

MALR
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Ministry of Agriculture & Land Reclamation
US Agency For Intl. Development
Agriculture Policy Reform Program
Reform Design and Implementation

PN-ACT-184

وزارة الزراعة واستصلاح الأراضي
الوكالة الأمريكية للتنمية الدولية
مشروع إصلاح السياسات الزراعية
وحدة تصميم وتنفيذ السياسات

Ministry of Agriculture and Land Reclamation

AGRICULTURE POLICY REFORM PROGRAM

Reform Design and Implementation Unit (RDI)

USAID CONTRACT NO. 263-C-00-97-00005-00

RDI REPORTS



APRP

Reform Design and Implementation Unit

*Development Alternatives Inc. Group: Office for Studies & Finance, National Consulting
Firm Development Associates, Cargill Technical Services, The Services Group, Training
Resources Group, Purdue Universities, University of Maryland*

Report No. 36

*The Inivitational Trip
to California and
Arizona (CALCOT)*

A Trip Report

October 11-20, 1997

**A report on the trip to California and
Arizona (Calcot) in the period between
October 11 thru October 20, 1997
Ministerial Decree No.1268, 1997**

1- On Monday September 9, 1997, H.E. Dr. Youssuf Wally, Deputy Prime Minister and Minister of Agriculture and Land Reclamation approved the invitational travel of two members of APRP Program Planning Committee (P.P.C.), two chairmen of Cotton Holding Companies and two senior MALR staff, in addition to APRP member. The trip was funded by USAID in the framework of APRP/DAI training plan. The delegation who traveled included.

- Dr. Bakir Oteifa - MALR Advisor to the Minister
- Dr. Taha Sharkawy - Under Secretary for Plant Quarantine
- Mr. Mamdouh Abdel Sattar, Deputy Chairman, Cotton and International Trade HC
- Mr. Bahee Ahmed el Sherif - Chairman, El-Wadi Cotton Ginning and Trade Co.,
- Mr. Hamed Shiati - Private Sector
- Mr. George Kondos - Administrator of Agriculture Policy Reform Program.

2- The purpose of the trip was to:

- Observe and analyze CALCOT methods for marketing US Pima and Hirsultum cotton and for obtaining the best prices for producers and exporters on the spot and futures markets.
- b) Observe and analyze CALCOT cooperative organization;
- c) Visit ginning mills, spinning mills, and fumigation facilities to observe procedures for maintaining purity of lint, obtaining high out-turn ratios, pest and disease free lint exports, and high quality yam of varying technical characteristics.
- d) Observe cotton production in Arizona under sub-surface drip irrigation and mechanical cultivation and harvesting operations; and
- e) Identify US investors interested in pursuing joint ventures in cotton production and processing in Egypt.

3- Three members of the group (Mr. Shiati, Dr. Oteifa, and Mr. Kondos) visited Washington, DC on their way back to Egypt. The objectives of the visit were to:

-) Brief the Agricultural Attaché and the Commercial Attaché at the Egyptian Embassy on the outcome of the mission and arrange for follow-up as needed;
- b) Meet with Egyptian specialists and representatives at the World Bank to discuss required expertise and funding for follow-up activities;
- c) Meet with OPIC representatives to discuss incentives and guarantees for American investors in the Egyptian cotton sub-sector;
- d) Meet with ExIm Bank representatives to discuss potential financing options for American investors in the Egyptian cotton sub-sector; and
- e) Meet private sector agribusiness specialists to discuss technical and financial implications of follow-up actions to make use of the outcomes of the travel (A separate report on the trip attached)

➔ **Annex I**

4- According to the itinerary prepared by both APRP/DAI and Mr. Adel Boutros of Calcot. The delegate spent five days observing Calcot's different operation, facilities, farms of some members, a spinning mill at Fresno, ginning mill at Arizona. The fumigation facilities at the port of Los Angeles, and the USDA classing office.

4.1 What is Calcot?

Calcot is one of the largest handlers of U.S. cotton. It annually markets about 1.7 million bales of cotton to customers in the U.S. and over 30 foreign countries on behalf of her 3200 members. Calcot's worldwide reputation is based on the highest quality cottons, including the San Joaquin Valley's premium Acala cotton, upland varieties from desert regions of Southern California and Arizona, and the extra-long staple American Pima.

Calcot utilizes experienced full-time classers year round to refine the broad ranges of USDA cotton classification for members' benefits, as well as assisting textile mills in selecting weaving lots of cotton..

Each bale in the calcot system is identified and tracked by computer; bales move quickly from the warehouse to shipping deck; electronic classing offers all the information on cotton characteristics. Calcot classers, assisted by electronic classing lines, handle 1.5 to 2 million samples that calcot receives during the autumn harvest. Almost 1.5 million bales can be stored at one time among calcot's five courthouses in California and Arizona.

4.2 Calcot's approach to marketing

Immediately after members' cotton is ginned and stored in the warehouses, Calcot's professional staff calculates the best timing for the cotton sale. Once the grower becomes Calcot member, he signs a marketing agreement with Calcot stating that all cotton under his or her control will be marketed through Calcot. This means that Calcot will have a dependable supply of all grades and volumes and provides equity among members. Calcot members are offered a choice of marketing options to fulfill their needs.

A) Seasonal Pool

With the seasonal pool option, a member's time can be spent producing a crop, while leaving daily concerns of market fluctuation and sales timing to Calcot's sales staff.

Each fall, Calcot picks up the member's cotton at the gin and advances the initial payment to the grower. This advance payment- approved by Calcot's board of directors-represents the amount of money Calcot can borrow on the cotton, roughly 75 percent of its total value. Then, as Calcot collects money from sales, progress payments are made as quickly as possible, with a final settlement paid in the following September.

B) Call Pool

With this marketing option, the member must decide at what level to set a price for cotton, based on the New York Futures Market. Calcot then markets the basis - the point difference between the futures market and the spot market - over the entire year.

Call pool growers, at the time their cotton is delivered to Calcot, are advanced about 95 percent of their fixation price.

The remainder is paid out in progress payments, and at final settlement time, the grower receives a final price of the base price plus or minus the average basis.

C) **Spot Fixation Option**

A year round marketing tool, the spot fixation option allows the grower to fix the total price for cotton based on the "spot" or "physical" price-a-price that includes both the futures prices, as well as the basis price.

This option actually is three options the grower can establish one price at one time, or set the basis first and the futures level later, or set the futures level first and the basis afterwards.

D) **Amcot**

Calcot members are represented for sales worldwide through Amcot, comprised of the four major US cotton marketing cooperatives. With the aid of consolidated offices and salesmen - who report daily to the individual cooperatives - Amcot handles inquiries for the cottons of all four memberships from the world's textile mills. Daily mill contact and offices in seven key textile areas help Amcot sell annually over 30 percent of the U.S. cotton crop to textile mills of the world.

- 4.3 According to Mr. Tom Smith, the Chairman of Calcot in a small board meeting that was attended by the Egyptian delegate, "Calcot is successful because the president is elected, they separate policy from operations; an extraordinary grower leadership hires very strong managers to whom they listen very carefully".

➡ In the board meeting Mr. Bruce Groefsma, Senior Vice President for sales, presented Calcot's sales report (**Annex 2**)

- 5- On Wednesday October 15, the delegate visited Nisshinbo spinning mill at Fresno. It was a very useful visit for the Egyptian delegate as we noticed the sharp distinction between this mill and the Egyptian public enterprise spinning mills in terms of the number of employees and the production capacity as shown in the following data about the mill.

Outline of Factory

LAND: 36 ACRES

BUILDING: 240,000 SQ'FEET (PLANT = 218,570 = 10,390 , OFFICE = 10,840)

DATE OF ESTABLISHMENT :DEC/16/87

DATE OF OPERATION: SEPT/26/89

CAPITAL: US \$50,000,000

SHAREHOLDERS:

NISSHINBO INDUSTRIES, INC.	75-%
KANEMATSU CORP.	15-%
KANEMATSU (USA) INC.	10-%

DIRECTIORS:

PRESIDENT	MASAO KIROSHITA
VICE PRESIDENT	MASAHIKO MAKABO
PRODUCTION (WEAVING)	IZUMI KATAYAMA
PRODUCTION (SPINNING)	TOSHIO OKA
PLANT MANAGER:	RANDOLPH ZEE

EMPLOYEES: 300

EQUIPMENT SPINNING:

OPENING & BLENDING MACHINE	2
CARDING MACHINE	40
LAPPING MACHINE	1
COMBING MACHINE	7
DRAWING FRAME	7
ROVING FRAME	8(120 SP/M)
RING SPINNING FRAME	32 (720 SP/M = 23,040 SPINDLES)
WINDING MACHINE	10 (72 D/M)

WEAVING:

WARPNG MACHINE	2
SIZING MACHINE	2
AIR JET LOOM	189 **
INSPECTING MACHINE	4

** TOTAL	TYPE SHEETING	TYPE TWILL & SATEEN	
1992	120	64	56
1993	166	64	102 +46
1994	189	32	157 +23 & MOD. 32

- 6- In the afternoon of Wednesday October, 15, the delegate visited the USDA classing office at Visalia.

The following is a very brief summary of the operation:

After the lint is baled at the gin, samples taken from each bale are classed using high volume instrumentation and the aid of an expert according to fiber strength, staple length, length uniformity, color, non-fiber content and fineness. Scientific checks are made periodically to ensure accuracy is maintained.

Staple refers to the fiber length. Cotton of a given variety produces fibers about the same length. Since the fibers may vary within a bale, length uniformity allows a determination of the variability within that bale.

Classing standards are established by the U.S. Department of Agriculture in cooperation with the industry.

- ➔ All the information on the classification of the American cotton are attached in (Annex 3)

- 7- On Friday October 17, the delegate visited a ginning mill located at a ranch, pertaining to the Chairman of Calcot board of directors, called "Paloma Ranch". The 25 thousand acre ranch is at Arizona, 50 miles south of Phoenix.

From the fields seed cotton moves to the gin for separation of lint and seed. The cotton first goes through dryers to reduce moisture content and then through cleaning equipment to remove foreign matter. These operations facilitate processing and improve fiber quality.

The cotton is then conveyed to gin stands where revolving circular saws pull the lint through closely-spaced ribs that prevent the seed from passing through. The lint is removed from the saw teeth by air blasts or rotating brushes, and then compressed into bales weighting approximately 500 pounds. Cotton is then moved to a warehouse for storage until it is shipped to a textile mill for use.

A typical gin can produce about 12 bales per hour, while some of today's "super" gins turn out as many as 60 bales an hour.

N.P. The delegate expected to see sub-surface irrigation at Arizona, unfortunately time passed very quickly and the ranch that we saw uses surface irrigation with super land levelling.

8- General Observations and Lessons Learnt:

- Calcot uses Egyptian cotton prices as an indicator, and decide their price according to this indicator.
- Egyptian pricing policy hurts Egyptian cotton exports (especially Giza 75)
- Need to recognize that demand on worldwide ELS is decreasing (or stagnant), Why? We need to research the reasons.
- With Calcot, the farmer owns the cotton until after ginned and baled. (The farmer sells the seed cotton)
- Although American Pima reached \$1.10 per pound (it was \$1.80), the farmers are going to short staple because yield is better - 1.2 bales of Pima versus 3.4 bales of short staple per acre at a price of \$0.68-70 per pound.
- Consumer preference is for casual wear - the demand is for short-staple - (World demand for short-staple is 20 X ELS.)
- Calcot's role is to expand market share/exports for its members.
- No blending. All pressing at Gin. Bale by bale classification and computerized stock management.
- In the Meetings with Mr. Tom Smith, Calcot President, he said: "What is the value of your high floor price? Lowering the Egyptian export price will not necessarily increase the demand for it" "Crisis" price (covers expenses) in USA versus "incentive" price in Egypt. Bottom line; Calcot can offer lower priced cotton.
- Egypt is a new corner to the free market. We must learn and change. We must highly consider the future market systems.

9- A recipe For Egypt



This diagnosis will be done after consultation with different stakeholders and people involved in cotton marketing to be given in the final presentation. The following are some quick remarks on the current cooperative system.

