

**MONITORING, VERIFICATION AND EVALUATION UNIT  
AGRICULTURAL POLICY REFORM PROGRAM**

**MVE UNIT  
APRP**

*Sponsored by:*

**Government of Egypt,  
Ministry of Agriculture and Land Reclamation**

**United States Agency for International Development/Cairo  
Office of Economic Growth, Agricultural Policy Division**

**THE IMPACTS  
OF  
PRIVATIZATION  
ON THE  
COTTON  
GINNING  
INDUSTRY IN  
EGYPT**



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May, 2000

Special Study No. 3

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## LIST OF ACRONYMS

AERI	Agricultural Economic Research Institute
ARC	Agricultural Research Center, Ministry of Agriculture
APCP	Agricultural Production and Credit Project (USAID)
APRP	Agricultural Policy Reform Program (USAID)
ALCOTEXA	Alexandria Cotton Exporters Association
CALCOT	California Cotton Cooperative
CAPMAS	Central Agency for Public Mobilization and Statistics
CAAES	Central Administration for Agricultural Economics and Statistics
CAPQ	Central Administration for Plant Quarantine (MALR)
CASC	Central Administration for Seed Certification and Testing
CASP	Central Administration for Seed Production
CO	Company
CIF	cost, insurance, freight
CATGO	Cotton Arbitration and Testing General Organization
CIT-HC	Cotton and International Trade Holding Company
CIF	Cotton Improvement Fund
CRI	Cotton Research Institute (ARC, MALR)
CSPP	Cotton Sector Promotion Program (GTZ)
ETMF	Egyptian Textile Manufacturers Federation.
ELS	Extra long staple cotton
FD	Feddan (4200 sq. meters, equal to 0.42 hectares or 1.037 acres)
FOB	Free on Board (In regard to exports of Egyptian cotton this includes all costs incurred in Alexandria in exporting cotton)
FY	Fiscal Year
GATT	General Agreement on Tariffs and Trade
GO	Ginning outturn (kantarss of lint cotton obtained per kantar of seed cotton)
GOE	Government of Egypt
GTZ	German Technical Assistance Program (Deutsche Gesellschaft Fur Technische Zusammenarbeit)
HC	Holding company
HVI	High volume instrument testing systems
ITMF	International Textile Manufacturers Federation
IPM	Integrated Pest Management
KG	Kilogram
Lb.	pound (English unit of weight, equal to 0.45359 Kg.)
LE	Egyptian Pound (monetary unit)
LK	Lint kantar, or metric kantar, (equal to 50 Kg. of lint cotton)
LS	Long staple cotton
MK	Metric kantar (equal to 50 Kg of lint cotton)
MT	Metric Ton.
MMT	Million Metric Ton
MALR	Ministry for Agriculture and Land Reclamation

MPE	Ministry of Public Enterprise
MLS	Medium long staple cotton (varieties produced in Upper Egypt)
MVE	Monitoring, Verification and Evaluation Unit of APRP
Ne	English yarn count
PBDAC	Principal Bank for Development and Agricultural Credit
RDI	Reform Design and Implementation Unit of APRP
RMC	Ready Made Clothes
RMG	Ready Made Garments
SK	Seed kentar (equal to 157.5 Kg of seed cotton)
SWRMC-HC	Holding Company for Spinning, Weaving, and Ready Made Clothes
TCF	Textile Consolidation Fund
TMT-HC	Textile Manufacturing and Trade Holding Company
UD	Universal Density cotton bale (American size bale of 480-500 lb.)
US\$	United States dollar
USDA	United States Department of Agriculture
USAID	United States Agency for International Development
WTO	World Trade Organization

## ACKNOWLEDGMENTS

The authors acknowledge the leadership of Gary Ender, Chief of Party, APRP-MVE and appreciate his efforts in bringing together the resources necessary to conduct this study.

To John Holtzman we owe sincere thanks for the original idea for this study and his conceptual contributions in preparation of the terms of reference. It was John's idea to portray the El Arabia Company as a company that had been privatized and as a result has made very positive strides toward improving the ginning industry.

Amin Abaza, Managing Director, Modern Nile Company and Dr. Hani Olama, Gen. Mgr. of El Arabia Co. gave us their full cooperation in describing the improvements made by their company in their gins since privatization and provided us with a wealth of information about the operations of the company. This study would not have been possible without their assistance.

The management of El Nil Ginning and the three public ginning companies, MISR, Delta and El Wadi also co-operated fully in providing data on their operations and the equipment in each of their gins.

Nabil El Sentrecy provided assistance in gathering data from the El Nil and El Wadi Ginning Companies and information on the history of the ginning industry, on bale presses in Egypt and also provided data on current ginning operations.

Mohammed El Khishen provided valuable assistance in obtaining data from El Arabia, MISR and Delta ginning companies.

Mohamed Atwa providing data on the Nefertiti Ginning Company and other operations in Middle and Upper Egypt.

We owe a debt of gratitude to Flora Naeim who assisted in many ways with translations, computer file maintenance, data entry, preparation of materials for interviews, appointments, and seminar presentations.

We thank Helmut Shoen of the Egyptian-German Cotton Sector Promotion Program for providing access to his library of information on cotton and his ideas and insights on operations in the cotton industry.

The greatest contribution to this study was made by all of those who cooperated with us in the interviews we conducted. They gave us their valuable time and provided most of the information used in this report. These people are listed in Annex I.

## EXECUTIVE SUMMARY

**Objectives.** The main objective of this study is to describe the operations and economic performance of a successfully privatized ginning company and to distill lessons for further ginning industry and other agribusiness privatizations. A second objective is to compare the performance of the ginning industry before and after the two privatizations began (in 1996/97). A third objective is to compare the operations and performance of a private ginning company with other firms in the industry.

**Background.** Under public ownership and operation of Egypt's cotton gins, which existed from 1964 to 1994, a lack of competition resulted in little advancement in the gins. Also contributing to the lack of improvements was a significant over-capacity in ginning, which resulted from a reduction in cotton production in the country. During the 30-year period of public control, seed cotton was allocated among gins on the basis of ginning capacity, so no ginning company wanted to close any gins. This allocation procedure perpetuated the excess capacity problem. Leasing of the gins by private firms during 1994-96 resulted in no improvements in the gins. Lessors would not likely make long-term investments, which would only add to the Government's assets.

All of the cotton gins in Egypt now use the same type of ginning equipment: the McCarthy roller gin with a reciprocating knife and leather faced rollers, which was invented in 1840. This design is still regarded by the trade as the best technology for ginning the ELS cotton produced in Egypt. A key problem in ginning today is not the use of these old roller gins, but the lack of auxiliary equipment to clean the cotton before and after ginning. Most gins in Egypt were built when handpicked cotton was clean and did not need cleaning before ginning. Hence, few gins were originally built with adequate equipment for cleaning the seed cotton or the lint cotton.

**Findings.** Market liberalization or privatization does not always lead to improvements, but in the case of the Egyptian cotton ginning industry, privatization has thus far produced some very positive results. Only two of the five public ginning companies have been privatized, but major improvements in the ginning industry have resulted. Privatization has produced improvements in cotton cleaning equipment, new cotton gin presses, specialized export facilities, and increased competition.

El Arabia Ginning Company came under private control in October 1996. One of the first actions taken by El Arabia was the divestiture of two of its 14 gins. The owners put the profits from these sales back into the ginning business. By the next season, the company had begun to modernize its facilities. After four years it has made major improvements in nine of its 12 gins. These improvements have included the addition of seed cotton cleaning equipment at all nine gins, automation of the feeding of the gin stands at two gins, pneumatic systems added at five gins, UD bale presses at six gins, modification of the old press at one gin, and farfarra facilities at one gin. As a result, El Arabia Co. has converted nine very mediocre gins into some of the best-equipped gins in the country.

The Baraka gin, now owned by the Modern Nile Group, has been converted from a gin into a specialized cotton-exporting facility. With two UD presses and three farfarra rooms the exporting client has complete control over procedures for blending and cleaning all varieties of cotton for export. This

is a new service that was not previously available anywhere in the cotton industry. In early summer 2000, El Arabia announced that major improvements were underway at three of their gins. New Indian roller gins were being purchased and will be placed in relocated gins in Fayoum and Kafr El Sheikh and also used in refitting of their old Giza 70 gin in Damanhour.

El Arabia has added a quality control department to its corporate structure that has placed qualified inspectors at each gin. These inspectors have the authority to stop operations if any part of the ginning operation is not performing properly. El Arabia, along with the Modern Nile and Unirab Spinning and Weaving companies, is planning to initiate a training school for ginning technicians (carpenters).

El Nil Ginning Company came under private control in July 1997. El Nil has also made some improvements, but it cannot match the record of El Arabia. It added farfarra facilities and new UD bale presses at three of its better gins to make them into repressing facilities that can prepare cotton for direct export. These gins are licensed to repress for export any variety of cotton while ginning a different variety.

Excess labor has been a problem in many industries, including ginning. Closing a public gin may not reduce the excess labor problem because the redundant workers have typically been absorbed by the remaining public gins. In contrast, El Arabia has established its own early-retirement program and has reduced employment in the company by 30 percent in just four years. In the absence of a program for early retirement in the public sector, privatization of public gins may be a more successful way to deal with the excess labor problem than closure.

Competition in the ginning industry has improved since privatization. Ginning charges are still set for the public companies, but discounts from these charges are now common in the industry. Seed cotton is no longer allocated to the gins on the basis of capacity. This year one of the public gins, Delta, also vigorously competed for volume by offering new services. Also, the public repressing facility in Alexandria had to respond this year with a 30 percent cut in its charges for repressing.

The MALR determines which gins are to be used to gin each variety and which gins are to be used for ginning cotton intended for the next season's planting seed. Within those restrictions, some choice of gin remains for almost every variety. All private traders report that they choose the gin at which they want to gin their cotton, within these MALR restrictions. This decision is based on ginning charges, location, services provided, and the ginning reputation of the gin. However, in the 1999-2000 season the public trading companies had a tendency to use the public gins, and allegations were heard that the holding companies require this.

**Recommendations.** Additional progress in the ginning industry is not likely as long as a large portion of the seed cotton is traded by public companies. Hence privatization of both the public ginning and trading companies needs to be completed. Most private traders want to see more improvements in the ginning industry, but they are reluctant to make such investments under the current circumstances of excess capacity. The Government removed six gins from service in 1999, but more gin closings are needed. The industry still has average excess capacity of about 90 percent, but much more so in Upper Egypt. There is also a need to relocate gins to remove them from residential areas to reduce noise and

dust pollution. The public ginning companies will not likely do these relocations and improvements and, hence, for the good of the industry, the Government should move to complete the privatization of the remaining companies in the industry.

Privatization of the three remaining public ginning companies is now at a standstill. The Government has chosen to lease the land on which the gins are located rather than let private companies turn a profit on sale of the land. This policy has stalled privatization. This impasse needs to be overcome so that privatization of the entire industry can proceed. Perhaps the GOE would be willing to permit the private companies to sell the land on which these gins are located, provided that any profits resulting from land sales be reinvested in the industry, or in some related cotton or other agricultural industry. El Arabia has invested its gains in the ginning industry. Other investors should be expected to do the same. The Government should not be concerned with excess profits, only with departure of capital from the industry.

The Government should also consider auctioning its gins in smaller lots. An individual private trading company does not need, or want, 10-12 gins. They need 2-4 gins only. The three remaining public ginning companies should be split into smaller units and offered for sale on the stock market or by outright sale to investors. The ginning industry would likely be more competitive with 15-20 ginning companies instead of only 5-6.

## 1. INTRODUCTION

Cotton as it comes from the field, is, by weight, approximately two-thirds seed and one-third lint. The first major processing operation needed to convert raw cotton (or seed cotton) into cloth is the process called 'ginning'. The ginning industry was nationalized in the 1960s along with all other parts of the cotton sub-sector and remained 100 percent public owned until privatization began in 1994.

Ginning not only removes the seed, but this operation has an important role to play in cotton quality. The quality of the cotton can be improved or damaged during the ginning process. A recent study of the quality of Egyptian cotton indicated that there is a need for those in the Egyptian cotton export trade to be concerned about the quality of the cotton (10). Egypt has lost market share in recent years and can regain that market share only if its product is of high quality.

The MVE unit of APRP is responsible for monitoring, and assessing the impact of the policy reforms of the APRP. This special study is a part of this effort. This report will attempt to document and assess the impacts of privatization on performance in the cotton ginning industry and the impacts on the remainder of the cotton subsector. This report will concentrate on determining what impact privatization has had on new investments and the adoption of new technology in the ginning industry with the aim of producing better quality cotton and bringing Egypt into a more competitive position in international cotton markets.

Ginning is the process of separating the cotton lint from the cotton seed. M. Abdel-Salam states that in the early days of cotton production, the seeds were separated by hand at the rate of one kilogram of lint per worker per day (16, page 396). A wide variety of mechanical devices have been invented in the world for this purpose. Eli Whitney, an American, invented the first cotton gin, a saw gin, in 1793 for use on upland cotton.

Practically all experts on Egyptian cotton agree that the best mechanical device for ginning the type of cotton grown in Egypt, especially ELS cotton, is the gin known as the McCarthy roller gin with one reciprocating knife and leather-faced rollers, invented in 1840 (16, page 396). The individual gin stand is a relatively small machine with 40-inch (about one meter) rollers. The seed cotton is fed into a hopper on top of the machine. Rollers slowly feed the cotton down to the leather rollers, which carry the seed cotton toward the reciprocating knives, which cut the seed from the lint. These gin stands are about 1 and 1/2 meters high and about 1 and 1/2 meters in width. Because of the slow moving reciprocating knife, the capacity of a gin stand is, on average, only about one kantar of lint cotton per hour.

