/ 2/</u> (Cents per pound) (Percent- age)		Estimated increase in costs of the USDA program <u>for upland cotton 1/ 3/</u> (Millions of dollars) (Percent- age)	
	3.2.....	0.118	0.2	8.5
5.5.....	0.200	0.4	14.5	1.3
30.0.....	0.920	1.7	66.5	5.9

1/ The estimated values likely overstate any impact, and are especially sensitive to the assumed price elasticity of demand for raw cotton of -0.3.

2/ Based on the 1988/89 average farm price of raw cotton of 54.8 cents per pound, estimated by the USDA.

3/ Based on the USDA 1988/89 target price for raw cotton of 75.9 cents per pound, total cotton program costs of \$1,130 million, and a raw cotton crop of 7,237 million pounds during this period.

Additional considerations

In recent years, the import quota in any category has not been filled from the countries having quota allocations.¹³⁰ Therefore, if it is not otherwise changed, eliminating the minimum staple-length requirement for imports of cotton comber waste or distinguishing between bleached and unbleached cotton comber waste will not likely result in additional imports of

¹³⁰ According to the USDA, the country-specific allocations are responsible for keeping imports at a very low level.

cotton comber waste. If the quota were globalized, however, the effects on import levels of eliminating the staple length restriction or distinguishing between bleached and unbleached cotton comber waste are uncertain. Some countries, like China, grow a large proportion of short-staple cotton. Without a minimum staple-length requirement, additional cotton comber waste may be imported from these countries. If such countries do not comb much of their cotton, however, staple length considerations will not significantly affect import levels.

If quotas are globalized and/or enlarged but distinguish between bleached and unbleached cotton comber waste, the likely effects are also uncertain.¹³¹ Many end users prefer to purchase unbleached cotton comber waste, even though about 50 percent is eventually bleached. Veratec and Crane, large end users of cotton comber waste, indicated in questionnaire responses that they themselves must bleach their purchased cotton comber waste to assure specific performance characteristics of their end products. If the quota was divided equally between the bleached and unbleached cotton comber waste, it may prove binding for the unbleached but go unfilled for the bleached cotton comber waste.

¹³¹ The quota currently covers both bleached and unbleached cotton comber waste.

APPENDIX A
THE PRESIDENT'S REQUEST

Brunsdale

RECEIVED

THE WHITE HOUSE
WASHINGTON

99 JUL 25 P 5: 08

July 25, 1989

OFFICE OF THE CHAIRMAN

SOCKET NUMBER <div style="font-size: 2em; text-align: center;">1519</div> <hr/> Office of the Secretary Int'l Trade Commission
--

Dear Madam Chairman:

Pursuant to section 22 of the Agricultural Adjustment Act of 1933, as amended (7 U.S.C. 624), I have been advised by the Secretary of Agriculture, and I agree with him, that there is reason to believe that the quota on cotton comber waste, wherever classified in the Harmonized Tariff Schedule of the United States, may need to be terminated or modified because the circumstances requiring the proclamation of such import quota restrictions have changed.

The United States International Trade Commission is, therefore, directed to make an immediate investigation under section 22 of the Agricultural Adjustment Act of 1933, as amended, to which the Commission shall give precedence, to determine whether the quota on the above described article should be terminated or modified, including globalizing country quota allocations, eliminating the staple length restrictions on cotton used to make cotton comber waste, or distinguishing between bleached and unbleached cotton comber waste, or whether the quota should otherwise be adjusted to take account of circumstances that have changed since the quota was proclaimed. The Commission shall report its findings and recommendation to me at the earliest practicable date.

Sincerely,

The Honorable Anne E. Brunsdale
Chairman
United States International
Trade Commission
Washington, D.C. 20436

OFFICE OF THE SECRETARY
DOCUMENTS UNIT
JUL 26 12:46 PM '89
RECEIVED

APPENDIX B

THE COMMISSION'S FEDERAL REGISTER NOTICE

[Investigation No. 22-51]

Cotton Comber Waste

AGENCY: United States International Trade Commission.

ACTION: Institution of an investigation under section 22(d) of the Agricultural Adjustment Act (7 U.S.C. 624(d)) and scheduling of a hearing to be held in connection with the investigation.

SUMMARY: On July 25, 1989, the Commission received a letter from the President stating that the President had been advised by the Secretary of Agriculture, and that he agreed with the Secretary, "that there is reason to believe that the quota on cotton comber waste, wherever classified in the Harmonized Tariff Schedule of the United States, may need to be terminated or modified since the circumstances requiring the proclamation of such import quota restrictions have changed."

As directed by the President, the Commission has instituted an investigation under section 22(d) of the Agricultural Adjustment Act (7 U.S.C. 624(d)) to determine whether the quota on cotton comber waste, provided for in subheading 9904.30.50 of the Harmonized Tariff Schedule of the United States, should be terminated or modified, including globalizing country quota allocations, eliminating the staple length restrictions on cotton used to make cotton comber waste, or distinguishing between bleached and unbleached cotton comber waste, or whether the quota should otherwise be adjusted to take account of circumstances that have changed since the quota was proclaimed. Subheading 9904.30.50 includes two quota subcategories. Subcategory A establishes a "minimum quota" for certain cotton comber waste" and subcategory B establishes an "unreserved quota" for all quota-type cotton waste imports, including cotton comber waste, certain card strips lap waste, sliver waste, and roving waste. Because both subcategories include cotton comber waste, the Commission's investigation will examine imports entering under both subcategories.

The President asked that the Commission report its findings and recommendations at the earliest practicable date. The Commission

anticipates submitting its report to the President on January 25, 1990.

For further information concerning the conduct of this investigation, hearing procedures and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E, and part 204 (19 CFR parts 201, 204).