- A) In a Free Market-Oriented economy, which Egypt is heading for, the cotton cooperative system needs to be based on demand driven approach not a supply driven one.
- B) Cooperatives require capacity building and separating regulation from operation.
- C Cooperative leaders and staff need to acquire knowledge, skills and abilities in interpreting economic indicators at both national and international levels.
- D) Existing cooperative laws should be more flexible to allow cooperatives to better serve their members and engage in such activities that were undertaken by the government in the past.
- E) Restructuring or rehabilitation is necessary to increase the cooperative system efficiency, and aggressive training program needs to be designed including off-shore and in country training.

CC: Dr. Saad Nassar, APRP Director
Mr. Mahmoud Nour, APRP Coordinator
Dr. Max Goldensohn, COP, DAI
Dr. Gary Ender, COF , MVE
Dr. Akhtar Ahmed, COP, IFPRI
Dr. Tom Olson , USAID
Mr. Ali Kamel , USAID
Dr. M. Omran , USAID
The delegation members

Annex 1

Alaa Shalaby, Minister Economic and Commercial
2232 Mass Ave., Commercial Attache's office, Egyptian Embassy

Mr. Shiati provided a project overview of the New Valley Project to Mr. Shalaby in Arabic.

Discussion:

- For an investor, stable economy, 5% growth rate, good potential for continued growth.
- Believe economic climate is good for Egypt, compare to SE Asia, many incentives for investors, fast growing population, growing middle class, growing per capita income.
- Egypt making progress in the movement to meet world market competition.
- For the New Valley Project: Incentives for both Egyptians and Foreigners include, 20 year tax holiday; no customs on inputs of any kind; a completely free market on products - no price controls; full authority to export - if the government wishes to procure products produced in the New Valley, they will have to pay world market prices for them, even if subsidized to the final consumer; no restrictions on repatriation of profits; guaranteed subsidized price for fuel (50% of normal price); Electricity will be available from government grid within 3 years; Electricity price will be the same as in the Nile Valley; All infrastructure complete at government cost within 5 years; Total project will take 20 years to develop including railway access; there is a telephone system installed there now based on satellite.
- Bank fees 12% plus 1 1/2% for Ag projects, 15% plus a premium for commercial loans, Dollar rate is 6 1/2%. You can borrow in dollars or in Egyptian Pounds.
- Foreign individuals are not allowed to own farm land. They can lease the land for 90 years at favorable rates (suggested that it might be \$2/Yr/Ac in the New Valley). Egyptians can own the land, they have to pay a 50 Pound per acre selling price. An Egyptian who is granted land under this program has 5 years to plant it to crops.
- A US company or individual can set up an Egyptian company and own the company 100%, it is subject to Egyptian law and requires an investment. This Egyptian company would then be an Egyptian person and could own land. A US company or individual can also invest in an existing Egyptian company that then owns the land.
- Owner of the land pumps the water to the land, he is given a right to water and the water and infrastructure to deliver the water is provided (for surface water, owner has to pay all costs for well water), but the owner of the land is responsible for pumping the water. There is no charge for the water. Both locations that are being developed for wells have artesian water in them. The owner has to install the irrigation system.
- Water levels at the Southwest site is 20-30 meter static with wells at 250-380 meters. At the North site there are three levels of water. The first is at 4-80 meters, the second 120-300 meters, and the third at 650-1500 meters. The first two levels require submersible pumps. The third layer is artesian with

water reaching the surface at 8 atmospheres, 38-45 degrees and 220 PPM salts. A well at this location costs 800,000 to 1MM Egyptian pounds, will produce 25,000 cu m/day of water, enough to water 1000 acres depending on the crops.

- These aquifers are claimed to have 55,000 Billion cu m of water, they claim that the water is in a rechargeable aquifer and that they can irrigate 180K acres in the North and 200K acres in the Southwest without damaging the aquifer. Companies are only allowed to plant 2/5 of the land they are given until the aquifer is proven.
- Study done by the Dutch on existing wells found that the aquifer is rechargeable but that the recharge rate, based on carbon 14 dating, is 10,000 years.
- The canal will have 5M cu m per day of capacity.
- Law is based on French Common Law.
- Ken is going to get a Country Commercial Guide from the embassy, similar to one the Minister/Counselor had.
- The Commercial attache is available to provide briefings to US investors and companies and will assist us in any way necessary to encourage investment.

OPIC Meeting

Abed Tarbush and Bruce Cameron, Business Development Officers

- Open in 143 countries including Egypt, no office in Egypt
- Provide direct loans and loan guarantees
- Government agency but provide services more similar to merchant bank
- A lot of interest in Egypt, to not have much business there now and would like to have more.
- Primarily projects and JV partnerships.
- Fees 1% of the total financing. 1/3 as retainer, 1/3 at commitment, 1/3 at closing
- Reservations - textiles and housing. Housing it too long a term, they provide limited recourse financing and don't want to be putting people out of their homes. The textile restriction is due to the competition and textile lobby.
- Do an impact analysis on every project that includes affect on the US economy, US job creation or damage, and competition.
- Could theoretically do textiles if there was no competition or didn't result in the potential closure of US plants.
- Can finance up to 50% of a new project including the feasibility and working capital costs. For an expansion of an existing project can go up to 75%.
- Loan terms are 5-15 years (longer are for infrastructure), rates are fixed for the life of the loans.
- Loan is made to a US sponsor (US Holding company is usually formed for the project). The sponsor must have a track record in the field. Sponsor must show commercial viability, ability to carry the debt and manage a successful project. Prefer a 60/40 debt to equity ratio. Equity can include cash, land, etc. 10% of equity needs to be US. Willing to work with other organization like IFC with either equity or debt. Some portion of the 40 % equity has to be real equity from the sponsors.
- Insurance is made to the sponsor, it is only on the US portion of the investment. Will cover up to 90% of the debt or equity. Can have one, or all, of three options: a) political violence/war, b) currency inconvertibility, c) expropriation.
- Investment funds have been set up for some regions, only invest equity. MINA fund for \$200M is in the final stages of capitalization. This fund will have up to 50% of the funds for Egypt. Generally make 4-5 year investments, management and equipment must come from the US, must show an exit strategy. Expect a 20-30% return on investment, diversify the assets.
- Interest rates are T Bill plus 2-4% depending on country risk.
- JV is okay, subsidiary of a US company is also okay but it must be 95% US owned if it is foreign corporation. The project holding company has to be at least 25% US owned.
- There is an environmental impact assessment done for the projects. In the case of the New Valley it would include new settlements, the aquifer, run-off, etc.
- Sponsor is required to provide completion guarantees for project, legal, operations, and marketing.

- Can support a project with state ownership as long as the total state control or ownership is less than 50%.

10-21-97

Meeting at ExIm Bank

Tony (Anthony) Distefano, Business Development Officer, Middle East

- Mr. Shiati gave a presentation on the New Valley project. He noted that he was looking for investors from the US to provide equity, technology, consulting, and marketing.
- Covers Egypt, Jordan, Lebanon, etc.
- ExIm very interested in expanding business in this area
- Open for business in Egypt, the primary ExIm target market in the Middle East
- Covers exports of all capital goods, commodities, intermediate goods, and services
- ExIm coverage available for purchase or lease for any US source goods or services
- ExIm is available to either the public sector or the private sector
- Leases can be operating lease or full finance lease
- Operating leases are for a fixed time period and capital item returns to lessor
- Full finance leases are arranged so that the lessee owns the capital item at the end
- Leasing is available for new and used equipment/goods
- All finance is subject to an adverse impact study
- Adverse Impact Study determines if the project will affect US production or manufacturing through sales in the US or competition, may affect whether ExIm can make a loan. Some competition is acceptable
- Applications
 - Commodity and parts, 6 mo to 1 year, application by Exporter for credit insurance, supplier credit financed by bank as insured receivable
 - Services generally the same but for project development may extend
 - Capital equipment, up to 10 years depending on kind and size of products
 - Two kinds of application, letter of interest and file commitment
- Letter of interest, request can be made by any part to the transaction (exporter, importer, borrower, bank, consultant, broker) it takes 7 days to get a letter of commitment from ExIm
- File commitment, will take 4-8 weeks, requires a signed contract for purchase, must have all financial information on repayment negotiated, requires a full application for finance or lease, application has to be made by the foreign borrower or by a commercial bank who will be involved in the financing
- Financing is generally for 85% of the US price.
- If ExIm issues a guarantee then commercial bank may loan the other 15%
- Up to \$10M, ExIm will only offer guarantee, too small for direct ExIm loan
- ExIm available to any creditworthy borrower, require 3 years of audited financials, credit agency report, credit references, or financial institution guarantee
- For a direct loan must be shipped on US flag vessel, pay cost of credit

- Loan rate is based on average of 3/5/7 year T-bills plus 100 basis points.
- For direct loans, less than 5 year (6.98%), 5-8 1/2 years (7.11%), 8 1/2-10 years (7.20%)
- Commercial bank loans are commercial rates, LIBOR plus 1/2 to 1 1/2 points
- 1st installment due 6 months after purchase OR commission of project if it is a large project, the period up to commission is a grace period with interest only
- Lease arrangements are very flexible, tied to a standard lease agreement
- Medium term lease is 5 years or less, based on an ExIm credit insurance policy
- Long term lease is over 5 years and over \$10M, uses the ExIm guarantee
- In response to a question, indicated that ExIm might be able to set up a leasing office for a capital goods company in Egypt to supply equipment to a project as needed, the lease arrangements to lessees by the lessor would have to be approved, ExIm would issue a guarantee, lessee pays local bank against a letter of credit

Information from Mr. Shiati on Project

From a Briefing on New Valley Projects

- Feasibility by British firms, need to be updated. Feasibility studies include soils, irrigation, water sources, crop rotations, etc.
- IFC is paying for a new feasibility study that they are conducting.
- Soils are all sand
- Crop rotations considered include alfalfa, sunflower, soybean, wheat, canola, maize, flax, onion, peanut, garlic, and potato.
- Issues for horticulture crops are time to market, shipping, storage, and post harvest handling.
- There are airports in the area (two) that can handle 747 traffic so it is possible that export shipments of HVH could be considered. Says it takes two days on the road from New Valley to Nile Valley for Hort crops. (Note that Mexican produce takes longer than this to get to the US by road).
- The North site they are considering for Vegetables, grapes, watermelon.
- In South just stable crops. New storage and handling facilities for all crops.
- The canal region is 750K acres, he has an option for 260K acres of land there.
- International airports are at Kharg and Watnot (sp?).
- Canal is 3-4 years away.
- In the North area he has 15,000 acres and speaks for 35,000 acres. Some has water now but it will take 3 years to get all of it developed for water. This land he intends to develop and sell. Will provide water development, irrigation development, water management, date palms, services, inputs, etc.
- In the South he has 25,000 acres and speaks for 75,000 acres. These have to be large farms, cannot get small farmers from the Nile to come this far out into the desert. Artesian but still have to lift 25-40 meters. They will start water development in 6 months.
- The Canal site he intends to develop and then sell to small holders, split up the land.
- When I asked him if he would consider owning the land and renting it to farmers, thus capturing the inflation premium, he said no. Reason was he wanted to build a community. I pointed out that it took the same investment in all ways for tenant farmers to operate as it does for owners. Most farmers cannot own enough land to be efficient in scale. In the US the average farmer owns 20-30% of the land he farms and rents the rest. Needs large landowners to rent to him to be profitable. This is a role that Shoura could play.
- Left him thinking about this. Also talked to him about the idea of setting up a service company to provide farm management, scheduling, marketing, and other services to the landowners and to the farmer/tenants/owners.