In Egypt the typical unit of a cotton gin has 36-72 gin stands which are arrayed in two long rows. The ginning stands are fed by either manual or automatic methods and the lint cotton falls from the stands onto conveyor belts to be carried to the press.

Although most of the individual McCarthy gin stands in Egypt are very old, some well over 100 years, they are given annual care and maintenance. The leather faced rollers and the knives are the major

working parts of these gin stands. The leather-faced rollers must be replaced with new rollers about twice each season. A major task of the permanent employees of the gins is to rebuild these gin stands and leather rollers each year during the off season.

The gin stands are similar throughout Egypt but the equipment used to handle the cotton before and after ginning is not identical, in fact the gins differ widely in this respect. A major variation occurs in the facilities for cleaning the seed cotton and the lint cotton. Thus, although ginning is primarily the task of removing the seed, a major adjunct activity is the cleaning of the cotton. Seed cotton that is properly cleaned and ginned can result in lint cotton of a higher grade than the original seed cotton. This additional equipment within the gins is a major emphasis of this study.

Poor ginning can also result in the production of neps. Neps are small knot-like aggregates of fiber which result in imperfections in cotton yarn that detract from the appearance of yarn and fabric since they do not absorb dyes well and also cause yarn breakage (16, pp. 363-4).

## 2. BRIEF HISTORY OF THE GINNING INDUSTRY<sup>1</sup>

### 2.1 Nationalization

A total of 116 gins were in operation in Egypt at its peak<sup>2</sup>. These were all privately owned and operated. Prior to nationalization, ginning operations were not performed by specialized ginning companies, but rather the gin operators also were traders and exporters and financed a large part of the cotton production and trade. These facilities were then owned by private cotton export companies or ginning companies and some by individuals.

Nationalization of cotton ginning in Egypt occurred in several steps. In 1963 the Government declared that all gins were the property of the Government, and most of the gins were grouped into three companies, Misr, Delta and El Wadi which also performed cotton trading. At that time there were approximately 100 ginning plants or factories, with 6000 gin stands.<sup>3</sup>

In 1965 all of the ginning operations were separated from the trading operations and put into 5 companies: Misr, Delta, El Wadi, El Arabia and El Nil. These same five companies still exist today. Decree No. 472 of the Minister of Economy and Trade issued in 1965 established the following companies with the following number of gins:

El Arabia	23
El Nil	16
Misr	19
Delta	21
<u>El Wadi</u>	<u>20</u>
Total	99

During the period of public ownership, the cotton crop was apportioned among these five public companies according to the ginning capacity of the company, location and the quantity produced of each variety. This policy of division of the crop on the basis of the number of ginning stands was to continue until privatization began in 1994.

Between 1975 to 1985 a program was initiated to improve some of the gins and to remove some poor facilities; 31 old gins were closed, and several new gins were built during this period. The new gins are those that people in the trade still call the 'developed' or 'new' gins. Three of these gins have 72 stands, such as the gins at Ehnasia, Tala, and Sherbeen, and nine were double units with a total of 144 stands. These double units are the gins at Zagazig, Itay El Baroud, Kafr El Zayat and some others.<sup>4</sup> The main improvements incorporated into these new gins were the pneumatic systems to move the seed cotton

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<sup>1</sup> This information on nationalization of the gins was based mainly on information provided by Nabil Sentricy.

<sup>2</sup> As reported by Nabil Marsafawy, Chairman of CIT-HC.

<sup>3</sup> See Annex D of (1).

<sup>4</sup> These gins are sometimes called the 'improved' or 'developed' gins. See Reference #1, pages 49-53.

from the opening tables to blending rooms and from the blending rooms to the ginning floor and the systems to automatically feed the stands. These pneumatic systems not only move the cotton; they also remove dust, small dirt particles, and plant material from the seed cotton. Some of these new gins also have space for inside storage of seed cotton. These gins remain as some of the better equipped gins in the country. Very few further improvements occurred in the ginning industry, in terms of equipment, from the early 1980s until private ownership of the gins began in 1996.

During the 1960s, before nationalization, the ginning season was considered to last from early September to the end of March. During that period, gins were expected to work two or three eight-hour shifts per day giving up to 3,000 hours per gin stand per season. Maximum output per stand was estimated at 3,000 kentars per season based at a rate of one kantar per stand per hour.<sup>5</sup>

Production of cotton averaged 8.5 million kentars per season during the 1950s and 9.3 million per season during the 1960s, with production exceeding 10 million kentars seven years between 1960 and 1973.<sup>6</sup> Thus, in the peak production years the average gin stand processed 1750 kentars per season.

Prior to nationalization these gins were not subject to restrictions on ginning by variety. More than one variety was ginned in many gins. It was the responsibility of the CATGO graders (sometimes called 'classers') to check for mixed varieties and to avoid the marketing of mixed variety cotton.

During the nationalization period, from 1965 until 1995, every gin in Egypt was owned and operated by the Government. Actually, a number of small illegal gins called '*dawaliib*' have operated in Egypt for many years prior to 1965 and some are still operating.<sup>7</sup> The *dawaliib* are small gins that operate individual ginning stands to remove seed from the lint. There were many years when the Egyptian cotton producers were required to market their seed cotton with the Government and were paid prices that were far below its international price. The *dawaliib* paid farmers higher prices for their cotton than did the Government and used the lint for the production of mattresses and for furniture upholstery. The Government would not sell cotton lint to these users but attempted to keep all of the lint for the spinning industry, because it supposedly had higher value in spinning. It is estimated that the *dawaliib*, as a group, never purchased more than one percent of the seed cotton from growers.

The Government considers these gins as dangerous to the industry because the operators of these companies are careless about mixing the seeds from different varieties and then selling the seed to farmers for planting. Such seed, if used for planting, would result in contamination of the seed and deterioration of the variety, or of the lint, if mixed with other cotton varieties at the legitimate gins.

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<sup>5</sup> In Egypt, the physical unit of measurement of lint cotton (cotton after ginning), is the kantar, or lint kantar, which is equal to 50 kilograms. Approximately three times as much seed cotton, by weight, is needed to produce a kantar of lint cotton. Hence, in Egypt seed cotton is measured in 'seed kentars' which are equal to 157.5 kg. From one seed kantar one normally receives about 50 kg. of lint cotton, about 100 kg. of cottonseed and 7.5 kg. of scarto and other waste products.

<sup>6</sup> Egyptian Cotton Gazette. No. 113, October 1999.

<sup>7</sup> Private traders interviewed in 1999 reported selling to *dawaliib* operators and even operating *dawaliib* themselves.

## 2.2 Privatization Through Leasing

Leasing of public gins by private companies was the first step in the privatization of ginning. It was the opinion of the holding company officials that private firms would not be interested in buying the gins because of the high value of the land on which many of the gins were located. Hence, during the summer of 1994 all of the five public ginning companies offered some of their gins for lease. Three private sector cotton trading companies, Al Ahli, Modern Nile, and Nefertiti, signed leases on public gins during the summer of 1994 for the 1994-95 season.

In 1994 Al Ahli Company leased 16 gins, Modern Nile leased one gin and Nefertiti leased one gin (See Table 2.1). But the gin-leasing era was short-lived. Al Ahli, the major lessor, had large trading losses in 1994-95 and dropped the leases on 5 gins before the start of the 1995-96 season, and had discontinued leasing gins entirely by the end of the 1995-96 season.

Modern Nile leased a gin at Kanater from Delta Co. for two seasons (1994-95 and 1995-96). This gin had 60 stands. This lease was terminated after two years when Modern Nile acquired control of El Arabia Company in late 1996.

Nefertiti leased a gin from El Nil Company for the years 1994-95 through 1998-99 (5 years). This gin with 60 stands was located in Minya. This lease also included an oil seed crushing facility. Prior to the 1999-2000 season, this gin was returned to El Nil Company. Nefertiti built a gin at a new location in Minya (see below).

Leasing of the gins was thought to be an important step toward privatization, but it had one important drawback: no improvements in equipment were made in any of the leased gins during this period. Such long-term investments could not be expected under the short-term leases. The improvements that were needed had to await private ownership.

## 2.3 Private Ownership

Private ownership of gins in the post-nationalization era began in 1995 with the construction of the Baraka gin by the Egypt Cotton Trading Company. Construction of this gin started in 1994-95 with ginning operations starting in November of 1995. This gin included 12 rotary knife (also known as roto-bar) type gin stands purchased as used equipment in the USA. The gin also included two farfarra rooms and a UD bale press<sup>8</sup>. This gin was used to gin 34,000 kentars of Giza-75 during the 1995-96 season and 20,000 kentars of Giza-75 during the 1996-97 season. The owners were never satisfied with the quality of the ginned cotton from this gin, so ginning operations at this gin were discontinued during 1996-97. This facility was later sold to the Modern Nile Group. We discuss the Baraka Gin further below.

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<sup>8</sup> UD =Universal density. This is the size and density of bales used in the USA. Bale weights ranged between 480-500 lb. Bale densities and sizes will be discussed in more detail later.

**Table 2.1: Gins leased by Al Ahli Company in 1994**

<b>Company Owning Gins</b>	<b>Gin Location</b>	<b>Number of Stands</b>
<b>Delta</b>	Mansoura # 1	56
	Damanour # 2	46
<b>El Arabia</b>	Mansoura #2	48
	Damanour #2	46
	Simbelaween	70
	Fayoum	36
	Desouk	40
	Samanoud	60
<b>Misr</b>	Mahalla El Kobra	78
	Tameia	50
	El Fashn	46
	Fayoum	54
<b>El Nil</b>	Kafr El Sheikh	70
<b>El Wadi</b>	Minia El Kom	60
	Abou El Shokok	60
	Toukh	56
<b>Total</b>		876

Private ownership of the public gins began in 1996-97 with the sale of two of the five public companies. El Arabia was purchased by the Modern Nile Group in October 1996, and is now in the fourth year of operation under private management. El Nil Ginning Company was privatized in July of 1997.

This study will analyze the progress and improvements made by both of the companies that have been privatized, but since the Arabia Company appears to be the more successful and progressive of the two companies, it will receive most of our attention. Also of particular interest will be the actions taken by the Arabia Company in dealing with the problems of excess ginning capacity and excess labor in the industry.

#### **2.4 Completion of Privatization**

Three ginning companies, Misr, Delta and El Wadi are still under public control. Decisions regarding the privatization of these gins will not be made by the managers of these companies, but by the managers of the holding companies or within the MPE.<sup>9</sup>

One reaction of GOE officials to the privatization of El Arabia was that they felt that the land was undervalued. Currently the GOE wants to retain the land on which the gins are located, but lease it to the privatized companies as long as they keep the gins operating. The lack of the option to own the land has stalled the privatization process.

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<sup>9</sup> Misr Ginning is under the CIT-HC, Delta Ginning is under the SWRMC-HC, and El Wadi Ginning is under the TMT-HC.

In January 2000 the officials of four private trading companies, El Mabrouk, Nassco, Modern Nile, and ATICOT, reported that they had been negotiating with the SWRMC-HC regarding the purchase of the Delta Ginning Company.<sup>10</sup> These trading companies reported that negotiations were halted mainly because the Government does not want to sell any land on which the gins are located, but wants to hold the land on leases of up to 25 years as long as the gins are in operation. These four private companies had desired to divide up the gins in the Delta Company so that each company had a few gins. But their plans also included closing some of the gins. Land ownership was a requirement of these potential buyers to allow full control for gin improvements and closings.

The impasse on land ownership could perhaps be broken if the Government would accept some other requirements in lieu of its requirement on leasing of the land. The Government does not want to see the private sector profit from the sale of the land that was used for the gins. One possible solution is to sell the land using a proper, accurate estimate of the current market value of the land. If this solution cannot be arrived at, then perhaps the Government would accept an arrangement whereby all, or a specified portion, of the receipts obtained from the sale of this land be required to be reinvested in the cotton subsector. These investments could be in new gins or improvements to ginning equipment to modernize the industry or in investments to some other part of the cotton industry such as new spinning equipment or cotton seed delinting plants. These investments would be owned by the private owners but would benefit agriculture and the cotton subsector.

## **2.5 Ginning by Traders**

Most of these same private traders who were interviewed indicated that there were definite advantages in ownership of ginning facilities by a cotton trader.<sup>11</sup> The advantages listed included complete control by the cotton owner of ginning quality, cost control, and control of the timing of ginning. All of these aspects are important to cotton trading and are problems that are currently being reported by those traders who must hire ginning services.

Most private traders agree that from the standpoint of lint quality control, each trader should have his own gins. However, the MALR requirement to gin only one variety per gin, along with the large number of varieties of cotton in Egypt, are drawbacks to gin ownership. A trader may want to trade and invest in a gin for an export variety, but the MALR may suddenly switch the area of his gin to a non-export variety. Also, under this MALR ginning policy, a trader may need a gin for each variety. However, most private traders do not trade all varieties. For example, during the 1999-2000 season a total of 7 commercially produced varieties of cotton were marketed in Egypt.<sup>12</sup> A total of 17 private

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<sup>10</sup> The SWRMC-HC desired to retain the three best-equipped gins in the Delta Company and sell the remaining gins.

<sup>11</sup> This view is not held by all, but by most traders. A minority of the traders prefer to concentrate their efforts on cotton trading and prefer to let others deal with the labor and technical problems of ginning.