EFFECTIVE DATE: July 25, 1989.

FOR FURTHER INFORMATION CONTACT: Valerie Newkirk (202-252-1190), Office of investigations, U.S. International Trade Commission, Mary Elizabeth Enfield (202-252-1455), Textiles, Leather Products, and Apparel Division, Office of Industries, or Rick Rhodes (202-252-1322), Agriculture, Fisheries, and Forest Products Division, Office of Industries, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-252-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-252-1000.

SUPPLEMENTARY INFORMATION:

Participation in the investigation.—Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than twenty-one (21) days after the publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Service list.—Pursuant to section 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a service list containing the names and addresses of all persons or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with § 201.16(c) of the rules (19 CFR § 201.16(c)), each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Hearing.—The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on November 28, 1989, at the U.S. International Trade Commission

Building, 500 E Street SW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m.) on November 13, 1989. All persons desiring to appear at the hearing and make oral presentations should file prehearing briefs and attend a prehearing conference to be held at 9:30 a.m. on November 16, 1989, at the U.S. International Trade Commission Building. The deadline for filing prehearing briefs is November 20, 1989.

Testimony at the public hearing must be limited to a nonconfidential summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. All legal arguments, economic analyses, and factual materials relevant to the public hearing should be included in prehearing briefs. Post hearing briefs must not exceed ten (10) pages of textual material, double spaced, on stationary measuring 8½ × 11 inches, and must be submitted not later than the close of business on December 5, 1989. In addition, the presiding official may permit persons to file answers to requests made by the Commission at the hearing within a specified time. The Secretary will not accept for filing posthearing briefs or answers which do not comply with the provisions contained in this notice.

Written submissions.—As mentioned, parties to this investigation may file prehearing and posthearing briefs by the dates shown above. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before December 5, 1989.

A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the Commission's rules (19 CFR 201.8). All written submissions except for confidential business information will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any information for which confidential treatment is desired shall be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6).

This notice is published pursuant to § 204.4 of the Commission's rules (19 CFR 204.4).

By order of the Commission.

Issued: August 18, 1989.

Kenneth E. Mason,

Secretary.

[FR Doc. 89-19845 Filed 8-22-89; 8:45 am]

BILLING CODE 7020-02-M

APPENDIX C
LIST OF WITNESSES

CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

Subject: Cotton Comber Waste
Inv. No.: 22-51
Date and Time: November 28, 1989 - 9:30 a.m.

Sessions were held in the Hearing Room of the United States International Trade Commission, 500 E Street, S.W., Washington, D.C.

Government Appearances:

R. E. Anderson, Jr., Administrator,
Foreign Agriculture Service,
U.S. Department of Agriculture

Jeffrey Kahn, Office of General Counsel

Ed Glade, Economic Research Service

Harry Bryan, Foreign Agriculture Service

Geron Rathell, Foreign Agriculture Service

Diana Wanamaker, Foreign Agriculture Service

LIST OF WITNESSES:

American Paper Institute (API)
New York, New York

Irene W. Meister, Vice President,
International, API

William C. Blanker, President,
Esleeck Manufacturing Company

David H. Shiverick, Manager, Purchasing,
Crane & Company

Cheney Pulp and Paper Company
Franklin, Ohio

James H. Snyder, President

LIST OF WITNESSES:

Veratec, Inc.
Walpole, Massachusetts

Bart Morse, General Manager, Natural Fibers Group
(Accompanied by Edward R. Johnson, Purchasing Manager,
Natural Fibers Group, and
Francis J. Clark, Counsel)

Fulbright & Jaworski
Washington, D.C.
On behalf of

Textile Fibers and By-products Association (TFBA)

Norman Paschall, Former President and Secretary,
(TFBA); and Chairman, Cotton Legislation Committee

Carl W. Vogt)--OF COUNSEL

APPENDIX D
SELECTED TEXTILE FIBERS DATA

Table D-1

Textile fibers: U.S. mill consumption, by selected fibers, 1980-88

(In millions of pounds)

Year	Cotton	Manmade fibers	Other fibers ¹	Total
1980.....	3,036	8,734	127	11,897
1981.....	2,716	8,694	144	11,554
1982.....	2,488	6,775	126	9,389
1983.....	2,808	8,173	147	11,128
1984.....	2,716	7,966	150	10,832
1985.....	2,813	8,226	122	11,160
1986.....	3,256	8,652	142	12,050
1987.....	3,784	9,048	148	12,979
1988.....	3,482	9,215	149	12,846

¹/ Includes wool, flax, and silk. Data for 1988 are estimated.

Source: Compiled from official statistics of the U.S. Department of Agriculture.

Table D-2
Textile fibers and cotton: U.S. consumption, by end uses, 1980-88

End uses	1980	1981	1982	1983	1984	1985	1986	1987	1988
Apparel uses:									
All fibers (million bales)..	8.6	8.8	8.6	8.9	8.8	8.7	9.0	9.2	9.0
Cotton (million bales).....	3.3	3.1	3.0	3.4	3.4	3.6	4.4	4.9	4.8
Cotton's percentage share....	37.8	35.6	35.2	38.8	38.8	41.5	48.9	53.1	53.0
Household uses:									
All fibers (million bales)..	9.9	9.6	8.6	10.0	10.2	10.2	10.9	11.2	11.3
Cotton (million bales).....	1.8	1.7	1.5	1.8	2.0	2.0	2.3	2.5	2.5
Cotton's percentage share....	18.5	18.2	17.9	18.1	19.2	19.9	21.2	22.7	22.3
Industrial uses:									
All fibers (million bales)..	4.2	4.2	3.7	4.1	4.2	4.0	4.0	4.2	4.2
Cotton (million bales).....	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6
Cotton's percentage share..	19.5	18.2	19.1	18.2	17.0	16.7	16.6	15.9	15.4
Grand total, all uses:									
All fibers (million bales)..	22.7	22.6	21.0	23.0	23.2	22.9	23.9	24.6	24.5
Cotton (million bales).....	5.9	5.6	5.3	5.9	6.1	6.3	7.4	8.1	8.0
Cotton's percentage share..	26.0	25.0	25.3	25.7	26.3	27.5	30.9	32.9	32.4

Source: Compiled from statistics of the National Cotton Council.