Annex 2

December 97 Daily Cotton

Cents/lb

82 -

80 -

78 -

76 -

74 -

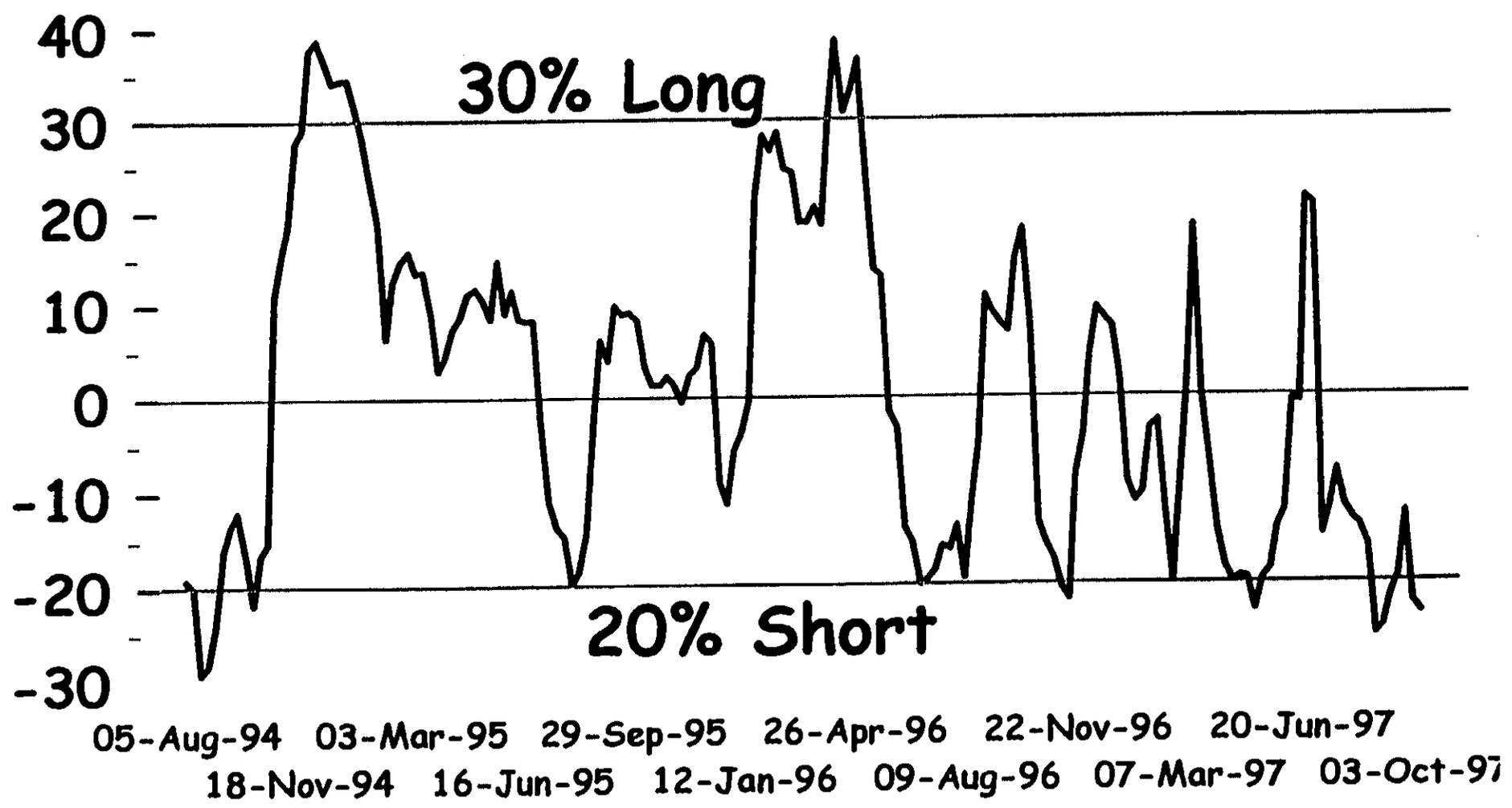
72 -

70 -

12/14/95 02/27/96 05/06/96 07/16/96 09/23/96 12/02/96 02/11/97 04/18/97 06/26/97 09/04/97
01/23/96 04/01/96 06/10/96 08/19/96 10/25/96 01/08/97 03/17/97 05/22/97 07/31/97 10/08/97

Net Spec Position

Percent

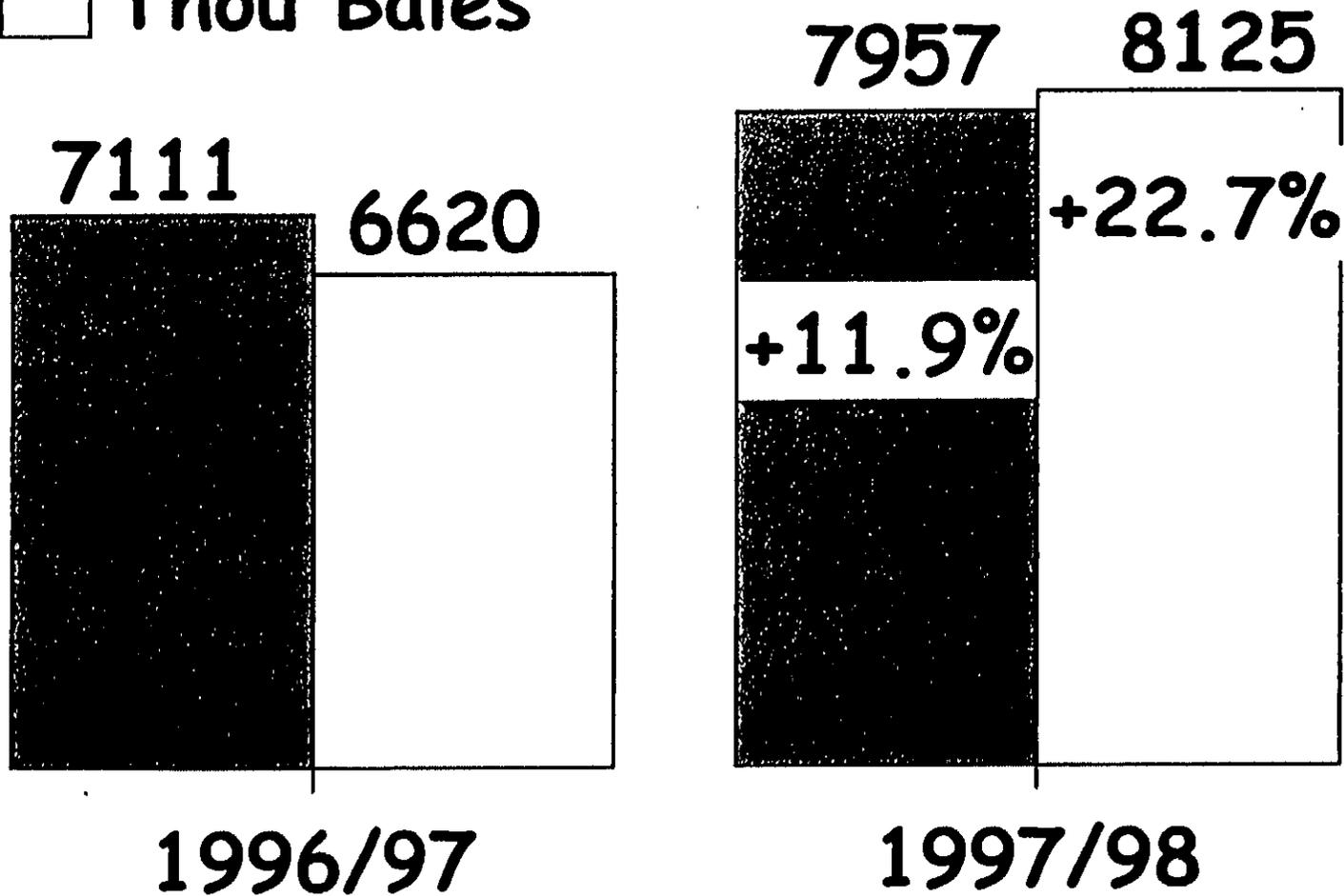


USDA World Supply/Demand

	'93/94	'94/95	'95/96	'96/97	'97/98
Begin Stocks	34.4	26.3	28.3	34.1	36.4
Prod	76.7	85.6	93.0	89.0	89.9
Cons	85.5	85.6	86.9	88.1	90.1
End Stocks	26.3	28.3	34.1	36.4	35.8

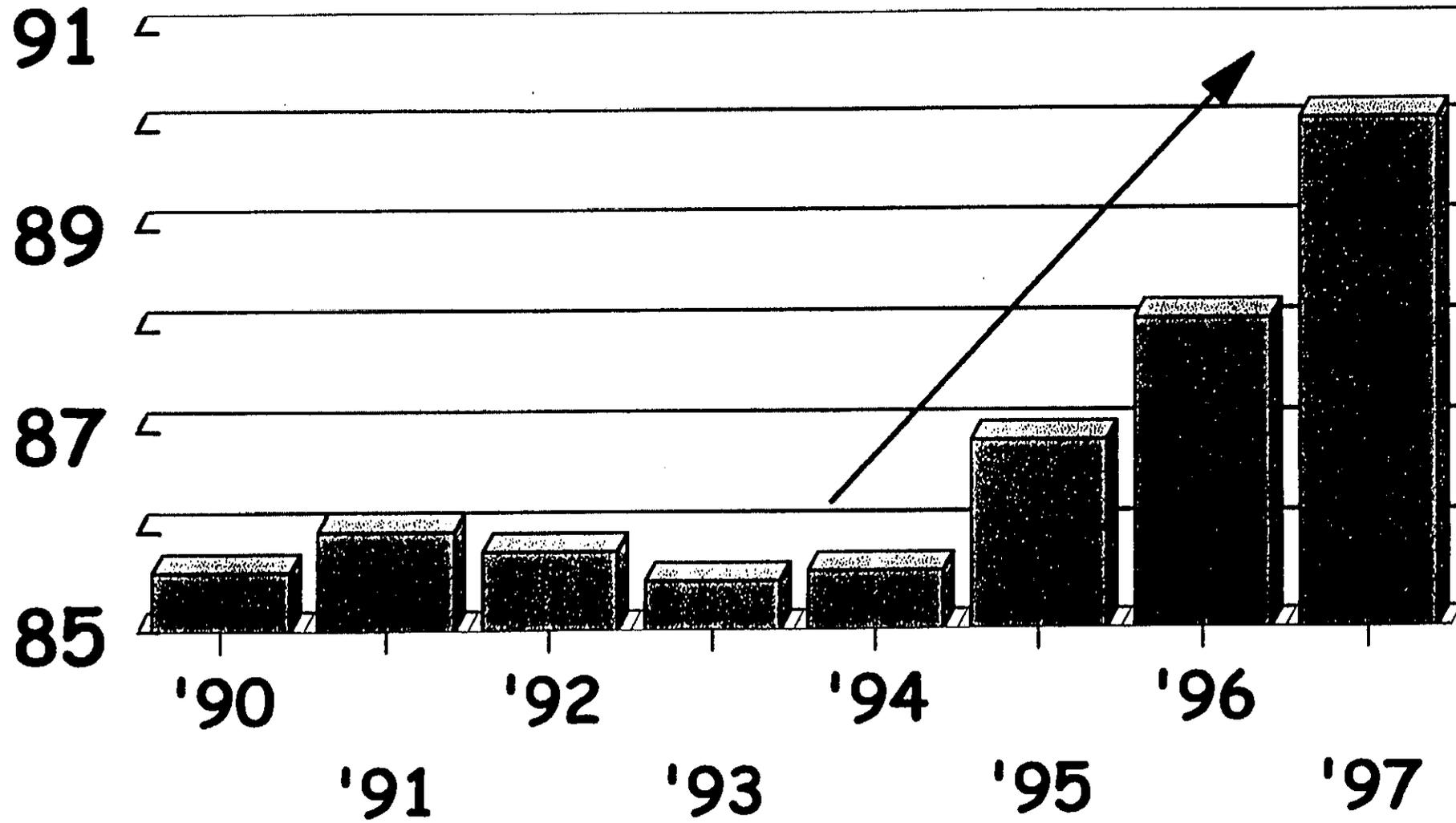
Major Southern Hemisphere Plantings and Production