<sup>12</sup> A small area of an 8<sup>th</sup> variety, a new ELS variety, Giza 88, was grown but this was entirely for seed multiplication purposes and all the lint of this variety was marketed by EMEPAC.

sector companies delivered seed cotton to gins during this season.<sup>13</sup> None of these 17 private companies traded Giza 45. The tabulation of companies and varieties was as follows:

<u>Number of varieties Traded</u>	<u>Number of Companies</u>
6	1
5	4
4	2
3	2
2	2
1	6

Hence, only 9 of these 17 private trading companies would have needed more than two gins this season to fill their ginning needs. If there were 12 ginning companies in Egypt, all privately owned, with an average of 3 gins each we would likely have a much more competitive situation in the ginning industry than at present, enough ginning capacity would exist, and the quality of the lint cotton would likely be improved.

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<sup>13</sup> This excludes EMEPAC, which is a quasi-private company, also called El-Bostania, or the Horticultural Services Unit, with exclusive rights to market the lint from cotton produced for seed multiplication purposes. In addition to these traders there were an unknown number of traders who bought seed cotton from growers but resold it to these 17 trading companies.

### 3. GINNING AND COTTON QUALITY

#### 3.1 Grading of Cotton

In Egypt cotton is graded both as seed cotton and as lint cotton. Grading of the seed cotton is necessary because cotton is purchased from the grower as seed cotton. Purchases of seed cotton are necessary because of the many small growers. In many countries each grower produces a large enough lot so that it can be ginned as a grower lot before it is sold. Currently in Egypt the average cotton grower produces only about 6 or 7 kentars of cotton. Most of the seed cotton in Egypt is sold at sales rings operated by a public firm or by a private trader buying directly from the grower.

The seed cotton must be evaluated to determine the proper price. At the sales rings each sack of seed cotton is given a grade, but only one ginning outturn test is made of all of the cotton delivered to a sales ring in a week.<sup>14</sup> This average test value is applied to all cotton delivered at that ring during that week. This ginning outturn test and the grade determine the price for each sack of cotton delivered. Private traders either obtain similar tests of grade and ginning outturn or rely on their experience to make a judgement of the value of the seed cotton.

CATGO officials contend that grading of seed cotton is attempting to predict the grade after ginning. This is possible because the cotton grade depends primarily upon the visual appearance of the cotton, which is affected by the amount of dirt or foreign matter, mainly plant material, and immature yellow fibers in the cotton. Hence, removal of sufficient quantities of such material will result in an improvement in the appearance and an increase in the grade. The cotton grader has accurately predicted the final lint cotton grade if he has predicted how much foreign material, immature fibers; etc. will be removed by the gin.

#### 3.2 Upgrading at the Gin

On the other hand, some gin operators claim that they can upgrade the cotton by 1/8 to 1/4 grade. According to the 1999-2000 season price tables, each 1/8 grade is worth LE 6/KT. Thus, if the grade is increased by 1/8 grade during ginning, the final product is worth LE 6/ KT more, and thus the cost to the cotton owner of ginning is only LE 12.50/Kt instead of LE 18.50/KT. But increases in grade resulting from removal of these materials will usually result in a loss of weight, which is the measure of the Kentar (50 KG.) Hence, some of the gain in value through upgrading is lost through the loss in weight, but what is lost in weight is mainly foreign matter, which has a negative value. The gain in value per kentar should be much greater than the small loss in weight.

Do all gins improve the grade of the cotton? Very little data are available on this matter. CATGO has data on file regarding the grades of both lint and seed cotton for prior years that has not been tabulated or processed. CATGO did provide at our request average grades of seed cotton and lint cotton for

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<sup>14</sup> The ginning outturn test determines how many kentars of lint cotton will be obtained from each kentar of seed cotton.

a portion of this season's crop (Table 3.1). These data, which represent about 90 percent of the 1999-2000 season crop, show average differentials between seed cotton grades and lint cotton grades of 1/16 to 3/16 of a full grade. It would be most helpful if such data were available for each gin, which could then be used to measure the quality of ginning of each gin or ginning company. With such data the bad gins could be positively identified and corrected. The industry is encouraged to collect and utilize this type of data.

**Table 3.1: Grades of Seed and Lint Cotton for a Small Portion of the Crop, 1999-2000**

Variety	No. Of Bales	Average Grade of Seed Cotton	Average Grade of Lint Cotton	Grade Difference
Giza 45	1,811	Good + 1/16	Good + 3/16	+ 1/8
Giza 70	59,936	Good + 1/8	Good + 1/4	+ 1/8
Giza 86	117,309	Good + 3/16	Good + 1/4	+ 1/16
Giza 89	133,106	Good + 3/16	Good + 1/4	+ 1/16
Giza 85	87,571	Good + 1/8	Good + 1/4	+ 1/8
Giza 80	47,487	Good + 3/16	Good + 5/16	+ 1/8
Giza 83	58,532	Good + 1/8	Good + 5/16	+ 3/16
<b>Total</b>	505,852			

Source: CATGO. Based on deliveries to the gins from 2 Oct. 1999 to 7 March 2000.

### 3.3 Ginning Versus Lint Quality

Ginning is the major process that occurs between picking in the field and spinning. It can have either positive or negative effects on the lint. Actually, ginning can have both effects at the same time. Ginning can improve the grade by the removal of trash and foreign material. *"Trash and foreign matter content is the most important factor in determining the grade of a cotton"* (16, page 409). Most of this cleaning will occur with the cleaning of the seed cotton. Ginning can also cause a reduction in quality of the lint through the production of neps or through cutting the fibers.

Almost everyone in the industry would agree that the cotton gins in Egypt have not been kept up to date over the past 30 years. This decline is partially due to public ownership and lack of competition in the industry during this period, but also due to the decline in production, which has resulted in excess ginning capacity. Dr. Mohamed E. Abdel-Salam, in his recent book, states the following in regard to the gins and cotton quality: (16, page 444).

The Egyptian gins, generally, are in a real need for modernization that should in the first place include addition of seed-cotton cleaning equipment. Rehabilitation of the gin-stands, bale pressing and baling, as well as improving technical procedures are also required. Egyptian gins simply ignore the inclusion of seed-cotton cleaners on the assumption that hand picked cotton does not require such process. Because of difficulties in handpicking, trash and foreign matter, contaminants increased and the gins are virtually unable to produce clean lint cotton.

Dr. Abdel Salam stresses two points in regard to ginning quality: equipment in the gin and technical procedures. Ginning quality depends upon the skills of the technicians operating the gins. Traders

continually mention that the grade of the lint cotton is affected by adjustments of the knives in the gin stands. Also, grade is primarily a visual characteristic and hence the cleanliness of the cotton affects the grade, and cleanliness of the cotton depends on care in removal of foreign matter and contaminants. This aspect will also be examined in this report.

Cotton grades would also very likely improve if the price differentials for grades on seed cotton were increased. Currently the price differentials are set at LE 6 per 1/8 grade difference. These small price differentials have failed to communicate to farmers the need for cleanliness in cotton production (13).

## 4. IMPROVEMENTS IN GINNING EQUIPMENT

### 4.1 Method of Study

The data gathered for this tabulation of ginning equipment were obtained through visits to individual gins and interviews of the management of all of the ginning companies. Some gins were visited because major mechanical improvements had been made at those gins in recent years. Other gins were selected to illustrate operations without improvements and to show what improvements in equipment were needed. Following is a detailed description of the improvements.

### 4.2 Mechanical Improvements

The first group of improvements deals with cleaning of the seed cotton. Cleaning of seed cotton can be accomplished in several ways: through hand cleaning, by the use of slatted tables or moving belts, through the use of mechanical beaters, or through the use of air-suction or vacuum systems. Cleaning of seed cotton can begin when the sacks of seed cotton are opened. At gins that have no cleaning at this stage, the seed cotton is dumped from the sacks directly into pneumatic air moving systems, or they lift the sacks with chain conveyors up above the blending rooms and dump the seed cotton directly into the blending rooms. Equipment coded C1, C2 and C3 deal with improvements in the seed cotton opening tables.

C1: seed cotton opening tables with fixed slats: The simplest mechanical cleaning system added at some gins are tables for opening seed cotton that are made of steel bars or wooded slats. The seed cotton is dumped out of the sacks onto these tables. The slats or bars on the opening tables are too close to allow cotton bolls to fall through but the openings allow dirt, dust, sand and small rocks to fall through and thus be separated from the seed cotton. This is not a new invention. Opening tables of this type were installed in some of the gins built in the early 1980s (See Picture 1).

C2: solid rubber conveyor belt to move seed cotton from opening tables: This system allows workers (usually women) to stand alongside the belt to remove foreign matter or contaminants from the seed cotton as it passes in front of them. The gains from such a system depend upon the number of workers used and their diligence in performing their task (See Picture 2).

C3: conveyor belt of wooden slats to move seed cotton from opening tables: This system is similar to C2 except that the moving belt is made with wooden slats so that dust, dirt, sand, etc., can fall between the slats and be separated from the seed cotton. The shaking and vibration of the slats helps to remove dirt and sand. The space between the wooden slats on these belts actually differs with the size of the cotton bolls, which differs by variety. This system also provides a place for up to three workers to stand on each side of each belt to manually remove foreign material and contaminants. This system is better than C2 because it includes the workers used in C2, but it also has the slatted tables of C1. It is superior to C1 since the cotton is being shaken and vibrated slightly to remove more dirt. This system is not new. It is very similar to

Picture 1: Seed Cotton Opening Tables Made of Steel Bars (C1) and Conveyor Belts for Seed Cotton Made with Wooden Slats (C3) at Arabia Gin at Ahnassia, Beni Suef

Picture 2: Solid Rubber Conveyor Belt (C2) to Move Seed Cotton from the Opening Table at the Misr Gin at Zagazig, Sharkia

equipment that is called "mechanical farfarra," which is used on lint cotton. As will be seen in Tables 4.1-4.4, many gins utilize C2 or C3 in combination with C1. (See Picture 1)

The laborers that stand beside these opening tables or moving belts are usually girls or young women. Their rate of pay this season was LE 5/shift. The owner of the cotton being ginned pays the cost of these workers. During a normal 8-hour shift, as much as 400-500 kentars of seed cotton can be opened. If 24 women were hired to clean the cotton at these tables, the cost would be LE 0.24 to .30 per kentar.

Codes V1 through V4 describe pneumatic, vacuum, or air suction systems. These systems not only move the cotton from one part of the gin to a later stage in the operation but also clean the cotton by removing dust and dirt. The dirt and dust are drawn out into a mechanical 'cyclone' and the cotton is dropped in the new location (See Picture 3). Some old gins still lift the seed cotton sacks unopened above the blending (*taddreba*) rooms and empty the seed cotton directly into the blending room with no provision for cleaning.

V1: pneumatic system to move seed cotton to store rooms. These systems move seed cotton from the opening tables to the storerooms and in doing so remove dirt and dust. Thus, the equipment described as V1 is used in place of or in combination with equipment coded C1, C2, or C3.

V2: pneumatic system to move seed cotton from store rooms to the gin stands. These systems move the cotton from the blending rooms (*taddreba*) (See Picture 4) to the ginning floor. In some gins the seed cotton is fed with an automatic system into the stands, and in other gins the cotton is dumped onto the floor and then manually fed into the stands.

V3: pneumatic system to move lint cotton from the gin stands to the bale press. These systems move the cotton after it is ginned from the gin stands or from a collector-conveyor belt to the bale press.

V4: pneumatic system to remove short fibers from gin stands (added to scarto). This type of equipment collects short fibers that would otherwise be lost as dust into the air. This type of equipment was reported by only one gin.

Seed cotton is placed into the hoppers above each individual gin stand either manually or with a variety of automatic systems.

M: manual feeding of gin stands. In these gins the seed cotton is manually fed into the gin stands.

A: automatic feeding of gin stands. In these gins the seed cotton is fed into the stands with an automatic system. There are a number of different ways the seed cotton can be moved and mechanically fed into the individual gin stands but these various systems were not identified. (See Picture 5)

Picture 3: Cyclone Dust Collector, Part of Pneumatic Cotton Movement System at El Nil Gin, Etay El Baroud in Behira

Picture 4: Seed Cotton Blending Room, Misr Gin at Zagazig, Sharkia

Picture 5: Gin Stands Fed Automatically (A) from Overhead Conveyor System with Mechanical Cleaning of Seed Cotton (M1) at El Arabia's Gin at Simbelaween

Picture 6: Universal Density Bale Press at Baraka Repressing Facility, El Arabia Co.

Mechanical devices (*mashbaka*) are used in some gins primarily to blend the cotton but in doing so some dirt and foreign matter is removed from the cotton. These devices contain large rollers or beaters that rotate slowly to toss the cotton into the air, fluff it up and blend it. This operation also allows moving air, and gravity, to remove foreign matter such as plant stems, pieces of the cotton bolls, pieces of the jute sacks or polypropylene strings.

B1: mechanical beaters to clean seed cotton. A mechanical beater used on seed cotton. Such devices are usually a part of automatic systems to feed the seed cotton into the stands (See Picture 5).

B2: mechanical beaters to clean lint cotton. The same type of machine as described above but is located to receive the lint cotton as it comes on a conveyor belt from the stands and just prior to pressing.

UD: Universal density bale. A bale press to produce bales with a density of approximately 500 KG per cubic meter (See Table 5.1). These presses produce bales of 480-500 lb. bales in the USA. Preparation for export also includes proper jute wrapping, labeling and inspection of the bales by CATGO. (See Pictures 6 and 7)

MP: modification of old gin presses to produce denser bales. Several gins have installed new pressure pumps on their old bale presses to increase the density of the cotton in the bale. Such bales can be exported.

RP: facilities for repressing cotton from other gins. Gins given this code meet the requirements of the MALR to permit repressing of all varieties at the gin while the gin is ginning a different variety. (See later discussion on such facilities at three gins owned by El Nil Company.) This usually includes farfarra facilities, a press to produce an exportable bale, and facilities to load the new bales into containers for export.