Table D-3
World consumption of raw cotton, by specified countries, 1980-88

		(In thousands of 480-pound bales)									
Area and country	1980	1981	1982	1983	1984	1985	1986	1987	1988		
Americas:											
United States.....	6,326	5,657	5,183	5,850	5,659	5,861	6,784	7,834	7,578		
Brazil.....	2,597	2,619	2,615	2,574	2,670	3,002	3,358	3,623	3,812		
Mexico.....	758	729	663	571	544	601	585	628	738		
Argentina.....	418	369	428	499	497	545	588	593	517		
Colombia.....	326	273	208	192	251	307	354	395	389		
Canada.....	274	220	225	253	234	237	219	199	195		
All other.....	854	802	769	837	923	1,002	1,095	1,144	1,163		
Subtotal.....	11,553	10,669	10,091	10,776	10,778	11,555	12,983	14,416	14,392		
Western Europe:											
West Germany.....	861	785	873	952	981	992	1,029	1,079	970		
Italy.....	995	999	1,042	1,103	1,182	1,196	1,322	1,473	1,464		
France.....	788	745	756	753	735	714	714	708	668		
United Kingdom.....	295	212	207	207	204	210	224	223	200		
All other.....	2,521	2,403	2,441	2,546	2,647	2,785	3,012	3,172	3,160		
Subtotal.....	5,460	5,144	5,319	5,561	5,749	5,897	6,301	6,655	6,462		
Asia and Oceania:											
India.....	6,127	6,012	6,083	6,488	6,940	7,119	7,556	7,701	7,895		
Japan.....	3,365	3,266	3,466	3,201	3,262	3,141	3,226	3,557	3,488		
Pakistan.....	2,027	2,244	2,388	2,359	2,423	2,472	2,892	3,378	3,712		
Turkey.....	1,294	1,394	1,503	1,682	1,849	1,923	2,203	2,473	2,555		
Taiwan.....	1,085	1,028	1,136	1,184	1,288	1,379	2,411	2,076	1,702		
Hong Kong.....	904	718	700	774	733	746	932	1,109	1,071		
All other.....	4,319	4,304	4,459	4,671	4,767	5,102	5,716	6,175	6,494		
Subtotal.....	19,121	18,966	19,735	20,359	21,262	21,882	24,936	26,469	26,917		

Continued.

Table D-3--continued
World consumption of raw cotton, by specified countries, 1980-88

(In thousands of 480-pound bales)

Area and country	1980	1981	1982	1983	1984	1985	1986	1987	1988
Africa:									
Egypt.....	1,401	1,398	1,250	1,190	1,279	1,389	1,403	1,349	1,312
South Africa.....	311	297	293	301	308	335	356	353	360
All other.....	1,184	1,203	1,241	1,342	1,419	1,465	1,496	1,560	1,619
Subtotal.....	2,896	2,898	2,784	2,833	3,006	3,189	3,255	3,262	3,291
Communist:									
U.S.S.R.....	8,358	8,020	7,706	7,775	8,326	8,963	9,317	9,167	9,175
People's Republic of China..	14,663	15,815	16,598	16,119	15,938	17,655	20,035	20,514	19,960
All other.....	3,431	3,393	3,373	3,398	3,447	3,470	3,565	3,622	3,618
Subtotal.....	26,452	27,228	27,677	27,292	27,711	30,088	32,917	33,303	32,753
World total.....	65,480	64,905	65,606	66,822	68,505	72,610	80,392	84,105	83,815

Source: Compiled from statistics of the International Cotton Advisory Committee.

Table D-4

Cotton yarn: Production by selected regions and countries,¹ 1986-89

(1,000 metric tons)				
Source	1986	1987	1988 ²	1989 ³
Americas:				
United States.....	1,127	1,292	1,250	1,260
Canada.....	40	37	36	34
Cuba.....	34	37	37	36
Brazil.....	793	633	691	684
Other.....	236	240	234	216
Subtotal.....	2,230	2,239	2,247	2,230
Africa:				
Egypt.....	250	240	234	231
Other.....	180	192	197	204
Subtotal.....	430	432	431	435
Western Europe:				
Belgium.....	36	40	34	34
France.....	129	135	128	116
West Germany.....	202	223	195	180
Italy.....	185	221	212	212
Netherlands.....	8	9	7	7
Switzerland.....	55	56	52	48
United Kingdom.....	48	51	44	39
Other.....	445	471	457	443
Subtotal.....	1,108	1,206	1,129	1,079
Eastern Europe:				
East Germany.....	140	143	146	149
USSR.....	1,747	1,725	1,684	1,677
Other.....	796	820	768	764
Subtotal.....	2,683	2,688	2,598	2,590
Asia/Oceania:				
China.....	3,957	4,320	4,504	4,504
Taiwan.....	415	445	412	423
Japan.....	445	464	464	465
Korea.....	506	538	561	608
India.....	1,257	1,302	1,321	1,500
Pakistan.....	469	599	641	741
Turkey.....	437	490	507	531
Other.....	994	1,125	991	1,035
Subtotal.....	8,480	9,283	9,401	9,807
Other ⁴	292	308	334	355
World total.....	15,223	16,156	16,141	16,496

¹ Leading yarn producers and sources with quotas under HTS heading 9904.30.50.² Preliminary.³ Estimated.⁴ Includes unidentified sources not covered in other figures.