■ Thou Acres
□ Thou Bales



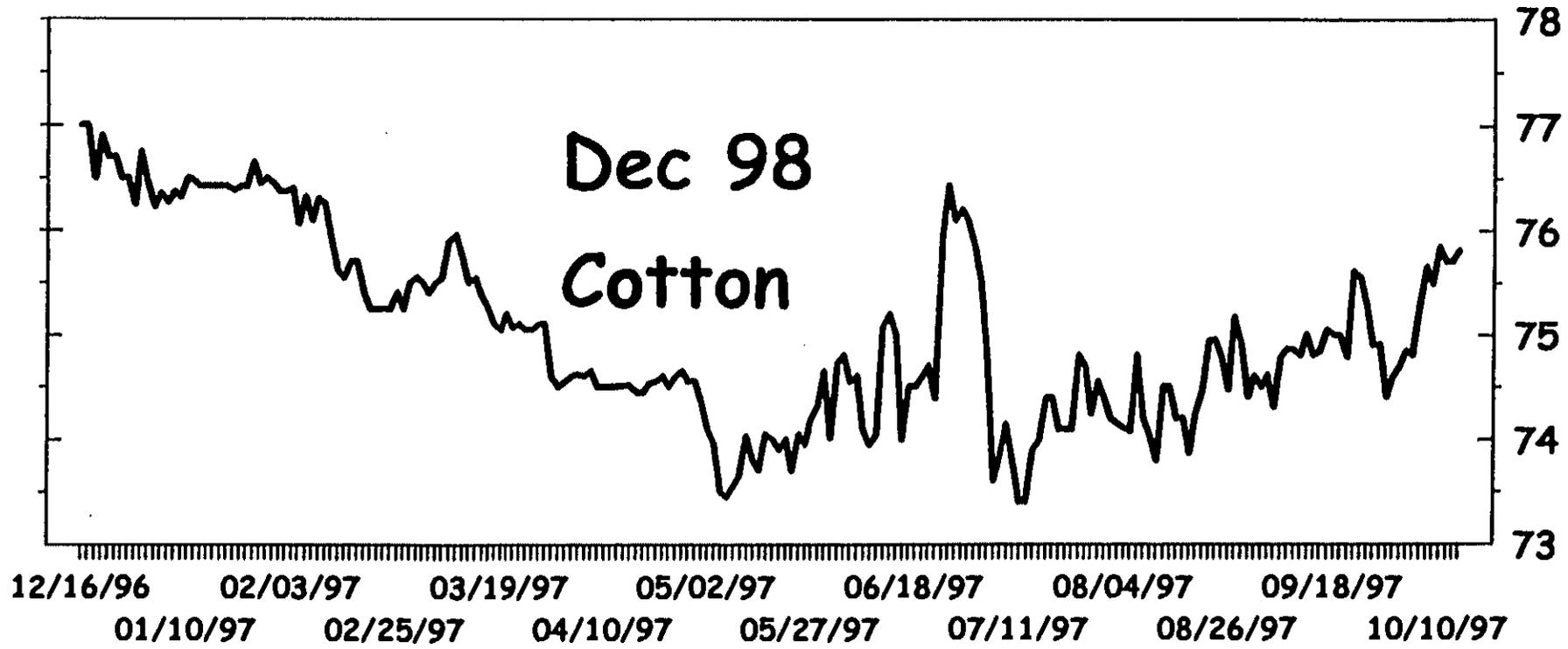
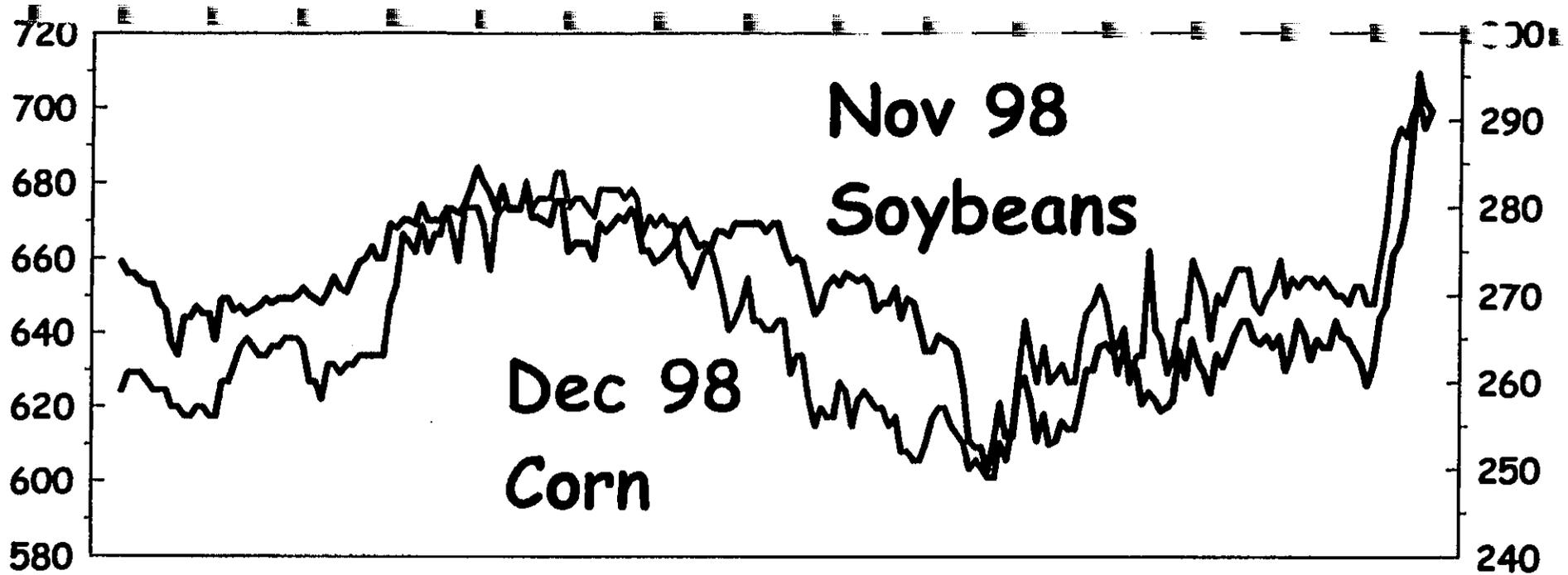
World Cotton Consumption

Mil Bales



Major Consuming Markets

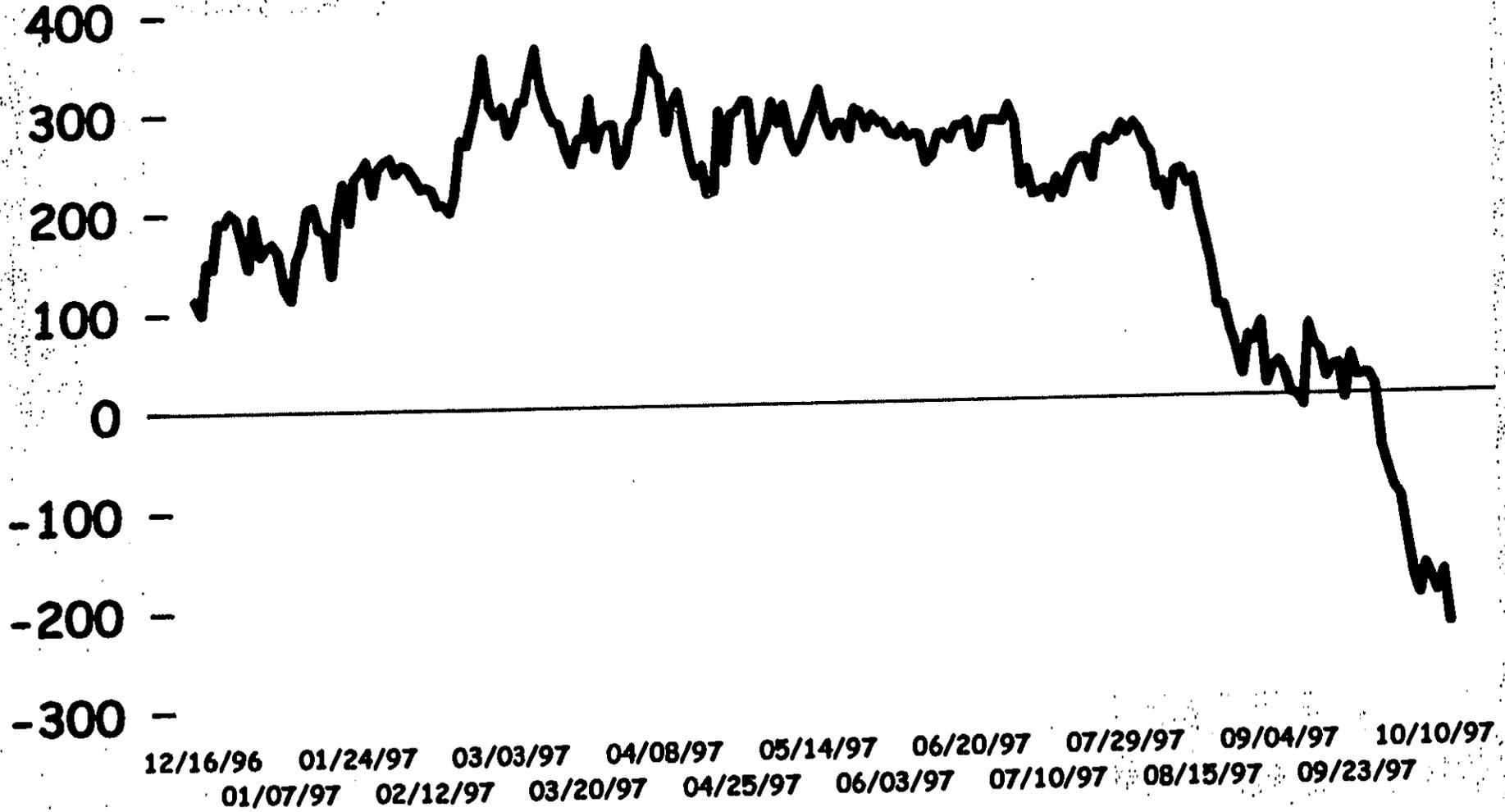
	'93	'97	Chg	
Far East	6812	4450	-2362	/ <i>Cons + 200</i> <i>Pric + 415</i> <i>Invnt 3300 (850%)</i>
"Big 3"	37941	41900	+3959	
ASEAN	4306	4110	-196	
Turkey	3215	4700	+1485	
NAFTA	11476	13315	+1839	
LAmer	5898	5958	+60	
Total	69648	74433	+4785	
World	85455	90140	+4685	
%World	81.5%	82.6%		



12/16/96 02/03/97 03/19/97 05/02/97 06/18/97 08/04/97 09/18/97
 01/10/97 02/25/97 04/10/97 05/27/97 07/11/97 08/26/97 10/10/97

MAY98/DEC98 SPREAD

Points/lb.



Annex 3



United States
Department of
Agriculture

Agricultural
Marketing
Service

Agricultural
Handbook 566

The Classification of Cotton



Prepared by:
Cotton Division
Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

Revised April 1993

Cover Photo by:
Harris Barnes
Clarksdale, Mississippi

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I. Introduction

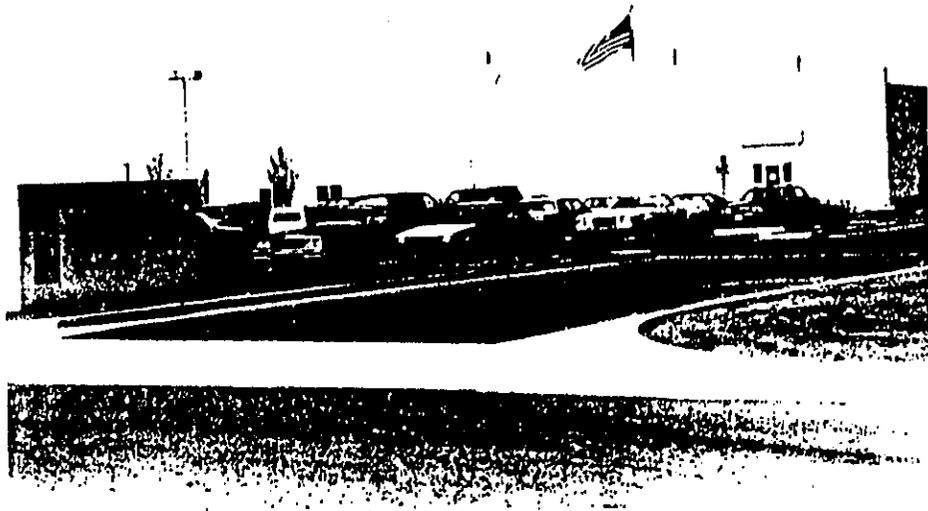
In 1907, an international group of cotton industry representatives met in Atlanta, Georgia, to address serious problems that had developed in the marketing of cotton. A resolution was passed which recommended the establishment of uniform cotton standards to "eliminate price differences between markets, provide a means of settling disputes, make the farmer more cognizant of the value of his product, and, therefore, put him in a better bargaining position, and in general be of great benefit to the cotton trade." In response to this and similar calls for action over the next several years, laws were passed authorizing the United States Department of Agriculture (USDA) to develop cotton grade standards and offer cotton classification services. Thus began an industry-government relationship which remains strong and viable to this day. This long-standing partnership demonstrates how government and industry can work together, each respectful of the other's role, to produce continuing beneficial results for the nation, and for its customers abroad.