F: facilities for manual farfarra of lint cotton. These facilities are not technologically new. Similar facilities have been available at the Egyptian Cotton Pressing Co. for many years. These facilities consist of large rooms with a central area made of slatted wood floors to allow dirt, sand and dust to fall away from the lint cotton (See Picture 8). Sufficient space is available to allow several bales of ginned cotton to be opened and blended together. Workers pull the cotton out of the pressed bales by hand, fluff it up, and toss it into the middle of the room where other workers mix the cotton from different bales together and toss it into the air to mix it. Then the cotton is picked up and carried to the side where it usually is put through a mechanical beater (*mashbaka*) and perhaps also put through a mechanical farfarra machine (a conveyor belt made of wooden slats) before it is repressed into bales for export.

FS: facilities for manual farfarra of seed cotton. Such a system was installed by the Nefertiti Company in its gin in Minya, Shamel El Saied. This facility provides space for opening and blending of several sacks of seed cotton at the same time to permit production of a homogeneous grade prior to ginning and thus avoid the need for farfarra after ginning.

Picture 7: UD bales at Baraka Repressing Facility, El Arabia Co.

Picture 8: Farfarra in Operation at Baraka Repressing Facility, El Arabia Co.

### **4.3 Inventory of Equipment Improvements**

After these types of improvements had been identified and described, an inventory was made of the mechanical equipment located at each gin. The management at the ginning company headquarters provided these data. Particularly, we identified the specific features of each gin as it is currently equipped (Table 4.1) and identified which of these improvements had been made at each gin since private ownership of gins started in Egypt in 1996-97 (Table 4.2).

The data describing the ginning equipment, which are presented in Tables 4.1 and 4.2 are summarized in Tables 4.3 and 4.4 respectively. These summaries show the number of gins in which the various types of improvements have been made.

**Table 4.1: Inventory of Equipment at Gins, by Company, 1999-2000 Season**

Company and Gin Location	Region	No. of Stands	Variety (Giza)	Equipment Codes*
<b>El Arabia</b>				
Damanhour #1	Delta	46	89	V2,M
Damanhour #3	"	76	70	C1,C3,V1,V2,M,V3,UD
Desouk	"	40	86	C1,C3,V1,V2,M,V3,UD
Tanta	"	68	89	V1,V2,A
Miniat Samanoud	"	62	86	C1,C3,V1,V2,B1,A,V3,UD
Simbelaween	"	72	85	C1,C3,V1,V2,A,V3,UD,RP,F
Zefta	"	60	89	C1,C3,V1,V2,B1,A,V3,UD
Meet Beera	"	54	89	C1,C3,V1,V2,M,V3,UD
Ahnassia	Upper Egypt	72	80	C1,C3,V3,A,MP
Fayoum	" "	36	83	V2,M
Samalout	" "	66	80	C1,C3,V2,B1,A
Abou Tieg	" "	68	83	C1,C3,B1,M,B2
<b>Total</b>	12 gins	720		
<b>El Nil</b>				
Damanhour	Delta	60	**	V2,M,V3,B2
Etag El Baroud	"	144	70	C1,V1,V2,A,V3,B2,UD,F,RP
Kafr El Zayat	"	60	89	C1,V1,V2,A,V3,B2,UD,F,RP
Mahalla El Kobra	"	46, 34, & 66	89	C1,V1,V2,A,V3,B2,UD,F,RP
Kafr El Ghonema	"	50	89	V2,M,V3,B2
Kafr El Sheikh	"	70	86	V2,M,V3,B2
Zefta	"	60	89	C1,V1,V2,A,V3
Sohag	Upper Egypt	60	83	V2,M,V3,B2
Minya	" "	60	80	V2,A,V3,B2
<b>Total</b>	9 gins	710	---	
<b>Nefertiti</b>	1 gin	60	80	FS,V1,V2, A, B2,UD
<b>Total Private</b>	22 gins	1490		

\*More than one entry in this column indicates multiple plants at that location

\*\* Closed during the 1999-2000 season for relocation.

Equipment codes: C1 = slatted seed cotton opening tables

C2 = rubber conveyor belt to move seed cotton from opening tables

C3 = conveyor belt made of wooden slats to move seed cotton from opening tables

V1 = pneumatic system to move seed cotton to store rooms (*taadreba*)

V2 = pneumatic system to move seed cotton from store rooms to gin stands

V3 = pneumatic system to move lint cotton from gin stands to press

V4 = pneumatic system to remove short fibers from stands (added to skarto)

M = manual feeding of gin stands

A = automatic feeding of gin stands

B1 = mechanical beaters to blend and clean seed cotton (*mashbaka*)

B2 = mechanical beaters to blend and clean lint cotton (*mashbaka*)

UD = Universal density bales

MP = modifications of old presses to produce denser bales

RP = facilities for repressing cotton from other gins.

F = facilities for manual farfarra of lint cotton

FS = facilities for manual farfarra of seed cotton



**Table 4.1: Inventory of Equipment at Gins, by Company, 1999-2000 Season, Cont.**

Company and Gin location	Region	No. of Stands	Variety (Giza)	Equipment Codes*
<b>Misr</b>				
Mansoura	Delta	75&75	86	C1,C3,V2,M,B2
Mahalla El Kobra	"	78	89	C1,C3,V2,M,B2
Zagazig	"	72&72	85	C1,C2,VI,V2,B2,A,V3,V4
Fayoum	Upper Egypt	55	83	C1,C3,V2,M,B2
El Wasta	" "	60	80	C1,C3,V2,M,B2
Maghagha	" "	68	80	C1,C3,V2,M,B2
Daerot	" "	64	83	C1,C2,C3,V1,V2,B1,A,V3
Abou Tieg	" "	60	83	C1,C2,C3,V1,V2,B1,A,V3
Abou Tieg	" "	68	83	C1,C3,V2,M,B2
El Fashn	" "	46	80	C1,C3,V2,M,B2
Tameia	" "	44	83	C1,C3,V2,M,B2
Malawi	" "	60	83	C1,C3,V2,M,B2
<b>Total</b>	12 gins	897		
<b>Delta</b>				
Kafr El Dawar	Delta	68	70	C1,C3,V1,V2,A,V3,UD*,MP
Damanhour	"	46	89	C1,M,V2,B2
Desouk	"	60	86	C1,C3,V1,M,V2,B2,UD*
Kafr El Zayat	"	66&52	89	C1,M,V2,B2
Mahalla El Kobra	"	52&53	86	C1,C3,M,V2,B2
Sherbeen	"	72	86	C1,C3,V1,V2,A,V3,UD*
Mansoura	"	56	45 & 85	C1,V1,M,V2,B2,MP
Diarb Nigm	"	60	85	C1,C2,V1,V2,A,V3,MP
Menouf	"	60	89	C1,M,V1,V2,B2
Meet Yazeed	"	60	86	C1,C2,V1,V2,A,V3,MP
Beni Mazr	Upper Egypt	60	80	C1,M,V1,V2,B2
Sohag	" "	60	83	C1,M,V2,B2
<b>Total</b>	12 gins	825		
<b>El Wadi</b>				
Damanhour	"	72	70	V1,V2, M, B2
Shobrakhit	Delta	36	89	V1,V2, M, B2
Kafr El Zayat	"	72	89	C2,V1,V2, A, V3,
Tala	"	72	89	C2,V1,V2, A, V3
Meet Ghamr	"	64	85	V1,V2, M, B2
Abo El Shokok	"	60	85	V1,V2, M, B2
Minia El Komh	"	60	85	C2,V1,V2, A, B2
Toukh	"	56	85	V1,V2, M, B2
Beba	Upper Egypt	60	80	C2,V1,V2, M, B2
Minya	" "	72	80	C2,V1,V2, A, V3, B2
<b>Total</b>	10 gins	624		
<b>Total Public</b>	34 gins	2346		
<b>Grand Total</b>	56 gins	3836		

\* UD presses at Delta gins installed by Nassco Trading Co.

**Table 4.2: Equipment Improvements Made in Gins, 1996-97 to 1999-2000**

<b>Company and Gin Location</b>	<b>Region</b>	<b>Equipment Codes*</b>
<b>El Arabia</b>		
Damanour #3	Delta	C1,C3,V3,UD
Desouk	"	C1,C3,V3,UD
Miniat Samanoud	"	C1,C3,V1,V2,B1,V3,A,UD
Simbelaween	"	C1,C3,V1,V2,V3,A,UD,RP,F
Zefta	"	C1,C3,B1,UD
Meet Beera	"	C1,C3,V3,UD
Ahnassia	Upper Egypt	C1,C3,MP
Samalout	" "	C1,C3,B1
Abou Tieg	" "	C1,C3,B1,B2
<b>El Nil</b>		
Damanhour*	Delta	Moved in 1999-2000, to add UD
Etay El Baroud	"	B2,UD,F,RP
Kafr El Zayat	"	B2,UD,F,RP
Mahalla Kobra	"	B2,UD,F,RP
<b>Nefertiti</b>	Minya	New gin. FS,V1,V2,A,B2,UD
<b>Misr</b>		
Mansoura	Delta	B2, To be moved in 2000
Mahalla El Kobra	"	B2
Zagazig	"	C2,B2,V4
<b>DELTA</b>		
Kafr El Dawar	Delta	MP,UD*
Desouk	"	UD*
Sherbeen	"	C3,UD*
Mansoura	"	MP
Diarb Nigm	"	C2,MP
Meet Yazeed	"	C2,MP
<b>El Wadi</b>		
Minia El Komh	Delta	C2
Kafr El Zayat	"	C2
Tala	"	C2
Beba	Upper Egypt	C2
Minya	" "	C2,B2

\*. Closed during the 1999-2000 season for relocation.

\*\*UD presses at Delta gins installed by Nassco Trading Co.

See Table 4.1 for equipment codes.

**Table 4.3: Summary of Equipment in Gins, by Company, 1999-2000 Season**

(No. of  
gins)

Equip. Codes	Private Companies			Public Companies		
	Arabia	El Nil	Nefertiti	Misr	Delta	El Wadi
<b>C1</b>	9	4	0	12	12	0
<b>C2</b>	0	0	0	3	2	5
<b>C3</b>	9	0	0	11	4	0
<b>V1</b>	7	4	1	3	8	10
<b>V2</b>	10	5	1	12	12	10
<b>V3</b>	7	9	0	3	4	3
<b>V4</b>	0	0	0	1	0	0
<b>M</b>	6	4	0	9	8	6
<b>A</b>	6	5	1	3	4	4
<b>B1</b>	4	0	0	2	0	0
<b>B2</b>	1	8	1	10	8	8
<b>UD</b>	6	3	1	0	3*	0
<b>MP</b>	1	0	0	0	4	0
<b>RP</b>	1	3	0	0	0	0
<b>F</b>	1	3	0	0	0	0
<b>FS</b>	0	0	1	0	0	0
<b>Total gins in company</b>	12	9	1	12	12	10

See Table 4.1 for equipment codes.

\*Installed by Nassco Trading Co.

**Table 4.4: Summary of Equipment Improvements Made in Gins, 1996-97 to 1999-2000**

(No. of gins)

Equipment Codes	Private Companies			Public Companies		
	Arabia	El Nil	Nefertiti	Misr	Delta	El Wadi
<b>C1</b>	9					
<b>C2</b>				1	2	5
<b>C3</b>	9				1	
<b>V1</b>	2		1			
<b>V2</b>	2		1			
<b>V3</b>	5					
<b>V4</b>				1		
<b>M</b>						
<b>A</b>	2		1			
<b>B1</b>	4					
<b>B2</b>	1	3	1	3		1
<b>UD</b>	6	3	1		3*	
<b>MP</b>	1				4	
<b>RP</b>	1	3				
<b>F</b>	1	3				
<b>FS</b>			1			
<b>Total gins in company</b>	12	9	1	12	12	10

See Table 4.1 for equipment codes.

\* Installed by Nassco Trading Co.

## 5. GINNING IMPROVEMENTS AT EL ARABIA COMPANY

The summary presented in Table 4.4 clearly shows that since privatization, El Arabia has made many improvements in its gins, in fact many more improvements than have any of the other ginning companies. El Arabia has selected 9 of its 12 gins for major improvements. The remaining three gins, Damanhour #1, Tanta and Fayoum, are targets for closing or relocation, which we will discuss below.

El Arabia's improvements have stressed:

- cleaning of seed cotton
- preparation of the lint cotton for direct export from the gins

### 5.1 Seed Cotton Cleaning

Seed cotton cleaning has received a major emphasis. At nine of its gins, Arabia has installed both the fixed seed cotton opening tables and conveyor systems made of wooden slats which vibrate the seed cotton to remove dust and dirt and along side of which workers can stand to remove major contaminants. Pneumatic suction systems and automatic stand feeding systems, which also remove dirt and foreign material were installed at two gins. Mechanical beaters have been installed at four gins to shake the seed cotton and remove plant material and dirt.

### 5.2 Preparation for Export

Six of these nine gins are located in the Delta where export varieties are produced.

At all six of these gins Arabia has installed UD presses for the purpose of baling directly at the gin for export to avoid repressing at Alexandria, which has been the standard practice for export cotton for many years in Egypt. The philosophy of the management of El Arabia and its partner, Modern Nile Trading, is that they must compete in international markets and to do so they must control costs. A major cost that El Arabia and Modern Nile hope to eliminate is the cost of repressing.<sup>15</sup> The charge for repressing by the Egyptian Pressing Co. last season was LE 19.50/Kt.