Source: Compiled from data published by the International Cotton Advisory Committee.

APPENDIX E

COMMISSION ESTIMATES OF COTTON COMBER WASTE PRODUCED
IN THE UNITED STATES AND IN THE REST OF THE WORLD

Estimates of U.S. Production of Cotton Comber Waste

The Commission staff estimated total cotton comber waste produced annually in the United States during 1986-88 based on information obtained from U.S. producers ¹ and on U.S. Bureau of the Census (Census) data on spun yarn production. ² The Commission calculated the ratio of cotton comber waste to combed cotton yarn production during 1988 for the 27 responding U.S. producers. ³ Census data were used to estimate total annual U.S. production of combed cotton during 1986-88. Applying the ratio of cotton comber waste to combed cotton production from the sample group to total estimated U.S. production of combed cotton provides an estimate of total U.S. production of cotton comber waste during each of these years. ⁴ Estimated annual U.S. production of cotton comber waste during 1986-88 is as follows:

	Millions <u>of pounds</u>
1986.....	61.6
1987.....	65.6
1988.....	62.8

Estimate of the ratio of cotton comber waste to combed cotton

The 27 responding U.S. producers reported their 1988 production of cotton comber waste and three cotton-waste ratios associated with this cotton comber waste production. The symbols representing the reported information of the 27 firms are shown below.

¹ Twenty-seven U.S. producers reported the requested information. These producers reported in their questionnaire responses production of cotton comber waste in 1988 totalling * * * pounds. They also reported in a telephone survey (1) the average share of cotton removed by their combers during 1988 and (2) their cotton wastes before and after the combing process as a share of total cotton that was combed in 1988.

² The Census product categories that contain combed cotton are combed cotton yarn chiefly of cotton fibers and polyester-cotton blended yarns chiefly of polyester fibers.

³ The reported production of cotton comber waste was used as the basis for calculating the associated amount of combed cotton yarn, especially where firms could not report combed 100 percent cotton yarn production because they produced a polyester-cotton blended yarn. As an example, some responding firms produced polyester-cotton blended yarn where the combed cotton fiber was blended with the polyester fibers after the cotton combing process but before spinning. As a result, cotton comber waste of 100-percent cotton was produced as a byproduct.

⁴ These estimates and the methodology used were discussed with U.S. producers as they were developed and incorporate their comments and recommendations.

CCW = Reported 1988 cotton comber waste production in pounds

All shares are in decimals

- x = Share of total cotton that becomes waste prior to combing
- y = Share of cotton entering combing machines that becomes waste during combing (cotton comber waste)
- z = Share of total cotton that becomes waste after the combing stage

The above information was used to calculate for each firm (1) the number of pounds of cotton (C) they used to make their combed cotton (CC) in 1988 and (2) the number of pounds of this combed cotton; the calculated cotton and combed cotton were associated with the reported production of cotton comber waste. For each firm the following calculations were made to estimate total cotton used in 1988 to produce combed cotton:

- (a) $C - xC =$ Pounds of cotton entering the comber
- (b) $CCW = y(C - xC)$
 $= yC - xyC$
 $= C(y - xy)$
- (c) $C = CCW / (y - xy)$

The expression $(y - xy)$ is the ratio of cotton comber waste to the total cotton used to produce combed cotton. The sum of this ratio, the ratio of cotton waste before combing (x), and the ratio of cotton waste after combing (z) is the share of total cotton that is cotton waste. The share of total cotton that is combed cotton is one minus this sum. Each firm's 1988 production of combed cotton in pounds was estimated with the following formula:

(d) $CC = [C][1 - (x + (y - xy) + z)]$

The following tabulation shows for each responding firm the reported amount of cotton comber waste produced during 1988, and the calculated amounts of cotton used and combed cotton produced during this period.

	Reported production of cotton comber waste in 1988 (Pounds)	Calculated cotton used to produce combed cotton in 1988 $CCW / (y - xy)$ (Pounds)	Calculated combed cotton produced in 1988 $C[1 - (x + (y - xy) + z)]$ (Pounds)
U.S. producer:			
	*	*	*

The weighted-average ratio of cotton comber waste to combed cotton is approximately 0.135 (13.5 percent), calculated as the quotient of the sum of reported production of cotton comber waste during 1988 (* * * pounds) and the sum of the calculated combed cotton production (* * * pounds) of each firm during this year.

Estimates of combed cotton yarn

Census reports annual production quantities of U.S.-produced spun cotton yarn, with separate breakouts during 1986-88 for carded cotton yarn and combed cotton yarn. Census further reports production of combed cotton yarn in the following two subcategories: (1) 85 percent or more cotton and (2) greater than 50 percent but less than 85 percent cotton (the 65/35 cotton-poly blend reportedly is dominant).⁵ In addition, Census reports annual production figures for polyester-cotton blended yarns that contain from 50 to 84 percent polyester fibers (50/50 and 65/35 poly-cotton blends are reportedly dominant),⁶ but does not show the amount of combed versus carded cotton used.⁷

The Commission estimated total annual U.S. production of combed cotton as the sum of all production in the first subcategory of combed cotton yarn, 65 percent of production in the second subcategory of combed cotton yarn, and the calculated combed cotton content in the poly-cotton blend category. The calculated total annual U.S. production of combed cotton in pounds during 1986-88 are shown in the tabulations below.