II. Overview

Nature of Cotton

Botanically, three principal groups of cotton are of commercial importance. The first (*Gossypium hirsutum*) is native to Mexico and Central America and has been developed for extensive use in the United States, accounting for more than 95 percent of U.S. production. This group is known in the United States as American Upland cotton, and varies in length from about 7/8 to 1 5/16 inches. A second botanical group (*G. barbadense*) which makes up the balance of U.S. production, is of early South American origin. Varying in length from 1 1/4 to 1 9/16 inches, it is known in the United States as American Pima, but is also commonly referred to as Extra Long Staple (ELS) cotton. A third group (*G. herbaceum* and *G. arboreum*) embraces cottons of shorter length, 1/2 to 1 inch, that are native to India and Eastern Asia. None from this group is grown in the United States.

In a single pound of cotton, there may be 100 million or more individual fibers. Each fiber is an outgrowth of a single cell that develops in the surface layer of the cotton seed. During the early stages of its growth, the fiber elon-



USDA operates 18 cotton classing facilities strategically located across the Cotton Belt. The facilities are specifically designed to use high-volume instrument (HVI) classification. Temperature and humidity inside the facilities are tightly controlled to ensure accurate and precise measurements of all samples.

gates to its full length as a thin-walled tube. As it matures, the fiber wall is thickened by deposits of cellulose inside the tube, leaving a hollow area in the center. When the growth period ends and the living material dies, the fiber collapses and twists about its own axis.

Classification

The term "cotton classification" in this publication refers to the application of standardized procedures developed by USDA for measuring those physical attributes of raw cotton that affect the quality of the finished product and/or manufacturing efficiency. USDA classification currently consists of determinations of fiber length, length uniformity, strength, micronaire, color, preparation, leaf, and extraneous matter. Research and development for the technology to rapidly measure other important fiber characteristics, such as maturity and short fiber content, continues.

Authority

USDA cotton classification services are authorized by the U.S. Cotton Statistics and Estimates Act, the U.S. Cotton Standards Act, and the U.S. Cotton Futures Act. All users of the service are charged a fee to recover classification costs.

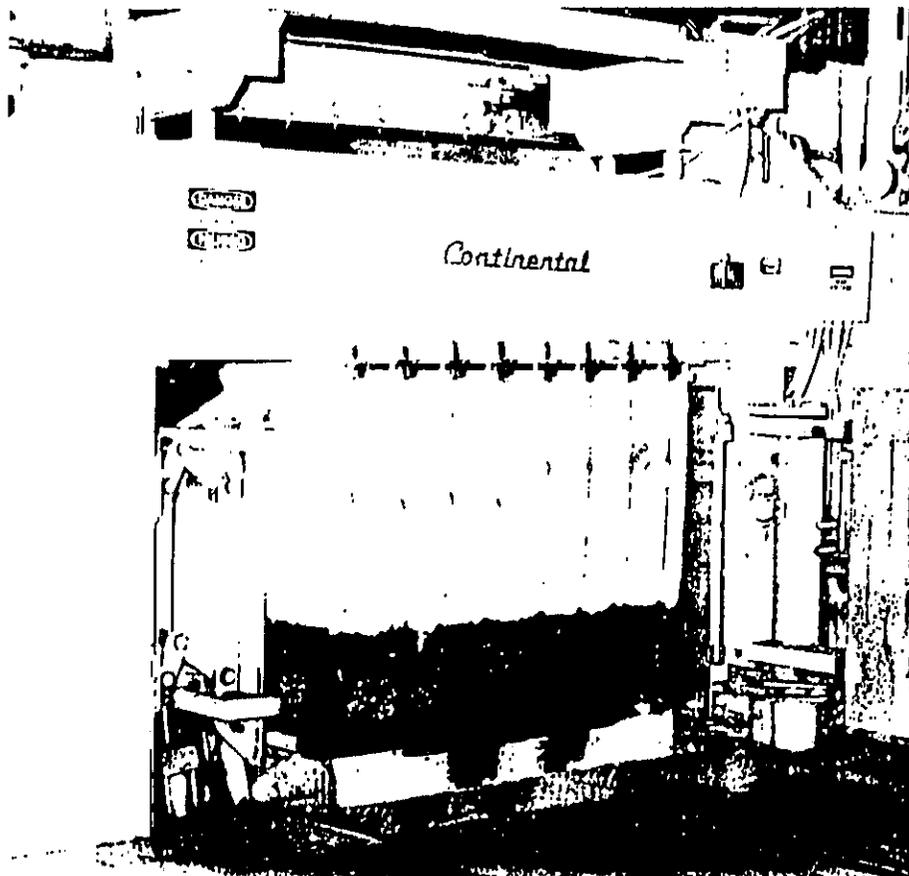
Scope

Practically all cotton grown in the United States is classed by USDA at the request of producers. While classification is not mandatory, growers generally find it essential to marketing their crop and for participation in the USDA price support program. USDA also classes all cotton tendered for delivery on futures contracts on the New York Cotton Exchange and provides arbitration classing to the industry. Classification services also are provided to individual buyers, manufacturers, breeders, researchers, and others upon request.

Facilities

USDA operates 18 cotton classing facilities across the Cotton Belt. The facilities are designed specifically for cotton classification and are staffed exclusively with USDA personnel. Their locations are shown inside the back cover.

3



After the cotton fibers are separated from the seed, cleaned to remove plant residue and other foreign material, and pressed into bales at the gin, a 4-ounce sample is taken from each side of the bale by a licensed sampling agent and forwarded to USDA for official classification.

Sampling

At the gin, cotton fibers are separated from the seed, cleaned to remove plant residue and other foreign material, and pressed into bales of about 500 pounds. A sample of at least 4 ounces (114 grams) is taken from each side of the bale by a licensed sampling agent and delivered by the agent or designated hauler to the USDA classing facility serving the area. Gin and warehouse operators serve as licensed sampling agents and perform this function under USDA supervision.

Sample Processing

Upon arrival at the USDA classing facility, samples are conditioned a minimum of 48 hours before the classing process begins (see page 19 for conditioning details). Samples are delivered to classing stations by conveyor belt. Fiber measurement results are electronically sent to the classing facility's computerized data base and are immediately available to the customer. The classing process stays abreast of the ginning of the crop, providing producers and buyers with crucial quality information at time of sale. At the peak of the season, USDA classes and provides data on as many as 1.5 million bales per week, nationwide. Sample remnants are sold by USDA, with proceeds applied to classification costs.

Classing Methodology

USDA's classing methodology is constantly updated to include state-of-the-art methods and equipment to provide the cotton industry with the best possible quality information for marketing and processing. The system is rapidly moving from reliance on the human senses to the utilization of high-volume, precision instruments which perform quality measurements in a matter of seconds. USDA will complete the transition to all-instrument classification as quickly as the technology can be developed and instruments are sufficiently refined.

Dissemination of Data

Cotton classification data are available to producers or their authorized agents through computer-to-computer telecommunications, diskettes, tapes, punched cards, and computer-generated printed documents. The most popular method of dissemination is telecommunications, because it gives the customer immediate access to data upon classification. The data are avail-



Samples are collected, usually on a daily basis, from sampling points and delivered to the USDA classing facility serving that area

able to subsequent owners of the cotton, primarily merchants and manufacturers, through a computerized central data base. This data base is accessible by telecommunications and contains classification data for the current and past year's crop. Access to the classification data is limited to the current owner of the cotton.

III. Classification of Upland Cotton

A. Instrument Determinations

Measurements for the following quality factors are performed by high-volume, precision instruments, commonly referred to as "HVI" classification.

Fiber Length

Fiber length is the average length of the longer one-half of the fibers (upper half mean length). It is reported in both 100ths and 32nds of an inch (see conversion chart below). It is measured by passing a "beard" of parallel fibers through a sensing point. The beard is formed when fibers from a sample of cotton are grasped by a clamp, then combed and brushed to straighten and parallel the fibers.

Upland Length Conversion Chart

32nds	Inches	32nds	Inches
24	0.79 & shorter	36	1.11 - 1.13
26	.80 - .85	37	1.14 - 1.17
28	.86 - .89	38	1.18 - 1.20
29	.90 - .92	39	1.21 - 1.23
30	.93 - .95	40	1.24 - 1.26
31	.96 - .98	41	1.27 - 1.29
32	.99 - 1.01	42	1.30 - 1.32
33	1.02 - 1.04	43	1.33 - 1.35
34	1.05 - 1.07	44 & longer	1.36 & longer
35	1.08 - 1.10		

Fiber length is largely determined by variety, but the cotton plant's exposure to extreme temperatures, water stress, or nutrient deficiencies may shorten the length. Excessive cleaning and/or drying at the gin may also result in shorter fiber length.

Fiber length affects yarn strength, yarn evenness, and the efficiency of the spinning process. The fineness of the yarn which can be successfully produced from given fibers is also influenced by the length of the fiber.

Length Uniformity

Length uniformity is the ratio between the mean length and the upper half mean length of the fibers and is expressed as a percentage. If all of the fibers in the bale were of the same length, the mean length and the upper half mean length would be the same, and the uniformity index would be 100. However, there is a natural variation in the length of cotton fibers, so length uniformity will always be less than 100. The following tabulation can be used as a guide in interpreting length uniformity measurements.

Degree of Uniformity	HVI Length Uniformity Index (Percent)
Very High	Above 85
High	83 - 85
Intermediate	80 - 82
Low	77 - 79
Very Low	Below 77

Length uniformity affects yarn evenness and strength, and the efficiency of the spinning process. It is also related to short fiber content (fiber shorter than one-half inch). Cotton with a low uniformity index is likely to have a high percentage of short fibers. Such cotton may be difficult to process and is likely to produce low-quality yarn.

Fiber Strength

Strength measurements are reported in terms of grams per tex. A tex unit is equal to the weight in grams of 1,000 meters of fiber. Therefore, the strength reported is the force in grams required to break a bundle of fibers one tex unit in size. The following tabulation can be used as a guide in interpreting fiber strength measurements.

Degree of Strength	HVI Strength (grams per tex)
Very Strong	30 & above
Strong	27 - 29
Intermediate	24 - 26
Weak	21 - 23
Very Weak	20 & below

Strength measurements are made on the same beards of cotton that are used for measuring fiber length. The beard is clamped in two sets of jaws, one eighth inch apart, and the amount of force required to break the fibers is determined. Fiber strength is largely determined by variety. However, it may be affected by plant nutrient deficiencies and weather.

There is a high correlation between fiber strength and yarn strength. Also, cotton with high fiber strength is more likely to withstand breakage during the manufacturing process.

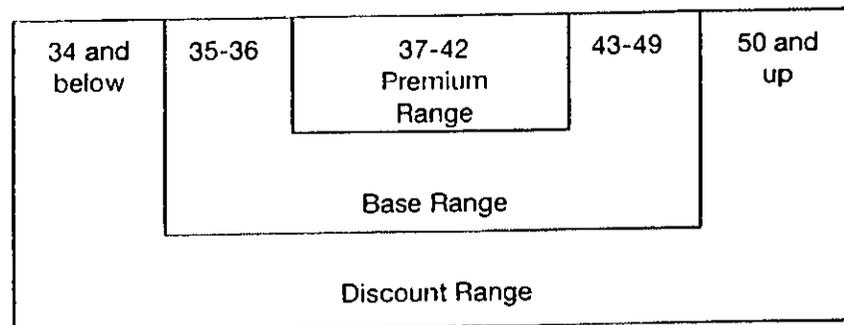
Micronaire

Micronaire is a measure of fiber fineness and maturity. An airflow instrument is used to measure the air permeability of a constant mass of cotton fibers compressed to a fixed volume. The chart below can be used as a guide in interpreting micronaire measurements.



Upon arrival at the USDA classing facility, samples are conditioned a minimum of 48 hours before the classing process begins, to standardize moisture content.

Relationship of Micronaire Readings to Market Value



Micronaire measurements can be influenced during the growing period by environmental conditions such as moisture, temperature, sunlight, plant nutrients, and extremes in plant or boll population.