To eliminate repressing, UD presses were installed at six gins in the Delta within the past three years. Cotton destined for export that is ginned at these six gins is now pressed into smaller and denser bales than the traditional bales at gins in Egypt. Table 4.1 gives detailed descriptions of many presses in Egypt. The newly installed universal density (UD) presses produce bales that are equal in weight to the typical bale produced in the USA of 480 to 500 lb. But note the differences in density. The UD bales have a density of about 500 Kg. per cubic meter compared with 200-250 Kg. per cubic meter with the old style hydraulic presses at the gins, but less than the new press at the Egyptian Pressing Co.

The need for a denser bale is simply a matter of shipping cost. The typical bale produced by the old hydraulic gin presses is too expensive to ship. The UD bale puts twice as much cotton, by weight, in

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<sup>15</sup> For several viewpoints on farfara and repressing see Issue No. 113, October 1999, of *The Egyptian Cotton Gazette*, pages 17-40.

the same container as would be possible with the old gin presses. Hence, the old gin bales had to be repressed for export in Alexandria at an additional cost of LE 19.50/Kt. The purpose of the UD bale presses at the gins is simply to avoid the repressing cost.

El Arabia Co. has modified the sizes of the bales produced by their UD presses to fit the dimensions of export shipping containers and maximize the quantity of cotton that can be shipped per container (see Section 5.3). El Arabia has also modified the old press at its gin at Ahnassia in Beni Suef so that it can produce an exportable bale. Delta Ginning Co. has made similar modifications on four of its old gin presses.

**Table 5.1: Characteristics of Some Selected Bale Presses in use in Egypt**

<b>Location of Press</b>	<b>Bale Dimensions (cms.)</b>	<b>Weight (kgs)</b>	<b>Density (kg/cubic M)</b>
<b>New UD bale presses</b>			
Sherbin gin, Delta Co.	137 x 70 x 50	240	500
Etay El Baroud gin, Nile Co	137 x 67 x 51	230	491
Kafr El Zayat gin, Nile Co.	137 x 67 x 51	230	491
Mehala Kobra gin, Nile Co.	137 x 67 x 51	230	491
Samnoud gin, Arabia Co.	137 x 76 x 55	300	553
Simbelawin gin, Arabia Co.	137 x 72 x 55	300	553
Baraka gin, Arabia Co.	135 x 72 x 55	270	505
Damanhour gin, Arabia Co.	140 x 83 x 55	300	469
Shamal El Saied, Nefertiti Co.	????????	??	??
<b>Egyptian Pressing Co.</b>			
Alexandria, Nile Press	130 x 80 x 60	325	520
Al-Farikh Press	130 x 75 x 53	325	628
<b>Mehala Spinning Co. *</b>			
Ghazel El Mehahha	115 x 80 x 73	350	520
<b>Hydraulic presses at gins</b>			
Al Maiya	160 x 150 x 90	450	208
Al Motawara	140 x 130 x 70	325	255

Source: Personal communication with Nabil El Sentricy.

\*Four presses.

A further step in the direction of cost cutting for cotton export purposes was the development of repressing facilities at the gins. This type of operation does not eliminate repressing but does the repressing at a lower price. As stated above, the Egyptian Pressing Co. in Alexandria was charging LE 19.50/Kt for repressing. The two major private ginning companies, El Arabia and El Nil, have begun to offer repressing services for rates of LE 8 to 11/Kt.

To provide a repressing service at a gin required assurances to the MALR that any repressed cotton would not become mixed with the cotton being ginned at that location. To meet the MALR

requirements the management of the gin had to establish an enclosed receiving and storage area with a separate entrance from the gin entrance. Four gins now meet these criteria: three operated by El Nil Company and one by El Arabia Company. These facilities have all been constructed within the past two years.

The Arabia gin at Simbelaween and three gins operated by El Nil (at Etay El Baroud, Kafr El Zayat and at Mahalla El Kobra) meet these criteria. These gins also have been equipped with UD presses and with farfarra facilities to permit the cotton owner to perform farfarra on his cotton if he so desires and at his own cost and under his own supervision. These facilities are somewhat comparable with the facilities at Baraka but the Baraka, facilities offer more options.

### **5.3 The Baraka Repressing Facility**

We reported earlier that the Baraka gin was constructed by the Egypt Cotton Trading Company but only operated as a gin for two short seasons, 1995-96 and 1996-97. During the 1996-97 season permission was obtained from the MALR to use this facility as an export staging facility. Permission was granted to handle all varieties of cotton as long as the gin is not operated. The value of this facility was in the UD press and the farfarra facilities and its location on the Cairo-Alexandria Desert road relatively close to the port of Alexandria. The Modern Nile Company bought this facility and began to use it during the 1997-98 season.

When Modern Nile acquired the Baraka Gin, it consisted of 33 feddans of land, one UD bale press, two farfarra rooms, and sufficient covered outdoor storage for 6,000 bales. The two original farfarra rooms are both served by the UD press. Farfarra room No. 1 is designed for hand farfarra with a mechanical beater placed between the farfarra room and the UD bale press to blend and clean the cotton.

Room No. 2 is equipped for mechanical farfarra, with moving slatted wooden conveyor belts to move the cotton from the bales that are being opened to a mechanical beater. Space is available to permit workers to stand beside these conveyor belts so that they can remove any type of foreign material as it passes them. This room is set up with 4 wooden belts leading to one belt, which in turn leads to the mechanical beater. The capacity of UD press No. 1 equals the capacity of only one farfarra room, which means that only one of the two farfarra rooms can be used at the same time.

In January 1999 a second UD bale press and a third farfarra room were added at Baraka (See Picture 8). The first press serves two farfarra rooms (No.1 and 2), and the second press serves the third farfarra room. Farfarra room No. 3 is equipped for hand farfarra in the same style as room No.1.

The two hand farfarra rooms (No.1 and 3) have a floor of wooden slats so that dust can fall through. This floor is 400 sq. meters (20 x 20). This room has sufficient space around the central wooden slatted floor to accommodate the blending of 16 bales of cotton at one time). Forklifts are available to move the incoming bales around inside the farfarra room.

In all three farfarra rooms the cotton is moved from the floor of the farfarra room to a mechanical beater (See Picture 9) to improve uniformity of the cotton and to remove dirt. Next the cotton is sent to the bale presses through a vacuum system, which also removes dust from the cotton.

The two bale presses operate independently so that both can be working at the same time, and often are. The pressing crews could handle 80-100 bales per press per 8-hr. shift. The rate of pressing is coordinated with the rate of output of the farfarra rooms.

The two UD presses are similar. These presses are called UD presses, but the pressing boxes have been enlarged to hold 5.5 Kt of lint cotton, which is 275 kg. or about 600 lb. The regular UD bales are slightly smaller and weigh 480-500 lb. These presses can still be called UD bales because they have the same density as the UD bales (See Table 5.1 for bale characteristics). This alteration in bale size was made to permit shipping the maximum amount of cotton per container. They can load a full size container with 89 of these bales, giving 489.5 Kt. or 24,475 kg. Hence the capacity of each press is basically one shipping container per 8-hr. shift. Facilities, including CATGO cotton inspectors, are available to load containers at Baraka.

All of the cotton going through this facility is intended for export. They are now in their third season of operation as strictly a farfarra-repressing facility. The design of the facility gives the client maximum flexibility in farfarra and repressing. The client has the following choices:

1. Perform no farfarra or cleaning but simply open the gin bales directly into the pneumatic systems to move the cotton to the presses,
2. Run the cotton through the mechanical beaters and then to the pneumatic systems and to the presses,
3. Open the bales in the mechanical farfarra room and run the cotton over the wooden-slatted belts to shake out dirt and then to the beaters and the presses,
4. Same as No. 3 but have workers standing by the wooden belts to remove foreign matter,
5. Use the mechanical farfarra room to blend cotton from 2-4 locations or cotton of 2-4 grades and then clean the cotton as in No. 3 or No. 4.
6. Use one of the hand farfarra rooms to blend 2-16 bales together at the same time and use as much hand labor as desired for cleaning and then use the wooden-slatted belts, and or the mechanical beaters if desired and then bale.

The client pays Baraka for the repressing, but the farfarra facilities are made available for him to choose as he wishes, at his own cost for supervision and labor with any of the options listed above. This makes it possible to prepare any type of cotton for export. *The client is in complete control of the preparation of his cotton.*

Picture 9: Mechanical Farfarra Moving Lint Cotton from Farfarra Room to Bale Press, Baraka Repressing Facility, El Arabia Co.

Picture 10: Attachment to Gin Stands at Etay El Baroud Gin, El Nil Co, Behira to Remove Foreign Material Invented by Gin Carpenter Fayez Atalla

The repressing capacity at Baraka is 80-100 bales per shift per press. These presses can operate year-round if necessary. Assuming one shift/day and 240 days/year (48 weeks) each press could press 20,500 bales/shift /season or 112,750 Kt. annually. With two presses working 2 shifts/day the output would be 82,000 bales/season or 450,000 Kt. However, exports are very seasonal. Exporters do not want to wait to get their cotton shipped. They want to ship as soon as the buyer requests shipment, so that they can receive payment. Thus, the practical output/season/press is perhaps about 20,000 bales or 110,000 Kt.

During the 1997-98 season this facility pressed 5,978 bales, or about 33,000 Kt. During 1998-99, the output was 27,864 bales or about 153,000 Kt. Total Egyptian exports for the 1998-99 season were 2.17 million Kt. Hence this facility handled 7 percent of all exports. In 1998-99, the Baraka facility pressed about 10,800 bales for the 6 public companies (about 39 %), 500 bales for Tanta Co. (1.8 %), and the balance (16,565 bales or 59.4 %) for Modern Nile.

Charges for repressing at Baraka are about LE 10-11/Kt. This fee includes the use of the mechanical cleaners and farfarra rooms. The labor for the farfarra is provided by a contractor and is paid for directly by the client. The client also pays for the jute covers (LE 8/bale). Baraka furnishes the wire ties for tying the bales.

There are only 17 permanent employees at Baraka. Five are office workers and 12 in the plant. There are 27 workers and 5 guards who are seasonal. The seasonal workers are mostly drivers to load and unload bales, move bales and also some mechanics and electricians. There also are contract workers who do the farfarra and put in the bale wire ties. The client pays all costs of the contract labor. The number of workers here reported represents only one shift. These workers occasionally work a second shift when needed. Additional workers would be needed if the presses were operating a second shift on a regular basis.

#### **5.4 New Gin Stands**

In May 2000 El Arabia gin informed the authors that they were proceeding with major improvements at three of their gins. They had received a gin stand from India that they had tested and found satisfactory. Hence El Arabia is proceeding to use new gin stands imported from India in three gins. These gin stands are still the McCarthy roller gin, but each stand has a capacity equal to about 160 percent of the current gin stands in Egypt.

The El Arabia gins at Fayoum and in Kafr El Sheikh will be completely relocated and 44 of the new Indian stands will be placed in each of these two new gins. The gin in Fayoum will be located on desert land outside the agricultural area of Fayoum. Also, El Arabia's old Damanhour gin will be fitted with 36 of these new gin stands. These are major improvements in ginning capacity and the first in many years in Egypt.

#### **5.5 El Arabia's Quality Control Department**

As stated earlier ginning, improvements in ginning result from improvements in ginning equipment but also through the improved skill in the use of any ginning equipment, whether new or old. During this past season El Arabia Co. established a quality control sector to review ginning operations at each of its gins. A quality control inspector is stationed at each gin, with the director of the department at the headquarters. To qualify as an inspector in this department, an applicant must be a graduate of either the training schools at the Cotton Grading Institution in Alexandria (operated by CATGO) or by a similar training school operated by the Cotton Research Institute in MALR.

The inspector's responsibilities at the gin begin with cotton receiving. He must supervise this operation to guarantee that the seed cotton is sorted properly according to the grade and put in the appropriate stockpiles by grade. The inspector is responsible for supervision of cleaning of the seed cotton. Special care must be taken to try to remove all sisal, polypropylene, and other contaminants. Quality control inspectors also supervise the ginning stands and can stop any gin stand to have it repaired if it is not functioning properly. In general, they have the authority to correct any operation or any employee who is not performing his task properly.

The gin management is satisfied at this point with these operations. It is difficult to quantify the benefits of this group of inspectors, but management plans to continue with this program.

## **5.6 Training School for Gin Carpenters**

El Arabia Company, in cooperation with Modern Nile Trading Company and Unirab Spinning and Weaving Company, is planning to initiate a training school for gin carpenters<sup>16</sup> beginning with the 2000-01 season. They plan to conduct the class for 30-40 students, which will include both young men with no previous experience and some junior technicians in the gins. They will try to hire a retired carpenter with a good reputation as an advisor or instructor for the course. A textbook, "Cotton Ginning Technology " by Dr. Mahed M. Mohamed Yousef, Head of the Cotton Ginning Institute at ARC, has been selected for the course.

Amin Abaza, Chairman of Modern Nile reported in January 2000 that they are very serious about proceeding with this training course, but they would like all of the ginning companies to join in this effort. He feels that this training is needed throughout the industry, not just at El Arabia. But if the other companies do not join in, El Arabia plans to proceed with this course on its own.

## **5.7 Ginning Experience**

The management of Modern Nile and El Arabia recently reported that the 1999-2000 season was an excellent learning experience for the company management. Actually the management of this company just entered its fourth year of operation but it has been less than that since the gins have all been operating with all of the new improvements. One major improvement made this season was in

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<sup>16</sup> The chief technician on the ginning floor has the title of "carpenter". The Unirab Spinning and Weaving Company owns 10 % of El Arabia and the owners of Modern Nile and El Arabia are part owners of Unirab S & W.

developing techniques to manage the receiving, storing, opening and blending of seed cotton. This is mostly a logistics and management problem, but a very important one. El Arabia depends on blending of the proper grades of seed cotton to produce the type of cotton wanted for export with the goal of avoiding farfara of the lint cotton. The experience thus gained will improve lint quality in the future.