<u>1986 spun yarn reported by Census</u>	<u>Calculated combed cotton content</u>
Spun combed 100 percent cotton: 259,470,000	259,470,000
Spun combed chiefly cotton: 150,778,000 (X .65 cotton...)	98,005,700
Spun yarn chiefly polyester mixed with cotton: 1,395,065,000 (X .43 cotton X .165 combed...)	<u>98,979,862</u>
Total	456,455,562

⁵ Officials at Census and at * * * stated that almost all the combed cotton yarn in the first subcategory is 100 percent cotton. In the second subcategory, the * * * official indicated that the 65/35 cotton/polyester blend is the most popular and suggested multiplying the production figures in this category by 65 percent to estimate the cotton content of this combed yarn. * * *.

⁶ * * *.

⁷ The Commission estimated the cotton content of the poly-cotton blended yarns for each year as the simple average of the 50/50 and 65/35 poly-cotton blends, or 43 percent. For the combed portion of the cotton share for each year the staff used the same ratio as the annual combed to total spun cotton yarn ratios calculated from the reported Census figures for U.S. production of combed and carded cotton yarn, where the fiber content was chiefly (greater than 50 percent) cotton. These ratios were 16.5 percent in 1986, 15.2 percent in 1987, and 15.1 percent in 1988. * * *.

<u>1987 spun yarn reported by Census</u>	<u>Calculated combed cotton content</u>
Spun combed 100 percent cotton: 308,858,000	308,858,000
Spun combed chiefly cotton: 123,219,000 (X .65 cotton...)	80,092,350
Spun yarn chiefly polyester mixed with cotton: 1,488,305,000 (X .43 cotton X .152 combed...)	<u>97,275,615</u>
Total	486,225,965

<u>1988 spun yarn reported by Census</u>	<u>Calculated combed cotton content</u>
Spun combed 100 percent cotton: 299,232,000	299,232,000
Spun combed chiefly cotton: 108,700,000 (X .65 cotton...)	70,655,000
Spun yarn chiefly polyester mixed with cotton: 1,468,706,000 (X .43 cotton X .151 combed...)	<u>95,363,081</u>
Total	465,250,081

Estimates of cotton comber waste

The Commission estimated total annual production of cotton comber waste during 1986-88 by multiplying the ratio of cotton comber waste to combed cotton times the annual estimates of total U.S.-produced combed cotton during this period. Estimated total U.S. production of cotton comber waste in pounds during 1986-88 is shown in the tabulation below.

	<u>Estimated combed cotton production</u>		<u>Estimated cotton comber waste production</u>
1986	456,455,562	(X .135...)	61,621,501
1987	486,225,965	(X .135...)	65,640,505
1988	465,250,081	(X .135...)	62,808,761 ¹

¹ Independent of this estimate, parties to the investigation reported annual U.S. consumption of cotton comber waste ranging from 59 to 64 million pounds, with yarn spinners accounting for about 30 to 35 million pounds, bleachers for about 25 million pounds, and paper companies for about 4 million pounds.

Because the category of chiefly polyester yarn mixed with cotton is so large, estimates of total cotton comber waste production could vary by several million pounds depending on the specific cotton content and/or combed to carded ratio that is used.

Estimates of Foreign Production of Cotton Comber Waste

The Commission staff estimated total annual foreign production of cotton comber waste during 1986-88 based on cotton yarn production data, by country, reported by the International Cotton Advisory Committee, and on the preceding estimates of U.S. production of combed cotton yarn and cotton comber waste. This approach assumes that foreign producers of cotton yarn produce similar proportions of combed and carded yarn as U.S. producers, and that foreign producers of combed cotton yarn remove the same share of cotton comber waste as U.S. producers. The Commission does not have information concerning foreign production of cotton yarn to determine the share of combed versus carded, or the amount of cotton comber waste removed in the combing process.⁸ Based on their level of development, however, it is likely that the major producing foreign countries comb a smaller share of their cotton yarn than the United States.⁹ As a result, the Commission estimates of foreign production of combed cotton yarn and cotton comber waste, based on the U.S. share of combed yarn to total spun cotton yarn production and the share of cotton comber waste to combed yarn production, probably overstate foreign production of these products. Foreign production of spun cotton yarn and estimated annual foreign production of combed cotton yarn and cotton comber waste during 1986-88 are shown in pounds in the following tabulation.

	<u>Foreign production of spun cotton yarn 1/</u>	<u>Estimated foreign production of combed cotton yarn</u>	<u>Estimated foreign production of cotton comber waste 2/</u>
1986	31,076,042,600 (X .165 ...)	5,127,547,029 (X .135 ...)	692,218,849
1987	32,769,174,400 (X .152 ...)	4,980,914,509 (X .135 ...)	672,423,459
1988	32,828,698,600 (X .151 ...)	4,957,133,489 (X .135 ...)	669,213,021

1/ Production data reported by the International Cotton Advisory Committee.

2/ These estimates do not include cotton comber waste produced in combing cotton for chiefly polyester yarns mixed with cotton.

⁸ Responses to telexes sent to foreign posts by USDA and the Commission, requesting information on production and trade in cotton comber waste were too limited to derive the amount of world production of cotton comber waste or combed cotton yarn.

⁹ The five largest foreign cotton-yarn producing countries--China, the U.S.S.R., India, Brazil, and Pakistan--account for 60 percent of foreign production of cotton yarn.

Not all of the foreign-produced cotton comber waste was necessarily available for export during the years shown, because some may have been used captively by the foreign producers and by other industries in the producing countries. Actual exports of foreign-produced cotton comber waste are not known. ¹⁰

¹⁰ U.S. producers may use approximately 50 percent of their cotton comber waste and sell the remainder. It is not known if this same proportion might apply to foreign producers, nor what share of cotton comber waste sold might be exported.