Fiber fineness affects processing performance and the quality of the end product in several ways. In the opening, cleaning, and carding processes, low-micronaire, or fine-fiber, cottons require slower processing speeds to prevent damage to the fibers. Yarns made from finer fiber result in more fibers per cross-section, which in turn produces stronger yarns. Dye absorbency and retention vary with the maturity of the fibers. The greater the maturity, the better the absorbency and retention.

Color

The color of cotton is determined by the degree of reflectance (Rd) and yellowness (+b). Reflectance indicates how bright or dull a sample is and yellowness indicates the degree of color pigmentation. A three-digit color code is used. The color code is determined by locating the point at which the Rd and +b values intersect on the Nickerson-Hunter cotton colorimeter diagram for Upland cotton (see exhibit A on page 22).

The color of cotton fibers can be affected by rainfall, freezes, insects and fungi, and by staining through contact with soil, grass, or the cotton plant's leaf. Color also can be affected by excessive moisture and temperature levels while cotton is being stored, both before and after ginning.

As the color of cotton deteriorates due to environmental conditions, the probability for reduced processing efficiency is increased. Color deterioration also affects the ability of fibers to absorb and hold dyes and finishes.



Utilizing the latest technology and equipment, samples are classed on an assembly line arrangement with fiber measurement results electronically transmitted to the classing facility's computerized data base.

Trash

Trash is a measure of the amount of non-lint materials in the cotton, such as leaf and bark from the cotton plant. The surface of the cotton sample is scanned by a video camera and the percentage of the surface area occupied by trash particles is calculated. Although the trash determination and classer's leaf grade (see page 15) are not the same, there is a correlation between the two as shown in the tabulation below.

Relationship of trash measurement to classer's leaf grade

Trash Measurement (4-yr. Avg.) (% area)	Classer's Leaf Grade
0.08	1
.12	2
.18	3
.34	4
.55	5
.86	6
1.56	7

B. Classer Determinations

Although USDA provides instrument measurements of color and trash, the traditional method of classer determination for color, leaf, and extraneous matter remains useful to the cotton industry and continues to be included as part of the official USDA classification.



Classification results, maintained by the local classing facility on a computerized data base, are available to growers or their agents immediately upon classification. The standard means of data dissemination is by computer-to-computer telecommunications. Individual bale data is available only to the current owner of the cotton. Upon acquiring title to the cotton, merchants and manufacturers may obtain the data from a central data base.

Color Grade

There are 25 official color grades for American Upland cotton, plus five categories of below grade color, as shown in the tabulation below. USDA maintains physical standards for 15 of the color grades. The others are descriptive standards.

**Color Grades of Upland Cotton
Effective 1993**

	White	Light Spotted	Spotted	Tinged	Yellow Stained
Good Middling	11*	12	13	--	--
Strict Middling	21*	22	23 ¹	24	25
Middling	31*	32	33*	34 ¹	35
Strict Low Middling	41*	42	43*	44*	---
Low Middling	51 ¹	52	53 ¹	54 ¹	---
Strict Good Ordinary	61 ¹	62	63 ¹	---	---
Good Ordinary	71 ¹	---	---	---	---
Below Grade	81	82	83	84	85

* Physical Standards. All others are descriptive.

Leaf Grade

The classer's leaf grade is a visual estimate of the amount of cotton plant leaf particles in the cotton. There are seven leaf grades, designated as leaf grade "1" through "7," and all are represented by physical standards. In addition, there is a "below grade" designation which is descriptive.

Leaf content is affected by plant variety, harvesting methods, and harvesting conditions. The amount of leaf remaining in the lint after ginning depends on the amount present in the cotton prior to ginning, and on the type and amount of cleaning and drying equipment used. Even with the most careful harvesting and ginning methods, a small amount of leaf remains in the cotton lint.

From the manufacturing standpoint, leaf content is all waste, and there is a cost factor associated with its removal. Also, small particles cannot always be successfully removed and these particles may detract from the quality of the finished fabric.

Preparation

Preparation is the classer's determination of the degree of roughness or smoothness of the ginned lint cotton. The harvesting and ginning of cotton which contains too much moisture may result in lint cotton with a twisty, knotty appearance. Such cotton is difficult to process and produces inferior yarn. Abnormal preparation in Upland cotton has greatly diminished in recent years, due to improvements in harvesting and ginning practices, and now occurs in less than one-half of 1 percent of the crop.

Extraneous Matter

Extraneous matter is any substance in the cotton other than liber or leaf. Examples of extraneous matter are bark, grass, spindle twist, seedcoat fragments, dust, and oil. The kind of extraneous matter, and an indication of the amount (light or heavy), are noted by the classer on the classification document.

IV. Classification of American Pima Cotton

Classification procedures for American Pima cotton are similar to those for American Upland cotton, including transition to instrument measurements. Different grade standards are used because the color of American Pima cotton is a deeper yellow than that of Upland (see exhibit B, American Pima colorimeter diagram). Also, the ginning process for American Pima cotton (roller ginned) is not the same as for Upland (saw ginned). The roller gin process results in an appearance that is not as smooth as that of the saw ginned process.

There are six official grades (grades "1" through "6") for American Pima cotton, all represented by physical standards, plus below grade, which is descriptive. A different chart is used to convert American Pima fiber length from 32nds to 100ths of an inch. This chart is below.

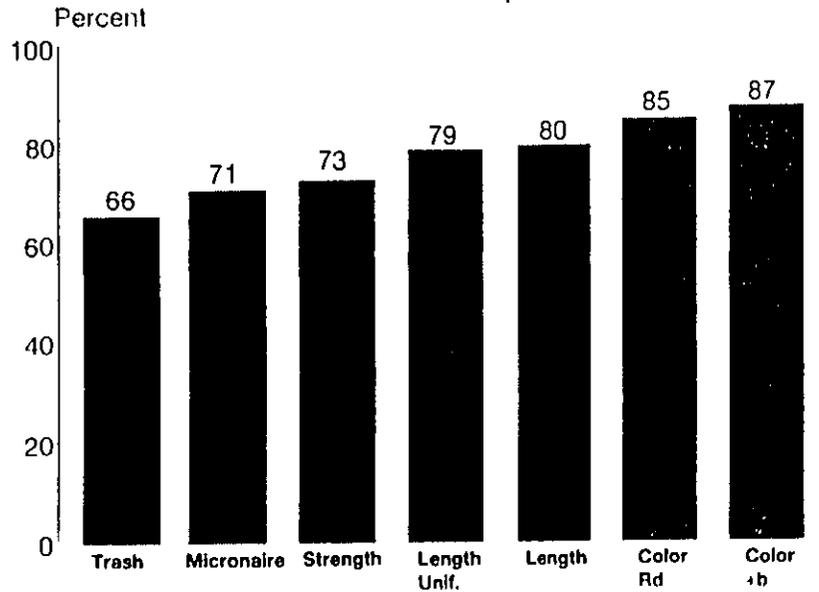
American Pima Length Conversion Chart

32nds	Inches
40	1.20 and lower
42	1.21 - 1.25
44	1.26 - 1.31
46	1.32 - 1.36
48	1.37 - 1.42
50	1.43 - 1.47
52	1.48 and above

V. Reliability of Classification Data

The reproducibility of classing results from one USDA facility to another is the measure used by USDA to determine the reliability of the data it produces. Laboratory-to-laboratory reproducibility is more difficult to achieve than within-lab or same-machine reproducibility, because it is more difficult to maintain identical testing conditions. A comparison of laboratory-to-laboratory results provides a more realistic assessment of the degree of reproducibility that can be expected in the manufacturer's laboratory after shipment to the textile mill. The tabulation on page 18 reflects USDA lab-to-lab reproducibility as of 1992. These results are based on more than 100,000 check-lot samples, randomly selected, daily, from the production of each instrument line and each classer at each USDA classing facility throughout the 1992 season and retested at the agency's Quality Control unit in Memphis.

Lab-to-Lab Reproducibility Of Classing Results 1992 Crop



Results were obtained with permitted tolerances of: Length, 0.02 inches; Length Unif., 1.0 percent; Strength, 1.5 g/tex; Micronaire, 0.1 units; Color Rd, 1.0 units; Color +b, 0.5 units; Trash, 0.1 % area.

VI. Quality Control

Process Control

Process capability studies of classing equipment operated by USDA are carried out periodically to determine the overall capability of the equipment with regard to accuracy. In turn, the study results are used to establish tolerance limits for measurement variations.

Equipment Performance Specifications

Minimum performance specifications of classing equipment are an integral part of the USDA procurement process. Specifications for the delivery of new equipment in 1993 include the following maximum allowable tolerances for accuracy and precision.

Fiber Property	Accuracy	Precision
Length (inch)	± 0.018	± .012
Uniformity (percent)	± 1.200	± .800
Strength (g/tex)	± 1.500	± 1.000
Micronaire (units)	± .150	± .100
Color (Rd) (units)	± 1.000	± .700
Color (+b) (units)	± .500	± .300
Trash (% area)	± .100	± .040

The term "accuracy" refers to how well an instrument measures a certain property in relation to its true value. The term "precision" refers to the ability of an instrument to produce the same measurement result time after time.

Laboratory Conditioning

Atmospheric conditions influence the measurement of cotton fiber properties. Therefore, the temperature and humidity of the classing laboratory must be tightly controlled. Temperature is maintained at 70 °F, plus or minus 1 degree, and relative humidity is maintained at 65 percent, plus or minus 2 percent.

Sample Conditioning

Samples are stored under atmospheric conditions described above for a minimum of 48 hours, longer if necessary, to bring the moisture content of all samples within the range of 6.75 percent to 8.25 percent.

Laboratory Lighting

Lighting conditions in USDA laboratories are maintained to provide a minimum of 100 foot-candles of illumination at the classing level. Special lamps are used to provide the best true color perception. All surfaces in the laboratories are white, gray, or black, and the walls are off-white, to further enhance color perception.

Selection of Cotton for Calibration Usage

Cotton used for instrument calibration must pass rigorous screening procedures. As a first step, USDA conducts an intensive search for the most uniform bales of cotton in the current crop. Candidate bales are screened for uniformity of fiber quality by testing 12 samples drawn from throughout each bale. Bales that do not produce highly uniform measurement results are eliminated from further consideration. Bales that pass preliminary screening then undergo detailed analysis, as described below, to determine whether they meet USDA's high standards for certification and use as calibration cottons.

Establishing Values for Calibration Cotton

Currently, five laboratories work together to establish values for calibration cottons; three are USDA facilities and two are independent laboratories from the research community. The independent labs have atmospheric conditioning equal to USDA labs. The laboratories perform a total of 840 tests per bale and the results are used to determine the values assigned to calibration cottons. For reference purposes, samples of previously established, or "benchmark," calibration cottons are included in the testing, along with samples from the candidate bales. If the test results within a bale exceed prescribed limits, the bale is rejected. If all testing criteria are met, the bale is accepted and its contents packaged for distribution as calibration cotton.

Calibration of Instruments

Instruments are calibrated for length, length uniformity, micronaire, and strength by using calibration cottons. Tiles are used to calibrate color and trash measurements. A calibration check is made at equipment startup and every 2 hours during each operating shift. Calibration tolerances for 1993 are:

Quality Factor Tolerance

Micronaire (units)	± 0.100
Color Rd (units)	± .300
Color 1b (units)	± .300
Trash (% area)	± .050
Length (inches)	± .015
Uniformity (percent)	± 1.000
Strength (grams/tex)	± .700

Check Samples

In addition to calibration, samples of known value are tested on each instrument several times each 8-hour shift. If the test value deviates from the known value by more than specified tolerance limits, corrective action is taken.

Checklot Program

USDA's Checklot Program ensures that all USDA cotton classification facilities across the Cotton Belt provide uniform test results. Under this program, random samples are computer selected from the production of each instrument line and classer during each work-shift. These samples are forwarded by overnight delivery to USDA's Quality Control unit in Memphis, Tennessee, where they are retested. Results are compared with the original classification, and this information is immediately telecommunicated back to the originating office where level adjustments are made as necessary. USDA maintains a record of comparisons for each instrument and classer on a daily, weekly, and seasonal basis. Results of the Checklot Program for the 1992 crop are reported on page 18.