## **5.8 Feedback From Trader to Gin**

The management of Modern Nile and El Arabia also pointed out that joint management of these two companies allows important feedback from the trading portion of their business to the ginning portion. They now have data that tells them the grades of lint cotton coming from each gin. They can thus trace lots of cotton from the export lot back to the source of the seed cotton and the original grade. This information has become a valuable tool to pinpoint problems at any gin and correct any ginning problems.

In normal ginning operations, the owner of the cotton knows the grades of the seed cotton being ginned and will know the grades of the lint after ginning. But the gin manager is usually not given access to this information. Thus, the gin manager is not fully aware of the quality of the product from his gin. The cotton owner may be reluctant to share this information with the ginning company. However, when the cotton owner and the gin owner are one and the same, this information is available to use by the ginning company for gin management to improve the quality of ginning.

## 6. IMPROVEMENTS AT EL NIL COMPANY

Since privatization in July 1997 the El Nil Company has made major improvements at three of their gins; those located at Etay El Baroud, Kafr El Zayat and at Mahalla El Kobra. These gins have been equipped with new UD bale presses and with farfarra facilities for preparation of lint cotton for export. At these gins the old bale presses have also been retained for use for pressing lint cotton destined for the domestic spinning mills.

The new UD bale press at the gin at Etay El Baroud was used after the closing of the 1998-99 ginning season (April through August, 1999) to repress 8,000 bales for export that had been ginned at other gins. This included varieties G-89, G-70, G-75, G-86 and G-77, which was owned by one private trading company and five public companies. In November 1999 the Nile gin at Etay El Baroud was approved by the MALR to permit repressing of all varieties of cotton for export with the UD press while at the same time the gin was ginning variety G-70. The G-70 being ginned would have to be pressed with the old press.

To obtain this certification from the MALR required the construction of a separate fenced entrance to the ginning yard to guarantee that no lint cotton brought to the gin to be repressed could be mixed with the cotton being ginned. This type of operation will soon be established also at the Kafr El Zayat and Mahalla El Kobra gins.

Customers of these services have a wide variety of options to choose from as was discussed above regarding the Baraka Gin. Both mechanical and hand farfarra can be performed at these facilities. Such activities are the responsibility of the cotton owner and under his supervision and at his cost, but the facilities are available for his use if he so desires. The cotton owner can also directly load containers for export at these facilities.

A carpenter at the Etay El Baroud gin developed a mechanical device that has been attached to all of the gin stands at that gin that removed plant material such as leaves, stems, and broken seeds from the seed cotton. With this mechanical device the undesirable plant material is separated from the seed cotton and gathered into a canvas bag attached to each stand (See Picture 10).

El Nil has suffered some setbacks recently with the illness and death of their general manager. We anticipate that El Nil Company will soon be working to regain its market share.

## 7. GIN CLOSURES AND GINNING CAPACITY

### 7.1 Recent Gin Closures

This tabulation of gin closings takes as a starting point the list of gins reported in 1992 (1, page 50). That listing consisted of 64 gins and 4,294 stands. However, it appears that one gin was omitted from that list so the correct total for that date should be 65 gins and 4,362 stands. Some other minor discrepancies were found between those estimates and the current reported numbers of stands, so that our starting point in 1992 was 4,367 stands.<sup>17</sup>

We found no reports of any gins being closed between 1992 and the start of privatization in 1994. The first change in total number of gin stands was the addition of the 12 stands by Egypt Company at the Baraka gin in 1995-96. As reported elsewhere, this gin was closed after 2 years.

As the leased gins were returned to their owners in 1995-96 and later years, some of these gins were not put back into operation. For example, a gin at Shebin El Komh with 50 stands was in El Arabia Company when it was a public company, but this gin was not included in the sale of El Arabia to private owners (Table 7.1). This gin has been dismantled, and the land is for sale. This gin was last used in 1995.

**Table 7.1: Gins Closed Since 1995-96**

<b>Ginning Company</b>	<b>Location of Gin</b>	<b>No. of Stands</b>	<b>Season When Closed</b>
<b>El Arabia</b>	Sherbin El Komh	50	1995-96
	Benha	62	1997-98
	Mansoura	48	1997-98
<b>Delta</b>	Kanater	60	1995-96
	Malawi	63	1999-00
	Tahta	60	1999-00
<b>Misr</b>	Benha	65	1999-00
	Zefta	54	1999-00
	Abo Kabeer	47	1999-00
<b>El Wadi</b>	Balina	52	1999-00
<b>Total</b>		561	

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<sup>17</sup> The number of gins varies between reports due to the differing way in which the multiple unit gins were reported. Some authors list these multiple units as one gin while others list these as 2 or 3 gins. This same problem exists with the data presented in Tables 4.1 and 7.1.

Also, Delta Co. had a gin at Kanater, in Qalubiya, which was leased by Modern Nile for two years, 1994-95 and 1995-96, but after the lease was terminated, this gin was closed in 1996. The land on which this gin stood is for sale.

After privatization of El Arabia, the new management closed the gin at Benha before the start of the 1997-78 season and the gin at Mansoura during the 1997-98 season. Sixty stands from these two gins were sold to the Nefertiti Cotton Trading Co., which installed these in their gin in Minya at Shamal El Saied.

The three holding companies closed six gins before the start of the 1999-2000 season. This included three of the Misr gins, two Delta gins and one from El Wadi (Table 7.1). The machinery was removed from these gins and sold as salvage or retained as spare parts, and the gins were closed permanently. The land was returned to the holding company for sale. The small crop forecast for 1999 may well have prompted this decision, although there has been excess capacity in ginning for some time.

Thus, in summary, two gins with 110 stands were closed in 1995-96, an additional two gins with 110 stands were closed during 1997-98, and six more gins with 341 stands in 1999-2000, for a total of ten gins and 561 stands. With the addition of the Nefertiti gin in Minya with 60 stands the current inventory is 56 gins and 3,866 stands.<sup>18</sup>

A gin at Damanhour owned by El Nil with 60 stands was closed temporarily during the 1999-2000 season, but they expect it to reopen for the 2000-2001 season, after being relocated. With the temporary closure of El Nil's gin at Damanhour, the number of operating gins in the 1999-2000 season was 55 with an estimate of 3,781 stands.

## **7.2 Ginning Capacity**

This reduction in gins will not likely have any negative results in the future because of the large excess capacity that existed prior to these closings. Sufficient ginning capacity still exists within Egypt. The trade still regards the present situation as one of excess ginning capacity and further reductions are felt to be in order.

As reported earlier, those companies that were considering the purchase of Delta Company were planning to close some of the Delta gins. The El Arabia Co. is also considering the closing, sale, or relocation of three of their gins, those at Fayoum, Tanta and one at Daqahliya.

Twelve of the largest private sector cotton traders were interviewed early in the year 2000 regarding their opinions and plans in regard to gin ownership and ginning investments. The majority of the traders

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<sup>18</sup> The accounting of stands through gin closings does not agree with the current inventory. Beginning with 4,367 stands in 1992 minus 561 stands in gins that were closed equals 3,806 stands plus 60 stands in new gin of Nefertiti equals 3,866 stands. But only 3,836 stands are in the current inventory as shown in Table 4.1. This discrepancy of 30 stands can be attributed either to removal of stands not working in some gins without replacement, or differences in counting of extra stands used for handling scarto, or to errors.

interviewed indicated that they felt that new investments in ginning were necessary from the standpoint of cotton quality in Egypt. However, many of these traders consider investments in ginning at this point in time to be unwise due to the current excess capacity now in existence in the country. The current excess capacity is holding down the ginning charges and thus the profitability of ginning operations.

Table 7.2 presents data on the total number of ginning stands and lint production in Egypt for several past decades, and for each year since 1992, and the average kentars of lint cotton ginned each year per stand. These data show that the long term average output per stand has been about 1,600 kentars of lint/stand, with output per stand exceeding this average in years of large production, such as in 1993, and below this when production drops, such as in 1994 and 1995. Cotton production has also been low the past two years, so output per stand has dropped well below this average of 1,600 kentars per stand.

**Table 7.2: Lint Cotton Production in Comparison to the Number of Gin Stands**

<b>Decade or Year</b>	<b>Average Production (000 lint kentars)</b>	<b>No. of Gin Stands*</b>	<b>Kentar/Stand</b>
<b>1960s</b>	9,275	6,000	1,546
<b>1970s</b>	9,162	6,000	1,527
<b>1980s</b>	8,151	5,000	1,630
<b>1990</b>	5,919	4,500	1,315
<b>1992</b>	7,147	4,367	1,637
<b>1993</b>	8,314	4,367	1,904
<b>1994</b>	5,095	4,367	1,167
<b>1995</b>	4,831	4,244	1,138
<b>1996</b>	6,914	4,244	1,629
<b>1997</b>	6,725	4,122	1,631
<b>1998</b>	4,594	4,122	1,115
<b>1999</b>	4,851	3,781	1283

\*No. of stands in 1970s through 1990's are projected trends.

Assuming operation of the gins for 2 shifts/day and a ginning season of 165 days (15 October to 31 March) and a rate of ginning of 0.9 lint kentars/stand, each gin stand is easily capable of ginning 2,300 lint Kt. per season. With an average yield of 7 kentars of lint/ feddan only one stand is needed for each 325 feddans of cotton. Based on this method of estimating capacity, the number of stands needed for the 1999-2000 season was only 1,985, indicating a current overall excess capacity of 93 percent.<sup>19</sup>

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<sup>19</sup> Completion of ginning by 31 March each season is compulsory so that all seed is heat treated by that date. Heat treatment of the seed is necessary to control of the pink bollworm. Gin operators have traditionally based capacity estimates on the assumption of three shifts instead of only two. At the start of the 1998-99 season the Minister of Agriculture ordered gins to restrict operations to two shifts in an attempt to improve the quality of the lint cotton. Gins have generally followed these orders but the excess capacity situation is such that there really is no need for 3 shifts at any gin.

Using 2,300 lint Kt./stand as a capacity standard, the past average output of 1,600 indicates that capacity has been underutilized by about 44 percent for a long period of time. Obviously, determination of the reasonable number of stands for the future depends upon the production expectations in the future. With an expected long-term output of 7 million lint kentars (one million feddans with an average yield of 7 Kt.) only about 3,050 stands would be needed.

Tables 7.3 and 7.4 show the current area of cotton per stand by governorate and by variety respectively. These calculations show that gins are not distributed uniformly throughout the country in accordance with the area of cotton grown. Upper Egypt shows the greatest excess capacity. Upper Egypt has 1,200 stands, but it needed only about 325 this past season, implying an excess capacity of 270 percent. The Delta has 2,577 stands but needed only about 1,660 stands for an average excess capacity of 55 percent.

These data show that the governorate of Gharbiya has an extremely low ratio of cotton production to ginning capacity. However, analysis of these data is best not confined to governorate boundaries. Seed cotton does move across governorate boundaries. In the 1999-2000 season, Giza 89 was grown in Gharbiya, Menofiya and Behira; hence some gins in Gharbiya were used to gin cotton produced in these other governorates.

These estimates of excess capacity must, however, be viewed with caution since the area planted to cotton was very low in 1999. Nevertheless, these estimates still indicate which areas of the country have the major excess capacity problems.

**Table 7.3: Number of Gins and Stands in Operation in 1999-2000 Season by Governorate Compared with the Area Planted**

Governorate	Planted area (1999) (FD)	No. of Gins	No. of Stands	Feddans Per Stand
Alexandria & Behira	153,917	7	488	315
Kafr El Sheikh	114,494	3	170	673
Gharbiya	51,010	9	767	67
Dakahlia & Damietta	112,157	6	476	236
Sharkia & Ismalia	73,149	5	384	190
Qalubiya	8,000	1	56	143
Menoufiya	26,846	4	236	114
Delta	539,573	35	2,577	209
Fayoum	18,185	3	135	135
Beni Suef	23,810	4	238	100
Minya	32,741	7	446	73
Assuit	25,601	4	260	98
Sohag & Qena	5,206	2	120	43
Upper Egypt	105,543	20	1,199	88
New Val.& Giza	301			---
<b>Total</b>	<b>645,417</b>	<b>55</b>	<b>3,776</b>	<b>171</b>

**Table 7.4: Number of Gins and Stands in Operation in 1999-2000 Season by Variety Compared with the Area Planted**

Variety	Feddans Planted	No. of Gins	No. of Stands	Feddans per Stand
Giza 45	6,141	1/2*	28	219
Giza 70	72,811	4	360	202
Giza 88	1,266	**	---	---
Giza 86	170,553	7	619	275
Giza 89	158,329	15	1,026	154
Giza 85	130,405	8 1/2*	544	240
Giza 80	49,091	10	624	151
Giza 83	56,732	10	575	99
<b>Total</b>	<b>645,417</b>	<b>55</b>	<b>3,776</b>	<b>171</b>

\* One gin was used to gin both G-45 and Giza-85.

\*\* Ginned at MALR research gin.

Tables 7.5 and 7.6 provide data on the amount of cotton ginned at each of the El Arabia gins for several years and the lint kentars ginned per stand at each of these gins. Most of the variation in output

per gin and per stand between years is due to differences in the size of the cotton crop. The area planted to cotton has been decreasing since 1996, but despite this downward trend in production, the company management has been able to maintain a good output per gin and per stand. These data show the gins with low output that are likely candidates for closing.

### **7.3 Future Gin Closures**

Current ginning capacity is still in excess, and hence more gins will likely be closed in the future. Selection of which gins to close should be based on three major variables: the condition of the gin, its location relative to the quantity of cotton produced in that area, and the location of the gin relative to residential areas. The condition of equipment at each gin was discussed in Chapter 4. The location of the gin relative to cotton production was described in Table 7.3 and 7.4. Data were not collected on gin locations relative to residential areas, but this information is well known to those making such decisions. The dust and noise pollution caused by gins has become an important factor. Many of the remaining gins are now located in residential areas. They were probably not built inside of residential areas, but the areas around the gins became residential over time. Gin owners and managers are now facing a serious problem in this regard.