APPENDIX F

END USERS' VIEWS CONCERNING SUBSTITUTABILITY
BETWEEN COTTON COMBER WASTE AND OTHER PRODUCTS

Use of cotton comber waste in the production of coarse-count yarns

* * * * *

APPENDIX G

ASSUMPTIONS AND METHODOLOGY USED TO ESTIMATE THE EFFECTS ON THE
USDA COTTON PROGRAMS OF A TERMINATION OR MODIFICATION OF THE
EXISTING QUOTAS ON COTTON COMBER WASTE

Plausibility of Assumptions in Scenario 1

Filling of the quotas

Eliminating or globalizing U.S. quotas on imports of cotton comber waste will have an uncertain effect on the level of imports and hence on the total U.S. supply. There have been virtually no imports of cotton comber waste in at least the last several years. Crane estimated foreign production of cotton comber waste of almost 275 million pounds,¹ or approximately 4 percent of the 1988 U.S. raw cotton crop, but indicated that a large (although unspecified) proportion of this production is not available for export.²

Although the country-specific quota allocations have hindered U.S. imports of cotton comber waste,³ reported tight world supplies may also limit U.S. imports if the quotas are eliminated or globalized.⁴ Ed Johnson of Veratec indicated at the hearing that any increase in imports would be a gradual process; he cited current strong European demand for U.S. cotton comber waste that has bid up the U.S. price of cotton comber waste from 38 to 58 cents per pound in the last six months.⁵

Perfect substitution between cotton comber waste and raw cotton

Cotton comber waste substitutes for raw cotton and other fibers in some end products using these products as inputs, but the degree of substitutability varies according to relative prices and the different end uses. Five yarn mills that blend cotton comber waste with other fibers to produce coarse-count yarns report widely different blend ratios depending on the end product.⁶ These firms generally indicated that they currently produced at the maximum cotton comber waste blend ratios, based on physical product requirements of the various yarns.⁷ As a result, lower prices of cotton comber waste would not encourage these firms to substitute more cotton comber waste for the cotton or polyester fibers that they currently use.

In the production of nonwoven textile products and papers, the availability of close substitutes for cotton comber waste appears more limited

¹ The Commission staff estimates that foreign production of cotton comber waste could be as high as 670 million pounds if foreign producers comb the same share of their cotton yarn and extract the same portion of cotton comber waste as U.S. producers.

² Foreign producers of cotton comber waste reportedly use a significant portion of the byproduct to produce coarse-count carded yarn, and other end users in the country of origin also bid for the available supply.

³ TR, pp. 10-11.

⁴ Based on questionnaire responses of * * * and * * * who favor elimination of the quotas * * *.

⁵ TR, pp. 65-66.

⁶ * * *.

⁷ * * *.

than for yarns. Veratec and Crane Paper Co. reported that in some important uses of cotton comber waste, there are reportedly no close substitutes for the cotton comber waste used.⁸

The available information suggests that cotton comber waste would substitute for raw cotton at far less than the pound-for-pound rate assumed in the model calculations. Therefore, the impact on the demand for cotton and on cotton prices from imports of cotton comber waste based on the methodology of scenario 1 would be less than that shown in the scenario-1 tabulation.

No changes in demand for cotton comber waste

U.S. producers and purchasers reported in their questionnaire responses that demand for cotton comber waste has fluctuated during 1980-89, with some firms citing increased demand during the period. U.S. producers and purchasers indicated repeatedly in their questionnaire responses that increased use of open-end spinning has led to greater use of cotton comber waste by yarn spinners in the last several years. Although several waste dealers and yarn spinners reported that current supplies of cotton comber waste are sufficient to meet demand, large end users, including some yarn spinners,⁹ and other waste dealers indicated that supplies are currently tight and prices have been increasing.¹⁰ These firms expect demand to increase significantly in the next few years. There are some indications that increased demand may readily absorb larger supplies of cotton comber waste, including any increase in U.S. production as well as imports.¹¹ Such demand could moderate the downward pressure on prices of cotton comber waste in the U.S. market that would accompany an increase in supply of the product from imports. In turn, any impact on the demand for cotton of lower priced cotton comber waste would be diminished, thereby reducing the effects shown in the scenario-1 tabulation.

Veratec stated at the hearing that it is currently expanding its bleaching facilities to meet increased future demand for bleached fibers, including cotton comber waste. Mr. Johnson of Veratec cited the firm's concern about a shrinking supply of U.S.-produced cotton comber waste during

⁸ See app. F for a detailed discussion of comments by Veratec and Crane Paper Company.

⁹ * * *.

¹⁰ Along with increases in reported U.S. production of cotton comber waste during January 1986-September 1989, the reported price data show that selling prices of cotton comber waste have risen during this period, with increases ranging from 19 to * * * percent.

¹¹ The U.S. production of cotton comber waste will not adjust much to changes in demand for the product. According to questionnaire responses of U.S. producers and purchasers, the supply of U.S.-produced cotton comber waste depends on the production of combed cotton yarn, which, in turn, depends on the demand for fabrics using combed cotton yarn. Respondents report that an increase in the price of cotton comber waste will not increase total supply because its price is not an incentive to produce the product. In the long run, some supply response to changes in price could be expected, although it is probably limited.

the last few years since the U.S. textile industry has contracted and yarn spinners have been using more of the cotton comber waste in their open-end spinning operations.¹² In addition, Mr. Morse of that firm identified increased demand for cotton comber waste because of a rayon shortage resulting from the closing of the Avtex plant.¹³

Crane Paper Company indicated at the hearing and in its questionnaire response that it plans to use 11 to 20 million more pounds of cotton comber waste annually in the next 5 years, compared to its current yearly usage of 4 million pounds. Crane reported planning to expand its production capacity for foreign currency paper, in which it asserts that only cotton comber waste can be used. Cheney Pulp indicated at the hearing that it could also use a substantial amount of cotton comber waste in its cotton pulp if supplies and prices of the product were more stable.¹⁴ In addition, Mr. Snyder, president of Cheney, noted that recently the firm was not able to assure a customer delivery of increased orders of cotton pulp because of limited supplies of cotton fiber inputs. * * *

Assumptions and Methodology Used in Scenario 2

Assumptions

Structure--Demand for U.S. cotton may be divided between demand for cotton to be combed and demand for cotton in other domestic and foreign uses. The model treats these two components of demand separately and assumes that the sum of demand in both uses at the equilibrium market price equals the quantity of U.S. cotton produced at the USDA target price.