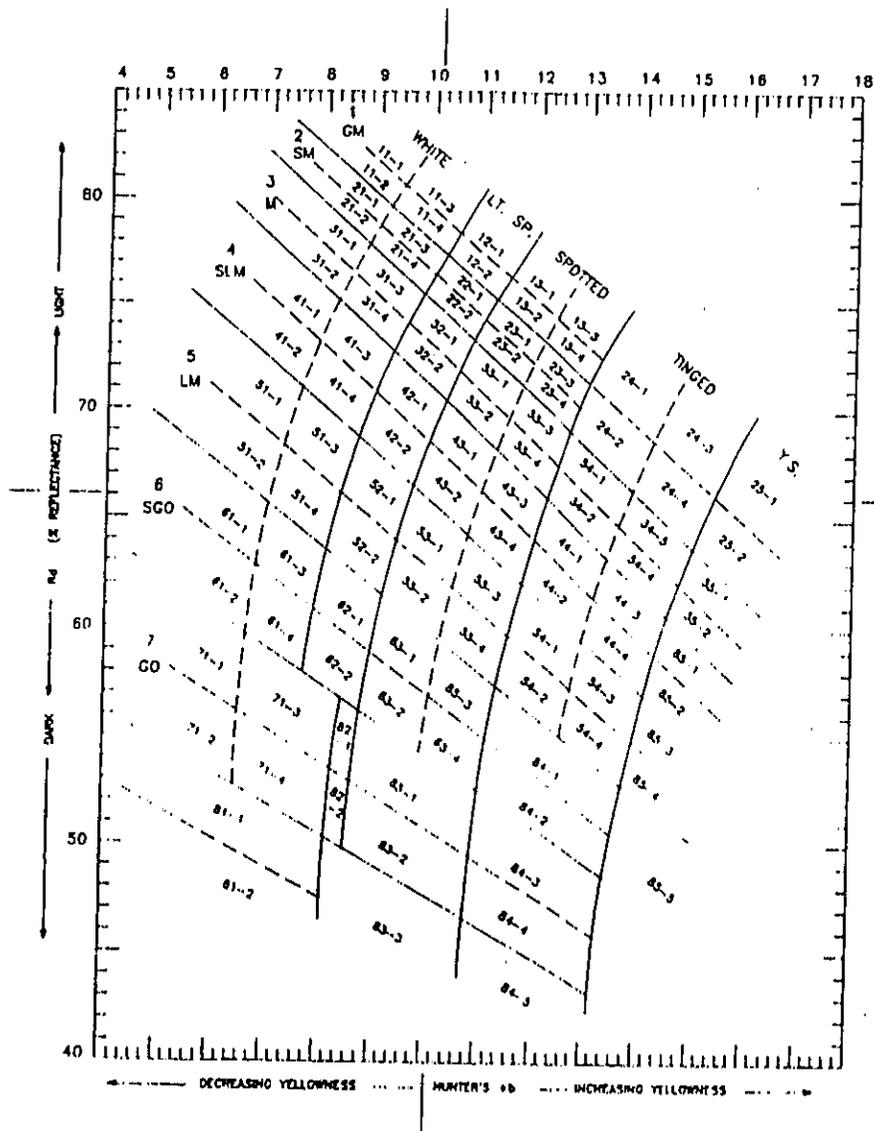


Exhibit A

Color Chart for American Upland Cotton

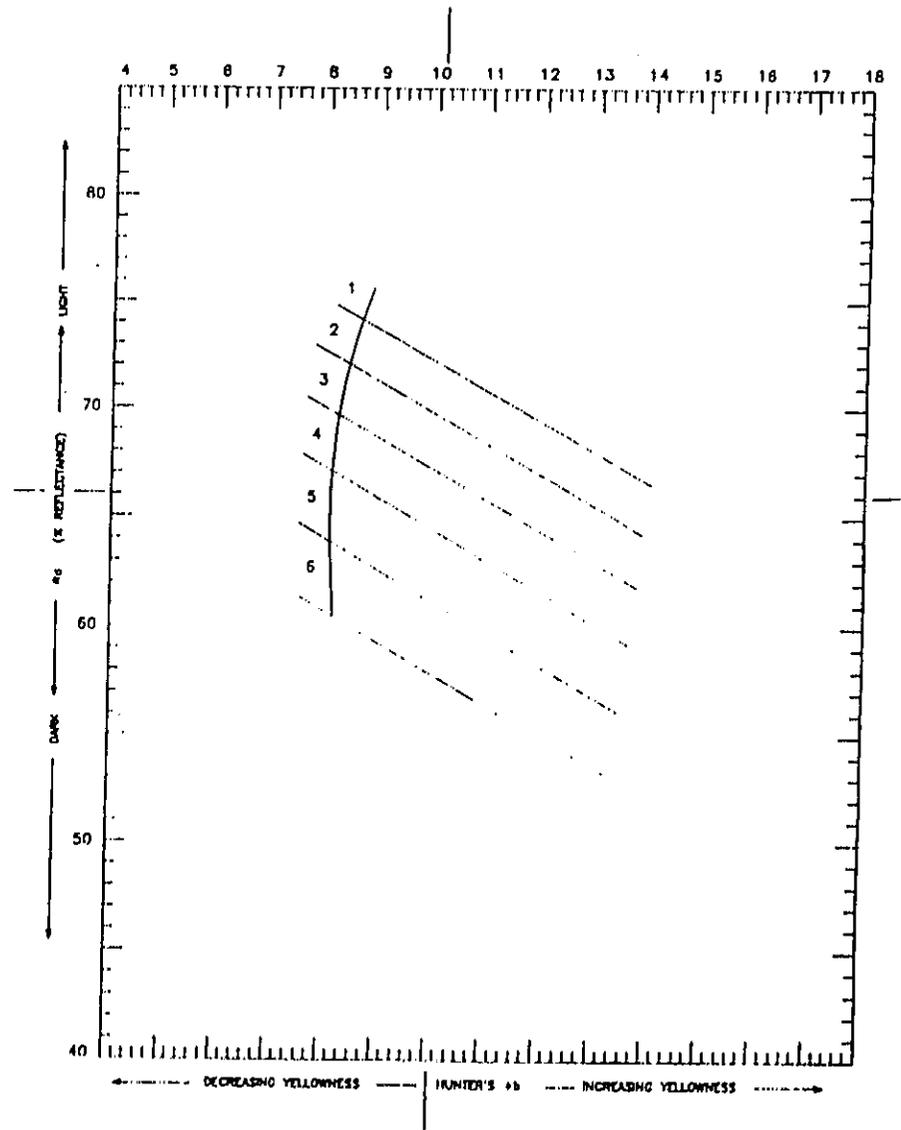


Exhibit B

Color Chart for American Pima Cotton

41

USDA Classing Facilities

Visalia

Phoenix

El Paso

Lubbock

Lamesa

Altus

Abilene

Waco

Corpus Christi

Harlingen

Hayti

Dumas

Rayville

Memphis

Greenwood

Birmingham

Macon

Florence

**A report on the trip to California
and
Arizona (Calcot)**

*in the period between
October 11 thru October 20, 1997*

Ministerial Decree No.1268, 1997

On Monday September 9, 1997, H.E. Dr. Youssuf Wally, Deputy Prime Minister and Minister of Agriculture and Land Reclamation approved the invitational travel of two members of APRP Program Planning Committee (P.P.C.),

Two chairmen of Cotton Holding Companies and two senior MALR staff, in addition to APRP member.

The trip was funded by USAID in the framework of APRP/DAI training plan.

The delegation who traveled included.

- Dr. Bakir Oteifa - MALR Advisor to the Minister
- Dr. Taha Sharkawy - Under Secretary for Plant Quarantine
- Mr. Mamdouh Abdel Sattar, Deputy Chairman, Cotton and International Trade HC
- Mr. Bahee Ahmed el Sherif - Chairman, El-Wadi Cotton Ginning and Trade Co.
- Mr. Hamed Shiati - Private Sector
- Mr. George Kondos - Administrator of Agriculture Policy Reform Program.

The purpose of the trip was to:

- ♣ **Observe and analyze CALCOT methods for marketing US Pima and Hirsultum cotton and for obtaining the best prices for producers and exporters on the spot and futures markets.**
- ♣ **Observe and analyze CALCOT cooperative organization**

According to the itinerary prepared by both APRP/DAI and Mr. Adel Boutros of Calcot, The delegate spent five days observing Calcot's different operation, facilities, farms of some members, a spinning mill at Fresno, ginning mill at Arizona.

The fumigation facilities at the port of Los Angelos, and the USDA classing office.

What is Calcot ?

- * **Calcot is one of the largest handlers of U.S. cotton.**



It annually markets about 1.7 million bales of cotton to customers in the U.S. and over 30 foreign countries on behalf of her 3200 members.

Calcot's worldwide reputation is based on the highest quality cottons, including the San Joaquin Valley's premium Acala cotton, upland varieties from desert regions of Southern California and Arizona, and the extra-long staple American Pima.

- ⇒ Calcot utilizes experienced full-time classers year round to refine the broad ranges of USDA cotton classification for members' benefits, as well as assisting textile mills in selecting weaving lots of cotton..
- ⇒ Each bale in the calcot system is identified and tracked by computer; bales move quickly from the warehouse to shipping deck; electronic classing offers all the information on cotton characteristics.
- ⇒ Calcot classers, assisted by electronic classing lines, handle 1.5 to 2 million samples that calcot receives during the autumn harvest. Almost 1.5 million bales can be stored at one time among calcot's five courthouses in California and Arizona.

Calcot's approach to marketing



Immediately after members' cotton is ginned and stored in the warehouses, Calcot's professional staff calculates the best timing for the cotton sale.

Once the grower becomes Calcot member, he signs a marketing agreement with Calcot stating that all cotton under his or her control will be marketed through Calcot.

- A) Seasonal Pool
- B) Call Pool
- C) Spot Fixation Option
- D) Amcot

This means that :

- **Calcot will have a dependable supply of all grades and volumes and provides equity among members. Calcot members are offered a choice of marketing options to fulfill their needs.**

 According to Mr. Tom Smith, the Chairman of Calcot in a small board meeting that was attended by the Egyptian delegate, **“Calcot is successful because:**

 the president is elected,

 they separate policy from operations;

 an extraordinary grower leadership hires very strong managers to whom they listen very carefully”.

General Observations and Lessons Learnt:

- Calcot uses Egyptian cotton prices as an indicator, and decide their price according to this indicator.
- Egyptian pricing policy hurts Egyptian cotton exports (especially Giza 75)
- Need to recognize that demand on worldwide ELS is decreasing (or stagnant), Why? We need to research the reasons.

- With Calcot, the farmer owns the cotton until after ginned and baled. (The farmer sells the seed cotton)
- Although American Pima reached \$1.10 per pound (it was \$1.80), the farmers are going to short staple because yield is better - 1.2 bales of Pima versus 3.4 bales of short staple per acre at a price of \$0.68-70 per pound.

- Consumer preference is for casual wear - the demand is for short-staple - (World demand for short-staple is 20 X ELS.)
- Calcot's role is to expand market share/exports for its members.
- No blending. All pressing at Gin. Bale by bale classification and computerized stock management.

- In the Meetings with Mr. Tom Smith, Calcot President, he said: "What is the value of your high floor price? Lowering the Egyptian export price will not necessarily increase the demand for it" "Crisis" price (covers expenses) in USA versus "incentive" price in Egypt. Bottom line; Calcot can offer lower priced cotton.
- Egypt is a new corner to the free market. We must learn and change. We must highly consider the future market systems

A recipe For Egypt

?

This diagnosis will be done after consultation with different stakeholders and people involved in cotton marketing to be given in the final presentation. The following are some quick remarks on the current cooperative system.

- A) In a Free Market-Oriented economy, which Egypt is heading for, the cotton cooperative system needs to be based on demand driven approach not a supply driven one.
- B) Cooperatives require capacity building and separating regulation from operation.

- C) Cooperative leaders and staff need to acquire knowledge, skills and abilities in interpreting economic indicators at both national and international levels
- D) Existing cooperative laws should be more flexible to allow cooperatives to better serve their members and engage in such activities that were undertaken by the government in the past.