In some cases the gin owners prefer to relocate a gin rather than permanently closing it. On the one hand local authorities are pressuring gin management to reduce pollution, but the MALR is reluctant to grant companies permission to use agricultural land for gins. An alternative choice would be location on desert land, but desert land is not near most cotton producing areas. Location of all gins in desert lands would substantially increase transport costs. As mentioned earlier, El Arabia will be proceeding during the summer of 2000 with the relocation of their gin from the middle of the city of Fayoum onto desert land. This is feasible in Fayoum since desert land surrounds the agricultural lands.

**Table 7.5: Lint Kentars Ginned by each Gin, 1993-94 to 1999-2000, El Arabia Co.**  
(‘000 lint kentars)

<b>Gin Location</b>	<b>No of Stands</b>	<b>1993-94</b>	<b>1995-96</b>	<b>1996-97</b>	<b>1997-98</b>	<b>1998-99</b>	<b>1999-00</b>
Damanhour #1	46	NA	NA	NA	65	63.7	74.7
Damanhour #3	76	251.7	79	162.2	144.6	82	111.5
Desouk	40	104.1	77.4	0	69.5	31.3	87.2
Tanta	68	66.9	14.8	82.3	88.6	30.9	45.1
Miniat Samanoud	62	173.3	76	0	81.3	107.7	105.5
Simbalween	72	144.6	37.4	18.2	144.7	96.3	122.6
Zefta	60	87.8	38.2	54.2	106.5	83.4	70.6
Meet Beera	54	57.5	30.9	59.3	74.7	59.3	50.1
Fayoum	36	111.8	28.1	5.6	78.9	66.2	34.9
Ahnassia	72	267.4	95.6	169.1	154.3	115.3	70
Samalout	66	143.3	88.8	64.4	101.2	81.3	50.3
Abou Tieg	68	70.8	116.6	164.7	116.2	105.5	69.1
<b>Total</b>	<b>720</b>	<b>1479.2</b>	<b>682.8</b>	<b>780</b>	<b>1160.5</b>	<b>859.2</b>	<b>816.9</b>

Sources: CATGO for 1993-97. El Arabia for 1997-2000. CATGO did not have provide separate estimates for the two gins at Damanhour for 1993-94 to 1996-97.

**Table 7.6: Lint Kentars Ginned per Stand, 1993-94 to 1999-2000, El Arabia Co.**

<b>Gin Location</b>	<b>No. of Stands</b>	<b>1993-94</b>	<b>1995-96</b>	<b>1996-97</b>	<b>1997-98</b>	<b>1998-99</b>	<b>1999-00</b>
<b>Damanhour #1</b>	46	2063	648	1330	1413	1385	1624
<b>Damanhour #3</b>	76	2063	648	1330	1903	1079	1467
<b>Desouk</b>	40	2603	1935	0	1738	783	2180
<b>Tanta</b>	68	984	218	1210	1303	454	663
<b>Miniat Samanoud</b>	62	2795	1226	0	1311	1737	1702
<b>Simbalween</b>	72	2008	519	253	2010	1338	1703
<b>Zefta</b>	60	1463	637	903	1775	1390	1177
<b>Meet Beera</b>	54	1065	572	1098	1383	1098	928
<b>Fayoum</b>	36	3106	781	156	2192	1839	969
<b>Ahnassia</b>	72	3714	1328	2349	2143	1601	972
<b>Samalout</b>	66	2171	1345	976	1533	1232	762
<b>Abou Tieg</b>	68	1041	1715	2422	1709	1551	1016
<b>Total</b>	<b>720</b>	<b>2054</b>	<b>948</b>	<b>1083</b>	<b>1612</b>	<b>1193</b>	<b>1135</b>

## **8. EMPLOYMENT AT THE GINS**

### **8.1 Classification of Gin Employees**

Gin company employees are generally classified into three categories: permanent employees, seasonal employees, and contract employees. Permanent employees are those who are employed the entire year and have permanent government or company benefits. Seasonal workers are employed only when the gin is operating. These people are hired as individual employees. Contract employees are also seasonal workers but are those who are actually hired by a person who has a contract to furnish certain services to the gins. The gin manager may not know how many contract employees actually work in his gin, since the contractor is often paid on the basis of the output of the gin, such as LE 0.50/ kantar. The contractor hires the required number of people needed to do these jobs. Most of the gins we visited had contract employees, but few of the managers knew exactly the number of these workers.

Permanent employees include the office administrative and service staff such as secretaries, janitors, etc., mill operators and major technical staff such as the mechanics, carpenters, and engineers. They have the job of permanent maintenance. A major task of these workers during the off-season is putting new leather on all of the rollers of the gin stands. Actually, two sets of rollers are usually on hand for each stand as one set of rollers does not last a full ginning season. The gin stands also need complete overhaul each season to repair bushings, bearings, and belts. Most of these gin stands are older than the workers in the gins.

Seasonal workers do tasks such as tractor driving, bale hauling and loading, and are the security guard but some additional electricians and mechanics are also hired at some gins as seasonal workers for repair work.

Contract workers do tasks such as loading and unloading sacks of cotton and cotton seed, opening seed cotton sacks, moving cotton in the blending rooms to the pneumatic suction systems, feeding the gin stands, working in the pressing rooms, and moving the bales out of the pressing room. Contract workers perform the least skilled physical tasks.

### **8.2 Excess Employment**

Excess employment is somewhat a matter of judgement. Managers differ in their attitude regarding labor and what they expect from a worker. Some managers want a minimum of workers on hand to give the least cost. Other managers want some extra labor on hand to make sure they can handle any extra workload. Thus, definitions of excess labor differ.

The use of three categories of workers in gins described above allows management to shift some tasks between permanent workers and seasonal workers; thus excess labor problems are not as prevalent in the ginning companies as in the cotton trading or spinning companies. For instance, the Misr gin in Sharkia has two units of 72 stands each, but only one unit was used this season. The gin has 150

permanent employees but this season the permanent employees were used to fill all of the seasonal tasks and no seasonal workers were hired.

Interviews were conducted with managers of nine individual gins (Table 8.1). The gin managers generally argued that there is no excess labor at the gins, only at the headquarters. But many of these same managers also said they were not replacing any workers that retired or left. This policy appears to indicate an excess supply situation.

Also, there is some vested interest here. Gin managers are not primarily concerned with costs, their concern is on service and production. The responsibility for costs is mainly at the headquarters. Also, the individual managers do not look at output per worker. They only are concerned about whether all of the job slots are filled. The managers did not seem to be concerned about a short ginning season or low output per worker.

**Table 8.1: Summary of Labor Data Obtained from Nine Gins**

<b>Company and Location</b>	<b>No. Of Stands</b>	<b>No. Of Perm. Workers</b>	<b>No. Of Season. Workers</b>	<b>Notes on Labor</b>
<b>Arabia: Ahnassia</b>	72	No data		
<b>Arabia: Miniat Samanoud</b>	62	67	30	Some employees transferred here from Mansoura but many took early retirement, No excess but not replacing any workers.
<b>Arabia: Simbalaween</b>	72	67	33	No excess. Won't permit any early retirements.
<b>Arabia: Fayoum</b>	36	33	34	Had 66 perm. employ. in 1989
<b>El-Nile: Etay El Baroud</b>	144	140	40	No excess, but haven't hired any new perm. employees in 10 years.
<b>Misr: Zagazig</b>	144 (72 in 99-00)	150	None	Some employees of other Misr gins brought here.
<b>Misr: Fayoum</b>	55	70	50	No excess, replace all that retire.
<b>Delta: Diarb Nigm</b>	60	54	10-12	No excess but not replacing any who leave.
<b>El-Wadi: Kafr El Zayat</b>	72	70	20	No excess, some shortages in some technical categories but not generally hiring.

It appears that it is standard employment policy to have about one permanent worker per stand at the gins. However, one private trader, who is a retired gin manager, told us that prior to nationalization there were only about 30 permanent workers in each standard gin of about 60-72 stands.

Other information on employment at the gins was obtained from interviews of the management of four of the ginning companies. The management of El Nil Co. report that they have no excess labor at the gins. When the company was privatized, they retired 54 permanent workers at the headquarters office. They said this was possible since "this company was no longer a government office so we had much less paper work to do". Thus, 54 workers were declared redundant and were given early retirement, but the company has retired no workers at the gins. They have 800 to 900 permanent workers and 1400 total workers counting the seasonal workers.

El Wadi Co. replaces very few workers that leave. The company does replace critical technical workers like carpenters and cotton graders and some management people, and they have rehired some key retired workers. This policy is followed to keep down costs, but they say they do not have excess labor. The company has not used the Government's early retirement program. El Wadi has about 800 permanent workers and 800 seasonal workers, plus contract labor.

Misir has used the holding company's early retirement program and added bonuses of LE 4,000-5,000 to encourage retirement. The three gins, which were closed this season, had 250 permanent employees, of whom 205 were retired and 45 were transferred to other gins. Misr management stated that they have an excess of employees and are not hiring any people. Misr had 1125 permanent and 208 seasonal employees during the 1998-99 season and 1387 in 1997-98.

The recent public gin closings (Section 7.1) to some extent exacerbated the labor problem. When any public gin is closed, the workers must not lose their jobs, but must be given alternative jobs. All of the public ginning companies have followed this policy. The gin managers have indicated that when a gin is closed, the workers are transferred to another gin close to the old gin within the company, or the workers are encouraged to take early retirement.

### **8.3 Current Employment at El Arabia**

The employment levels at El Arabia are given in Table 8.2. El Arabia has established its own early retirement program. Under this program 59 permanent employees were retired in 1998 and 38 in 1999. In January 2000 El Arabia management reported that the number of permanent employees had decreased to 750. At that time they also indicated that they would like to reduce this number to 600. Hence this indicates a current excess of 150 permanent employees, most of whom are workers located at the gins.

**Table 8.2: Number of Permanent and Seasonal Employees at El Arabia Co.**

Season	Permanent	Seasonal
1993-94	1,104	441
1994-95	1,082	348
1995-96	1,071	382
1996-97	1,068	338
1997-98	1,006	350
1998-99	897	340
1999-2000	805	N.A.
January 2000	750	N.A.

Source: El Arabia Co. N.A.- not available.

El Arabia management reported that they have reduced employment mainly through their early retirement program. They stressed that they have never asked any workers to leave. They also have two incentive programs. They make regular incentive payments to every employee but they have a special incentives program in which incentives are paid to only about 20 percent of their workers. These incentives are kept private and used as bonuses for special performance.

#### 8.4 Labor Performance, 1999-2000 Season

El Arabia has managed to reduce employment and still maintain output to give the highest level of output per worker in the industry in the 1999-2000 season.

**Table 8.3: Permanent Employees in Ginning Companies with Comparisons to Number of Gin Stands and Cotton Ginned in 1999-2000 Season**

Company	Number of Perm. Employees	No. of Stands	Employees per stand	Seed cotton Ginned 1999-2000	Kentars per Stand	Kentars per Employee
El Arabia	750	720	1.04	762,385	1,059	1,017
El Nil	850	650	1.31	641,454	987	754
Nefertiti	30*	60	0.50	27,511	459	917
Delta	1,150	825	1.39	1,041,902	1,263	906
Misr	1,386	897	1.54	649,809	724	469
El Wadi	800	624	1.28	761,915	1,221	952
<b>Total/Ave.</b>	4,966	3,774	1.31	3,884,976	1,013	782

\*Estimate for Nefertiti from Tranche III Verification Report, APRP, July 1999, page 40.

The performance of Delta in 1999-2000 was the result of a fairly aggressive approach to expand the volume of cotton ginned. This strategy is discussed in the following chapter on competition.

The performance of El Nil has not been as good as that of El Arabia. During the 1999-2000 season private traders reported that El Nil did not compete with the other ginning companies in terms of ginning charges, and as a result, they lost market share, which reduced their output per worker. El Nil recently lost its general manager. New management is expected to work to regain market share.

## 9. COMPETITION IN THE GINNING INDUSTRY

### 9.1 Competition under Nationalization

Prior to the privatization of gins in 1994, the seed cotton crop was allocated to the five ginning companies on the basis of the total number of operating gin stands that they had in their gins. This policy encouraged ginning companies to keep as many stands in operation as possible so that they would get a larger market share. But once they received their allocation of seed cotton, the ginning companies had little concern for the quality of the service rendered.

Also, prior to privatization in 1994, the ginning charge was set jointly by a committee of the ginning company chairmen along with management of the holding companies. Hence, the ginning companies did not compete on price, and very little competition existed with regard to the quality of the service provided.

### 9.2 Competition under Privatization

Gains from privatization will likely come about through increases in competition that may result from privatization. That is to say, privatization is not an end in itself, but it may lead to an increase in competition between firms in that industry and thus eventually lead to improved service and quality of the product. Privatization will not necessarily increase competition. Substitution of private ownership for public ownership does not guarantee competition, but it can if the conditions are right.

Competition is not easy to verify. It usually can be measured only in a qualitative sense. In the case of ginning, companies can compete by offering lower ginning charges, by providing some other monetary or non-monetary services, or of course by doing a better job of ginning the cotton. To try to assess the degree of competition currently existing in the ginning industry, three public and 12 private cotton traders were interviewed in January-February 2000. These traders were asked to report their opinions regarding services and competition currently existing in the ginning industry and to make comparisons with earlier periods.