In the production of combed cotton joint products are produced in technically fixed proportions, namely cotton comber waste and other products (chiefly combed cotton, but several minor products as well). The model assumes that structurally the cotton combing industry receives prices for these two classes of joint products, which, taken together in competitive equilibrium, cover the cost of purchasing raw cotton as an input. Moreover, the model treats separately U.S. demand for cotton comber waste and for the other joint products. At market equilibrium prices, the combing industry covers its cost and consumers satisfy their demands.

Finally, testimony suggests that cotton comber waste is blended with other cotton-derived products in some uses, such as coarse-count carded yarn and some nonwoven cotton products. Evidence also suggests that in some of these uses, downstream industries would alter the proportions in favor of whichever input might become relatively cheaper. Thus, other cotton-derived products and cotton comber waste are, to some extent at least, imperfectly substitutable in downstream uses. The model captures this relationship by making the quantity demanded of cotton comber waste dependent on the price of raw cotton (in addition to its own price), and vice-versa.

¹² TR, pp. 62 and 65.

¹³ * * *.

¹⁴ TR, pp. 55-57.

Structurally, the model assumes that specific quota levels tested would be filled. This is equivalent to assuming that the U.S. price for cotton comber waste would remain above the world price even if all newly allocated quota export rights were exercised. Furthermore, imported cotton comber waste is treated as if it is fully homogeneous with domestically-produced cotton comber waste.

Model parameters.--The model requires values for several parameters before estimates can be generated. Among these are parameters measured directly in the investigation, parameters estimated by other researchers, and other parameters about which less certain inferences are drawn based on pertinent qualitative information. In the last case, sensitivity analysis was performed by using ranges of parameter values broadly compatible with known facts. Uncertainty in the precision of the estimates reflects the underlying uncertainty about correct parameter values.

Specifically, the model requires a measure of the value of cotton comber waste and the value of other products jointly produced from a unit of raw cotton. Based on evidence acquired in the investigation, the model assumed that the value of cotton comber waste produced from a unit of cotton accounted for * * * percent of the value of the raw cotton.¹⁵ The model also requires the share of U.S. raw cotton that is used by the combing industry. Based on questionnaire responses, approximately 7.5 percent of raw cotton is combed into combed cotton, cotton comber waste, and other joint products.

The model also requires specification of the market price of raw cotton in the United States. Based on the investigation, the price of raw cotton is about 55 cents per pound. In addition, the model requires specification of the volume of cotton comber waste currently consumed in the United States. The investigation showed this amount to be approximately 63 million pounds.

Among other parameters required are the relaxed quota amounts established by alternative policies. The model estimated the effects of quotas of 3.2 million pounds, 5.5 million pounds, and 30 million pounds, as explained in the text.

Finally, the model requires a set of market response parameters. These parameters fall into two classes: own-price demand elasticities and cross-price demand elasticities. Based on short-run econometric estimates provided by the USDA Economic Research Service, we assumed the elasticity of overall demand for cotton in the United States to be -0.3.¹⁶ Furthermore, because of an absence of evidence about whether specific components of cotton demand are either more or less elastic than other specific components, we assumed that demand elasticities for cotton comber waste, other combed cotton joint

¹⁵ By weight, approximately 11.5 percent of raw cotton that is combed ends up as cotton comber waste. The U.S. price of cotton comber waste is about * * * cents per pound. Thus the cotton comber waste produced from one pound of cotton is worth about * * * cents. Since a pound of raw cotton sells for about 55 cents, the cotton comber waste accounts for about * * * percent of the value.

¹⁶ Their source was Wohlgenant, Michael K. "Impact of an Export Subsidy on the Domestic Cotton Industry". Texas Agric. Expt. Station Bulletin B-1529, April 1986.

products, and other cotton uses are all equal to each other.¹⁷ By doing so, the model makes the statistically unbiased and neutral assumption that demand elasticities for each cotton component equal the average elasticity of all components taken together.

For the cross-price elasticities of demand between cotton comber waste and other cotton-derived products, and vice-versa, the staff tested a range of small values that it believes to be broadly consistent with available information. In particular, the staff tested a cross-price elasticity of demand for cotton comber waste with respect to cotton between zero and the own-price elasticity of demand for cotton comber waste. The staff does not believe it plausible that the cross-price elasticity exceeds the own-price elasticity in absolute value. The cross-price elasticity of cotton in non-combing uses with respect to the price of cotton comber waste was selected in each case to be consistent with expenditure shares and the other cross-price elasticities.¹⁸

Methodology

Qualitative behavior of the model.--Relaxation of the quota on cotton comber waste affects the cost to the government of maintaining the cotton target price through two channels.

First, demand for U.S. raw cotton used for combing declines when the price of cotton comber waste falls consequent to the relaxed quotas. For any given price of raw cotton, the U.S. combing industry must receive a higher price for other joint products of combing, chiefly combed cotton, to cover their production costs and offset the reduction in the price they receive for cotton comber waste. A higher demand price for combed cotton and other joint products of combing is achieved by purchasing less raw cotton to be combed, thereby reducing the supply of combed cotton.