E) Restructuring or rehabilitation is necessary to increase the cooperative system efficiency, and aggressive training program needs to be designed including off-shore and in country training

Memorandum
to be presented to Dr. Saad Nassar
Director of the Agricultural Research Center
and
Director of the APRP
about the trip California and Arizona (Calcot)
Ministerial decree 1268 for the year 1997

1. In 8/10/1997, the ministerial decree 1268 to authorize the travel of the following people was issued:
 - Dr. Bakir Oteifa, Advisor to the Minister of Agriculture and Land Reclamation
 - Mr. Hamdi Salem, representative of the Ministry of Trade and Provision.
 - Dr. Taha Mohammed Sharkawy, Chairman of the Central Administration for Agricultural Quarantine.
 - Mr. Mamdouh Sayed Abdel Sattar , Executive Deputy to the Holding Company for Cotton and International Trade.
 - Mr. Bahha ElDin Ahmed E Sherif, Chairman of the Valley company for Trade and Cotton Spinning
 - Eng. Hamed El Sheity, representing the private sector in the PPC for APRP
 - Mr. George Tawfik Condos, Program Administrator APRP

The above persons left to the United States (California - Arizona) for 10 days (beside the two days for departure and return) to look at the advanced systems used in cotton trade and export.

The other aim of this trip was to get acquainted with the facilities and guarantees granted by the different American institutions for the American companies and investors who want to invest outside the US in activities based on agriculture either by transferring production technology or industrialization or by marketing in cooperation with the Egyptian private sector; that's why Dr. Bakir Oteifa, Eng. Hamed El Sheiti and Mr. George Tawfik went to Washington from 20 to 24 October 1997 to meet with the Egyptian commercial attache in Washington , officials from the World Bank, the American Export and Import Bank and the American Chamber of Commerce and the American Organization for Investment outside the States (OPIC).

General Remarks and lessons taken from the trip to California and Arizona:

After spending a week with the Association of Cotton Exporters and Importers (Calcot) - having members of about 3200 - and looking at the methods of ginning, sorting, evaporating , storing and marketing of cotton , the delegation found the following;

1. Officials in Calcot and in other international organizations competing with Egyptian cotton, are happy with the marketing policy practiced by Egypt and that is represented in specifying the price of Egyptian

cotton before selling and declaring those prices in advance because this policy allows others to set the selling prices of their cotton in a way that allows easy competition. For example, Calcot sets the prices of Bima cotton base upon the priced determined by ALCOTEXA. So this policy affects the exports of Egyptian cotton especially Giza 75 . this policy led Egypt to loose a big portion of the international market.

- 2 The Exports of the American cotton have their own programs of promotion including the trade mark done by specialists. Whereas the Egyptian cotton does not have all these privileges (attached is the information of exported quantities and the prices of American Bima and Giza 75).
3. American cotton is owned by the producer till he sells it. Therefore , there is no brokers or intermediaries that helps to reduce its price and keep a large percentage of the profits to the farmers.
- 4 The compressing process occurs in the gin. There is no mixing of the cotton .
5. The international demand on long - staple cotton is decreasing ; We have to know the reason for that.
- 6 Despite the increase in the American Bima cotton, the American farmer accepts to cultivate the short-staple cotton because the production is much better. The feddan gives you 2 and 1 Bales of Bima costing 1.1 dollars in return for 3 & 4 bales in from short-staple cotton costing 0/7 dollars.
7. The current laws concerning the cooperatives and the Associations of Water users need to be revised so that these coops will have a role in serving their members. The model of Calcot should be studied and analyzed .

8. It is not possible to imitate the Calcot model to Egypt because there is a difference between the cultivation and production of Egyptian and American cotton. But it is possible to use the Calcot model in marketing and exporting cotton of their members and increase their income.
9. As for the other part of the trip which is to get acquainted with the facilities and grants given by the American institutions in case of having American investors in the East Ewaynat Project, it was proved that there should be an American partner to present these facilities. Due to the short time, it was agreed with the officials on DAI - the company that provides technical expertise for APRP and it is a company that promotes and establishes the agriculture projects outside the states - could establish a service company for the East Ewaynat Project that is responsible for managing the project and to promote the agricultural products and other services for owners and renters.

The consultants of the company suggested to establish a development fund for the project so through it the fundamental basis for the project could be established and to present the irrigation technology and the agriculture machinery.

١٠
١١/١٥

مرفوع لسيدي

الإفادة بالبريد من السيد الأستاذ الدكتور سعد نصار
مقطع رادكس استغارة بندي
مرفوع لسيدي
الإفادة بالبريد من السيد الأستاذ الدكتور سعد نصار
الاصحيات

مرفوع لسيدي
الكاتب للتصوير
بالقطن
١١/١٥/١٩٦٧

مذكرة

للعرض على السيد الأستاذ الدكتور سعد نصار

١٩٧٠١١٠١٨ ٦٢٦٢

مدير مركز البحوث الزراعية ومدير مشروع إصلاح السياسات الزراعية

بخصوص

تقرير عن الرحلة الى كاليفورنيا وأريزونا (كالكوت)

قرار وزارى رقم ١٢٦٨ لسنة ١٩٩٧

١. فى يوم ١٠/٨/١٩٩٧ صدر القرار الوزارى رقم ١٢٦٨ للترخيص بسفر السادة:

الأستاذ الدكتور / بكير عطيفه مستشار وزارة الزراعة واستصلاح الأراضي

الأستاذ محمد حمدى سالم ممثل وزارة التجارة والتموين

الدكتور / طه أحمد الشرقاوى رئيس الإدارة المركزية للحجر الزراعى

السيد / ممدوح سيد عبد الستار النائب التنفيذى للشركة القابضة للقطن والتجارة الدولية

الأستاذ/ بهاء الدين أحمد الشريف رئيس مجلس إدارة شركة الوادى للتجارة وحليج القطن

المهندس / حامد الشيتى ممثل القطاع الخاص الزراعى فى اللجنة التنسيقية

لمشروع إصلاح السياسات الزراعية

السيد / جورج توفيق كندس إدارى برنامج إصلاح السياسات الزراعية

الى الولايات المتحدة الأمريكية (ولايتى كاليفورنيا - وأريزونا) لمدة عشرة أيام (بخلاف يومين لكل من السفر والعودة) وذلك للاطلاع على أحدث النظم المتبعة فى إعداد تجارة وتصدير القطن.

٢. وكان للهدف من تلك الرحلة شق آخر وهو التعرف على التسهيلات والضمانات التى تمنحها المؤسسات الأمريكية المختلفة للشركات والمستثمرين الأمريكين الذين لديهم رغبة فى الاستثمار خارج الولايات المتحدة فى الأنشطة القائمة على الزراعة سواء بواسطة نقل تكنولوجيا الإنتاج أو التصنيع أو التسويق بالمشاركة مع القطاع الخاص المصرى، والذي من أجله ذهب كل من السادة:

١. أ.د. بكير عطيفه

٢. السيد المهندس / حامد الشيتى

٣. السيد / جورج توفيق

الى واشنطن فى الفترة من ٢٠ الى ٢٤ أكتوبر ١٩٩٧ لمقابلة الملحق التجارى المصرى فى واشنطن والسادة المسؤولين فى البنك الدولى وبنك التصدير والاستيراد الأمريكى والغرفة التجارية الأمريكية والهيئة الأمريكية للاستثمار الخاص خارج أمريكا (أوبيك).

٣. الملاحظات العامة والدروس المستفادة من الرحلة الى كاليفورنيا وأريزونا:

بعد قضاء أسبوع مع جمعية منتجى ومصدرى الأقطان فى كاليفورنيا والمعروفة بإسم (Calcot) والاطلاع على أساليب حلق وفرز وتخزين وتسويق الأقطان الخاصة بأعضائها البالغ عددهم حوالى ٣٢٠٠ عضو. لاحظ الوفد الآتى:

١-٣ أن المسؤولين فى جمعية منتجى الأقطان فى كاليفورنيا وأريزونا (كالكوت) وكذلك الهيئات الدولية الأخرى المنافسة للقطن المصرى سعداء بالسياسة التسويقية التى تمارسها مصر التى تتمثل فى تحديد سعر القطن المصرى قبل البيع وإعلان تلك الأسعار بصورة علنية مقدما لأن تلك السياسة تسمح للأخرين بوضع أسعار بيع لأقطانهم بطريقة تمكنهم من المنافسة السهلة ومثال على ذلك فان كالكوت تضع أسعار القطن البيما بناء على السعر الذى يحدده إتحاد مصدرى الأقطان بالاسكندرية (ALCOTEXA) وعلى هذا فان تلك السياسة تلحق الأذى بصادرات القطن المصرية وخاصة جيزه ٧٥ وقد ادت تلك السياسة الى ان تفقد مصر جزء كبير من السوق العالمية

٢-٣ ان صادرات القطن الأمريكى سواء القطن الشعر أو الغزول أو الأقمشة لها برامجها الخاصة بالدعاية والترويج بما فى ذلك علاماتها التجارية المميزة والتى يقوم بها فريق من المتخصصين بينما لا يحصل القطن المصرى على أى من هذه الميزات (مرفق بيان الكميات المصدرة وكذلك أسعار القطن البيما الأمريكى وجيزه ٧٥).

٣-٣ يظل القطن الأمريكى ملكا للمنتج حتى يتم بيعه أى أنه لا يوجد سمسرة أو وسطاء وهذا بدوره يساعد على تخفيض أسعاره ويحافظ على نسبة كبيرة من الأرباح للفلاح.

٤-٣ تحدثت عمليات كبس القطن فى الملحج وليس هناك خلط للأقطان إذ انهم يرون أنه ليس هناك حاجة سواء لعمليات الخلط أو إدارة حكومية مركزية مسنولة عن كبس القطن.

٥-٣ لابد من الاعتراف ان الطلب العالمي على الأقطان طويلة التيلة وفاقئة الطول يتناقص ومطلوب معرفة أسباب ذلك التناقص.

٢-٣ بالرغم من ارتفاع أسعار قطن اليبسا الأمريكى إلا أن الفلاح الأمريكى يقبل على زراعة الأقطان قصيرة التيلة لأن الإنتاج أفضل بكثير إذ ان القدان يعطى ١٢٠ باهه من اليبسا بسعر ١ و١ دولا مقابل ٤٠٣ باهه من الأقطان قصيرة التيلة بسعر ٧٠٠ دولار.

٧-٣ ان القوانين الحالية الخاصة بالتعاونيات أو جمعيات مستخدمى المياه فى حاجة الى مراجعة شاملة بحيث تصبح هذه الجمعيات قادرة على القيام بدور فعال فى خدمة اعضائها، والمطلوب دراسة وتحليل النموذج الخاص بجمعية منتجى الأقطان فى كاليفورنيا وأريزونا (كالكوت) وإمكانية تطبيق أسلوبها فى التعاقد بينها وبين اعضائها المنتجين للقطن.

٨-٣ بالرغم من وجود إختلاف فى أسلوب زراعة وإنتاج القطن المصرى والأمريكى وبالتالي لا يمكن نقل نموذج كالكوت كما هو فى مصر، ولكن يمكن الاستفادة بأسلوب كالكوت فى عمليات تسويق وتصدير الأقطان الخاصة بأعضائها وزيادة دخولهم.

٤. فيما يختص بالثق الأخر من الرحلة وهو التعرف على التسهيلات والضمانات التى تمنحها المؤسسات الأمريكية فى حالة وجود مستثمرين أمريكيين فى مشروع شرق العوينات، بعد مقابلة المسئولين فى المؤسسات المختلفة ثبت أنه لا بد من وجود شريك أمريكى حتى يمكن تقديم تلك التسهيلات ونظرا لضيق الوقت حيث أن المجموعة لم يكن أمامها إلا أربعة أيام فقد تم الاتفاق مع المسئولين فى شركة DAI وهى الشركة التى تقدم الخبرة الفنية لمشروع إصلاح السياسات الزراعية، على متابعة الموضوع ونوقشت بعض الآراء منها أن شركة DAI للخدمات التجارية وهى شركة خاصة بترويج وإيشاء المشاريع الزراعية الكبرى خارج أمريكا يمكنها أن تتشىء شركة خدمات لمشروع شرق العوينات تكون مسؤولة عن إدارة المشروع وتسويق المنتجات الزراعية الخاصة به والخدمات الأخرى للملاك أو المستأجرين، واقترح مستشاروا الشركة إنشاء

ما يسمى بصندوق تنمية (Development fund) خاص بالمشروع يمكن من خلاله إنشاء البنية الأساسية الخاصة بالمشروع وتقديم تكنولوجيا الري والميكنة الزراعية في تلك المنطقة.