Competition in the ginning industry is somewhat hampered by the MALR regulation regarding one variety per gin coupled with the varietal map drawn each year by the MALR.<sup>20</sup> In fact, these restrictions cause several problems for ginners. Ginners have voiced concern over these restrictions in that it makes new investment somewhat difficult. For instance, when considering investments in UD bale presses or ginning improvements, traders try to predict which variety will be grown in which area and what variety will be ginned at each gin. Some traders want to invest in a gin that will be ginning an export variety, but this may change from year to year. The cotton varieties have been moved around, particularly in Lower Egypt, so that a gin may be used to gin an export variety one season but not the next season. This dilemma would be simplified with a general reduction in the number of varieties grown.

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<sup>20</sup> An additional restriction is that seed cotton from which the seed will be ginned and used for replanting by producers next season is ginned in only specified gins. Thus a trader who buys cotton to be used for replanting seed has fewer ginning options. Most of this cotton is handled by EMEPAC.

Thus, when choosing a gin to gin their cotton, traders must restrict themselves to the gins specified by the MALR to gin the variety that they have purchased. Table 9.1 illustrates the ginning options open to cotton traders by variety. These data show that some ginning alternatives are available for most varieties. Because of the small production of Giza 45 it is all ginned at one gin, and in fact that one gin is used to gin two varieties (G-45 and 85). In all other cases some ginning alternatives are available to the trader. The trader can choose between ginning companies for most varieties and can select from several gins in the case of varieties such as Giza 80, 85, 83 and 89.

**Table 9.1: Classification of Gins by Variety Ginned in 1999-2000 Season**

Variety (Giza)								
Company	45	70	86	89	85	80	83	Total
EL ARABIA		1	2	4	1	2	2	12
EL NIL		1	1	4		1	1	8
NEFERTITI						1		1
Misr			1	1	1	3	6	12
DELTA	1/2	1	3	3	2 1/2	1	1	12
EL WADI		1		3	4	2		10
<b>TOTAL</b>	1/2	4	7	15	8 1/2	10	10	55

All of the public and private traders who were interviewed indicated that they are permitted to select the gin in which to gin their cotton, within the limitations on varieties and planting seeds of MALR mentioned above. They then select a gin on the basis of location, price and non-price factors. Almost every trader stated that most gin companies give discounts from the stated charge of LE 18.50/ Lint Kt. Some gin managers also offer to pay costs of transporting the seed cotton from the sales rings to the gins, particularly when their gin is a long distance from the trader's sales rings.<sup>21</sup>

ElNil Ginning Company lost ground this season in terms of market share. Most private traders attribute this result to the lack of price competitiveness of this company. Traders report that all other gin managers gave discounts this season.

In general, competition seems to have increased in recent years, based on comments of the trading companies and observations over time by the authors. We cannot prove that this is due to privatization, but competition has increased since privatization has started.

### 9.3 Competition by Public Gins

The Delta Ginning Company (public) has demonstrated much more competitiveness than the other public companies of late. It formed a working partnership with Nassco Trading Co (private) a few years ago, whereby Nassco placed UD bales presses at three gins owned by Delta that gin exportable

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<sup>21</sup> Decisions regarding discounts on ginning charges or other price incentives are the responsibility of the chairman of the ginning companies, not the managers of the individual gins.

varieties. This relationship has brought most of Nassco's seed cotton to Delta, but also, other traders will bring their cotton to these Delta gins if they want to use the UD presses that belong to Nassco.

In 1999-2000 four spinning companies (Misr-Iran, Misr-Mehalla, Daqahliya S & W and Tanta S & W) entered the seed cotton market. They have little or no experience at buying seed cotton. They applied for and were allocated approximately 50 PBDAC sales rings, at which they purchased 158,000 Kt of seed cotton. The Delta Ginning Co., which is under the control of the same holding company as these spinners, was selected to gin this cotton. Delta also assisted a new quasi-private cotton trading company, Shamel El Saiad, in the same manner.<sup>22</sup> Delta managed three PBDAC sales rings for this company and thereby increased its volume of seed cotton by nearly 3,000 Kt. The Delta Company was thus able to gain a 27-percent share of the ginning market this season (Table 9.2).

**Table 9.2: Lint Cotton Ginned, by Season and by Ginning Company\***

(‘000 Lint Kentars)

Company	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000
Misr	1,383	1,438	1,532	1,610	934	469	1,329	1,524	971	757
Delta	1,491	1,388	1,733	1,965	880	991	1,463	1,542	1,051	1,219
El Wadi	931	947	1,128	1,283	772	499	1,403	1,376	741	896
El Arabia	1,085	1,077	1,405	1,707	623	683	898	1,290	941	891
El Nil	1,013	1,008	1,334	1,735	988	960	1,011	990	823	744
Al Alhy	---	---	---	---	1,102	1,016	572	---	---	---
Nefertiti	---	---	---	---	169	138	170	104	52	30
Egypt	---	---	---	---	---	23	13	---	---	---
Modern Nile	---	---	---	---	12	37	---	---	---	---
<b>Total</b>	<b>5,903</b>	<b>5,858</b>	<b>7,131</b>	<b>8,300</b>	<b>5,480</b>	<b>4,816</b>	<b>6,888</b>	<b>6,827</b>	<b>4,579</b>	<b>4,537</b>
<b>El Arabia's share (%)</b>	<b>18.4</b>	<b>18.4</b>	<b>19.7</b>	<b>20.6</b>	<b>11.4</b>	<b>14.2</b>	<b>20.4</b>	<b>20.2</b>	<b>20.6</b>	<b>19.6</b>

\* Excluding ginning by MALR for research purposes and by *dalaliib*.

#### 9.4 Market Share

El Arabia has been struggling to increase its market share. Prior to 1994 the market shares were dictated by GOE policies on sharing of the cotton crop, which was based on number of gin stands. El Arabia's market share dropped during the two seasons of private leasing, since some of its gins were on lease. The company has gained very little in market share since it was privatized in 1996. It is difficult to gain market share against government policy. For instance, in this season, 1999-2000, the public sector purchased 56 percent of the seed cotton and ginned 75 percent of this quantity in the public gins. The private firms, which bought 44 percent of the crop, directed 53 percent of their purchases to the private gins and 47 percent to the public gins.

<sup>22</sup> This company, Shamel El Saiad, has the same name as the gin in Minya owned by Nefertiti, but there is no relationship between these two companies. The Nefertiti Cotton trading company is a completely private company owned by the Nefertiti Group. The Shamel El Saiad is a quasi-private company formed by PBDAC with 24 percent ownership by PBDAC, 5 percent by the employee's association of PBDAC and the balance of the shares are owned by private investors. Its main activity is distribution of fertilizer but entered the cotton trade this season.

It appears that the Government is trying to maintain the volume in the public gins by orders to the public companies, not by competing. This phenomenon should be expected. Revenues of the ginning companies depend upon volume. The holding companies that control the public ginning companies also control the public trading companies. It will be difficult for the private ginning companies to gain market share as long as the public trading companies are retained and control a large portion of the seed cotton. Hence, financial success in private ownership of the ginning industry is dependent upon privatization not only of the remaining ginning companies but also of the public trading companies.

## **9.5 Ginning Charges**

Throughout the period of nationalization, ginning charges were set annually by some governmental official, usually in a holding company. Even in the 1998-99 season, the ginning charges were discussed at an ALCOTEXA meeting and the Government was trying to hold the line at a rate of LE 18.50/lint kentar. This was the ginning charge quoted by most ginning company officials in 1998-99 and also in 1999-2000. However, due to competition, this rate has become more or less only a starting point for negotiations. Even public traders have stated that the ginning charge is not really known for sure until the end of the season, when the chairmen of the trading company and the ginning company get together to settle accounts. "Only then will you know what the total ginning charges will be." So bargaining occurs throughout the system. Bargaining between traders and gin company chairmen has made the actual ginning charges quite indeterminate. All parties are now quite reluctant to discuss these charges openly. However, the era of the fixed ginning charges is about over.

The excess capacity situation has depressed ginning charges. As reported earlier, many traders feel that now is a poor time to own a gin because of the excess capacity and the resulting low returns to ginning investments. If that is true, how can ginning companies cut rates and give discounts? It is the excess capacity that spurs the discounts. Ginning companies try to increase their own volume by competing. *What the public ginning companies are attempting to do is not make profits but minimize losses.*

A major portion of the costs of ginning is fixed costs. All of the depreciation costs, and ownership costs, and even the costs of the permanent workers are fixed. The only costs that will increase as volume increases are the cost of the seasonal and contract labor and utility costs. They only need to increase revenues more than they increase these costs to reduce their total losses. These ginning companies have receipts that cover their annual operating costs but give a low or zero return on investments.

## **9.6 Repressing Charges and Services**

One very definite sign of increased competition as a result of privatization of the gins has been the reduction this season in the charges at the Egyptian Pressing Company for repressing from LE 19.50/Kt to LE 13.50/Kt. This reduction was prompted by the charges for repressing by the two private ginning companies of only LE 8-11/Kt.

The addition of the UD presses and the repressing facilities developed by El Arabia at Baraka and at three gins by El Nil has not only resulted in reduced repressing costs but has given traders several options for farfarra and in preparation for export. These options are valuable both in terms of competition on rates but also in the availability of facilities in terms of timeliness of export shipping. A much faster rate of shipping is now possible than existed previously with only the Egyptian Pressing Co.

## **9.7 Additional UD Bale Presses**

To our knowledge no additional UD bales presses have been installed at any gins in Egypt in the past year. An inventory of the gins reveals that there now are 13 UD presses at the gins, plus two at the Baraka repressing facility owned by the Modern Nile Group and four presses owned by Misr Mahalla Spinning company (Tables 4.1 and 4.2). In addition, the old presses at 5 gins have been modified to increase the density of the bales sufficiently to make them exportable.<sup>23</sup>

The bale presses located at the gins have the same capacity as the gins. A gin with 60 stands and working a 16-hour day can gin about 850 kentars per day or 140,000 kentars per season (165-day season). The 13 gins with UD presses can thus gin about 1.8 million kentars in a season (October 15-March 31). In addition, 4 of the presses located at the gins plus the two presses at Baraka are permitted to repress cotton of any variety. This repressing activity can continue after the end of the ginning season as long as exports continue. Thus, the UD presses now in Egypt at the gins can easily press over two million kentars per season. By early April 2000, ALCOTEXA reported export commitments thus far this season of about 90,000 MT or 1,800,000 Kt., and not all exported cotton is in UD bales. Some foreign buyers prefer the old style farfarra and pressing performed at Alexandria. Thus, there is little need for additional UD presses at current export levels.

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<sup>23</sup> There is now no legal requirement regarding the density of bales for exporting. A higher density than the regular gin bales is needed to reduce shipping costs.

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**ANNEX I: LIST OF PERSONS INTERVIEWED**

### **Ginning Company Headquarters:**

Dr. Hani Olama, Managing Director of El Arabia Company and Amin Abaza  
Managing Director of Modern Nile Trading Company.

Said Ezz El Arab, Chairman of Delta Ginning Company and Mahmoud Abdel Rahman.  
Chairman of the Ginning Sector,

Ahmed Selim, General Manager of Misr Ginning Company.

Esmail Ragab, Chairman of the Commercial Dept., Mahmoud Saedwy, Chairman of  
the Ginning Dept., and El Sayed Shahine, Commercial Counselor Monier of El  
Nil Ginning Company.

Bahaa El Sherif, Chairman of El Wadi Ginning Co.

### **Individual Gins:**

Abdel Baset Mohamed Ebrahim, General Manager of the Misr gin at Abou El Akder  
in Sharkia, with chief residence CATGO grader Hossein El-Helali.

Abdel Latif Soliman, General Manager of the El Wadi Gin at Kafr El Zayat.

Edward Malky, Manager of the Misr gin in Fayoum.

General Manager of the El Arabia gin at Ahnassia, in Beni Suef

Hosny El Saied Hussein, General Manager of the Delta gin at Diarb Nigm in Sharkia.

Mahmoud Marous, Manager, and his assistant Fathy Khalifa of El Arabia Co.  
pressing and farfarra facility at Baraka.

Morsen Ahmed Orabi, Manager of the El Arabia gin at Simbelaween in Dagahliya,  
with Mahmoud El Banna, a cotton grader for Modern Nile.

Mostafa Kamel, Manager of the El Arabia gin at Miniat Saminoud in Daqahliya, and  
Magdi El Zambalie, General Manager of the quality control sector in the El  
Arabia Ginning Co.

Osman Hassan El Kady, General Manager at El Nil Gin at Etay El Baroud  
with Eng. Adel Abdou, Manager of the CATGO office at the gin and William  
Moawad, a CATGO grader.

### **Private Traders**

Ahmed Shouman, Chairman of Nefertiti for Trading and Cotton Export

Mamdoch Sayed Abdel-Sattar, Chairman of Eastern Cotton Co.

M. Alaa El Din Bishbishi, Managing Director of Al Watany

Medhat El Alfy, General Manager, Abdallah El Borai, Commercial Manager, and  
Mamoud Nauman of NASSCO and VOLCOT

Mohamed Montasser, Managing Director and Mohamed Ibrahim Zobeir, Commercial  
Manager, Talaat Harb Co.

Mohamed Said, Gen. Mgr. and Mohamed Yousery, Commercial Dir. of Mabrouk Co.

Mohsen Abdel Latif, General Manager of Modern Nile

Said Haggag, Chairman of ALCOTEXA and Alcotan Cotton Trading Co.

Wagdi Hendy, Chairman, Port Said Trading Co.



## **Spinning Companies**

M.A. Hegazi, Head of Unirab Spinning & Weaving Co.  
Refaat Helal, Chairman, Alexandria Spinning Weaving Co.