¹⁷ The component demand elasticities are consistent with the elasticity of overall demand. The component demand elasticities exceed somewhat the elasticity of overall demand of -0.3, because the latter value was estimated without holding fixed the price of cotton comber waste.

¹⁸ Specifically, if cotton comber waste and other (non-combed) cotton form a separable composite good, the Hicks-Marshall condition indicates that,

$$(a) \quad \eta_{wo} = v_o * (\sigma + \eta_c)$$

$$(b) \quad \eta_{ow} = v_w * (\sigma + \eta_c)$$

where η_{wo} , for instance, is the uncompensated cross-price elasticity of U.S. demand for cotton comber waste with respect to the U.S. demand (market) price of raw cotton, v_w is the expenditure share on cotton comber waste out of expenditure on the composite good comprised of cotton comber waste and other cotton not used for combing, σ is the Hicks-Allen partial elasticity of substitution between cotton comber waste and other cotton not used in combing (a positive number for net substitutes), and η_c is the elasticity of demand for the composite good (a negative number). Therefore the ratio of cross-price elasticities will equal the ratio expenditure shares.

Second, the new, lower price of cotton comber waste also results in less U.S. demand for cotton not used for combing because such cotton is imperfectly substitutable for cotton comber waste. Demand declines whenever the prices of substitute products fall.

The first and second effects reinforce each other to result in less overall demand for U.S. raw cotton, thus lowering the demand (market) price. The supply of U.S. raw cotton, however, is fixed by the target price which establishes the incentives faced by cotton producers. Consequently, to maintain the target price, any reduction in the demand price for cotton must be made up, dollar for dollar, by larger government subsidies. The magnitude of the increased unit subsidies required to do so are calculated and reported by the model.

Mathematical representation of the model.--The model is implemented through a single equation that solves the requisite comparative statics exercise. To derive that equation, two basic market equilibrium conditions (corresponding to the U.S. market for combing cotton and the overall U.S. market for raw cotton) were differentiated with respect to Q , the effective quota level on cotton comber waste. The initial quota on cotton comber waste is assumed to be effectively zero because of assignment to currently non-exporting countries or for the assigned country-specific, quota levels are too limited to be traded economically.

The basic equilibrium conditions are,

$$(1) \quad P_w(C_w + Q, P) + P_{nw}(C_w) = P$$

$$(2) \quad C_w + C_o(P, P_w(C_w + Q, P)) = C_T$$

where the notation is defined as follows:

P_w : U.S. price of cotton comber waste

P_{nw} : U.S. price of other (non-cotton comber waste) joint products
of combing

P : U.S. price of raw cotton

C_w : U.S. production of cotton comber waste (which equals U.S.
production of other joint products of combing, and the
amount of raw cotton used by the combing industry)

C_o : U.S. consumption of raw cotton for uses other than combing

C_T : Total U.S. production of raw cotton, fixed by the target price

Q : The quota level (assumed binding) on cotton comber waste imports

Condition 1 indicates that the price received for joint products of combing must, in competitive equilibrium, cover just the cost of purchasing the raw cotton input into the combing industry. This condition is the familiar "vertical addition" of demand curves facing joint products. The prices P_w and P_{nw} are written as inverse demand functions. P_w depends on the total consumption of cotton comber waste and on the price of raw cotton (from

which substitute products are derived). P_{nw} depends on the quantity of raw cotton processed into other joint products of combing.

Condition 2 indicates that the sum of U.S. raw cotton demanded for combing and other (noncombing) uses must just equal the quantity of raw cotton produced under the target price program. The latter amount, C_T , is invariant to changes in the quota level. The demand for raw cotton in non-combing uses, C_o , depends on its own price and the price of cotton comber waste (which is a substitute product), and includes export demand.

By differentiating conditions 1 and 2 simultaneously, the reduction in the market price of raw cotton, P , consequent to a one-unit increase in the (assumed binding) cotton comber waste quota may be found. That solution is given by equation 3,

$$(3) \quad \hat{P}/dQ = A/B$$

where,

$$(4) \quad A = (\alpha_w \beta_w - \alpha_{nw} \beta_o \eta_{ow}/\eta_{nw}) / [\eta_w (C_w + Q)]$$

$$(5) \quad B = \beta_w (\alpha_w \eta_{wo}/\eta_w + 1) \\ + \beta_o [\alpha_w \eta_o/\eta_w + \alpha_{nw} \eta_o/\eta_{nw} - \alpha_{nw} \eta_{ow} \eta_{wo}/(\eta_w \eta_{nw}) \\ + \eta_{ow}/\eta_w]$$

and the initial notation used in equations 3, 4, and 5 is defined as follows:

α_w : P_w/P

α_{nw} : P_{nw}/P

β_w : C_w/C_T

β_o : C_o/C_T

η_w : elasticity of U.S. demand for cotton comber waste in the United States

η_{nw} : elasticity of U.S. demand for other (non-cotton comber waste) joint products of combing

η_o : elasticity of U.S. demand for raw cotton in uses other than combing

η_{wo} : cross-price elasticity of U.S. demand for cotton comber waste with respect to the U.S. price of raw cotton

η_{ow} : cross-price elasticity of U.S. demand for raw cotton (in non-combing uses) with respect to the U.S. price of cotton comber waste

\hat{P}/dQ : percentage change in the U.S. demand (market) price for raw cotton induced by a one unit increase in (assumed binding) quota rights on cotton comber waste

Cross-price elasticities are positive whereas own-price elasticities of demand are negative.

Finally, the effect on the cost of maintaining the target price, in dollars, is estimated using equation 6,

$$(6) \quad \text{subsidy} = \hat{P}/dQ * Q * P * C_T$$

