The impact of the new international cotton policy on the Greek cotton production sector

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Abstract

The current negotiations under the WTO and the implementation of the Agenda 2000 in the EU create a totally new trading environment for cotton worldwide. This article examines the subsidy schemes being applied worldwide, presents the cotton trade flows on an international level as well as for Greece and all relevant studies referring to the consequences on global trade if every subsidy scheme is phased out. At the end, a new marketing strategy is proposed for the Greek cotton production sector in order to create a competitive advantage and be in a position to face the increased trade competition globally.

Key words: Cotton subsidies, Trade flows, Policy, Business plan.

Résumé

Les récentes négociations sous l'égide de l'OMC et l'application de l'agenda 2000 créent un nouveau environnement commercial pour le coton à l'échelon mondial. Cet article examine les schémas de subventions appliqués dans le monde entier, présente les flux commerciaux du coton –au niveau international et en Grèce- et toutes les études portant sur les conséquences de l'élimination des subventions sur le commerce global. Pour conclure, on propose une nouvelle stratégie de marketing pour le secteur de production du coton en Grèce afin de créer un avantage compétitif et de faire face à la compétition commerciale accrue.

***Mots cles**: coton, flux commercial, subventions, politique, Plan de gestion.*

1. Historical Review

Cotton is one of the most important non-food agricultural products, since it is being used as a raw material for numerous final products being purchased on a daily basis. The developped world adopted and intensified cotton production procedure, because the target was high levels of self-sufficiency, which could give a boost to grow to the clothing industry. On the other hand, cotton production was a quite tempting production procedure for the primary sector, because it is almost a fully mechanised cultivation, the operational risk is low, compared to other cultivations like fruits and vegetables and trading of the produced commodities is quite secure too. In order to remain safe and secure the productive and trading environment for cotton in the developed world, several protective policies were designed and implied during the last decades, having as targets not only to protect the internal market from new entries from abroad, but to gain market shares also on an international level. The mix of these policies had two main pillars, subsidies directly tailored to production and subsidies promoting exports, covering the gap between domestic and international price. At this point it is necessary to focus on these subsidies of developed countries and elevate their distorted outcomes on international trade.

2. Subsidy Schemes Around the World

2.1. US Subsidy Scheme

The most important stages in the US policy for cotton, affecting nowadays international trade, have as starting point the 1996 Farm Bill (USDA, 1996). This was the first time for US to implement decoupled direct payments to farmers. The main channels which were used to provide these subsidies were decoupled payments, market price payments, insurance, export subsidies and emergency payments. The decoupled payments were given to producers by signing a contract, the Production Flexibility Contract (PFC), where farmers and government agreed to be paid for the five subsequent years a fixed price for cotton. This mechanism was absolutely ignoring market price fluctuations and it was a very powerful protection scheme for agricultural income, but quite distorted also, regarding international trade. Market price payments were designed to eliminate differences between world price and support price when the former is lower compared to the latter. The minimum support price was $1.10 per kilogram and the maximum $1.14 per kilogram. The exact price was the result of the implementation of a statutory formula, comparing domestic and world prices. There was also a precondition obliging farmers to place their ginned cotton in a Community Credit Corporation (CCC) approved warehouse. This mechanism was distorted too, because it was almost impossible for cotton farmers to be affected by global fluctuations of supply and demand, because their income was highly secured on a $1.10 – 1.14 price level.

Another way of providing subsidies was by securing the repayments of loans being given to farmers by CCCs the time of ginning. These loans where repaid when the actual purchase took place. The base for repayment was the Adjusted World Price (AWP), which was calculated taking into account Northern European cotton prices adjusted to US

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base quality and average location. When farmers during the ginning period were taking loans for their ginned cotton at harvest time, the price that was being used to calculate the value of the commodity was the support price. When the actual purchase was taking place, the loan should be repaid. The price being used that period of time was the AWP and they had to repay the loan on an AWP rate and not on a support price rate. If the AWP was lower than the support price, the difference was paid by government funds and under certain circumstances interest charges on loans and warehouses charges were also met by government. This way of securing farmer's income was an indirect way of providing subsidies, but it was distorted, because it did not allow market forces to affect agricultural income.

The export subsidy scheme in order to be activated required the satisfaction of a double based precondition. The US domestic price should exceed the Northern European cotton price by more than $0.0275 per kilogram for four consecutive weeks and the AWP to be within 134 per cent of the base support price. These preconditions had as an objective to maintain the US competitiveness and bridge the gap between higher US domestic prices and world prices. For this scheme the US had to defend their policy several times in the WTO, because there were accusations, especially from developing countries that this mechanism gains market shares on an international level, ignoring the fact that US cotton is not directly competitive globally.

The new Farm Bill came into force in 2002 (USDA, 2002). There are several changes compared to the previous one. The most important ones are the increase of government assistance from 32 per cent of average farmer income up to 45 per cent. The PFC payment has been replaced with a direct payment scheme. Payments are based on historical planted area and yield rather than on actual production. There is an alternative for farmers to select the historical period of 1998 – 2001 instead of the previous one under the 1996 Farm Bill, if they believe that they will gain more subsidies from that change. Direct payments are totally independent of market prices and are set at $0.15 per kilogram for marketing year 2002/03. Finally there are anti-cyclical measures which are used when the effective price is lower than the target price. Effective price is the sum of direct payment and the support price. In the first year of implementation of the new Farm Bill, the effective price was $0.52 and the target price was $0.724. The difference was covered by government funds.

From the above analysis it is obvious that the US are determined to subsidise and protect the cotton sector from international competition. On the other hand, in WTO negotiations there is strong pressure from developing countries for further liberalisation of cotton trade, because it is common belief that cotton cultivation is an important mechanism for achieving pragmatic increases of GDP of these immature economies, through exports. The US are not alone in implementing such supportive policies; EU is the second target for developing countries about distorting international cotton trade.

2.2. EU cotton policy

The cotton subsidy scheme was established by the EU in 1981, one year after Greece became a full member of the European Economic Community. Only two countries cultivate and produce countable quantities of cotton in EU, Greece and Spain, accounted for 2.5 per cent of the world production. Subsidy is given to cotton growers as a difference between support price and market price and all estimates are based on unginned cotton production. There is also Maximum Guaranteed Quantity (MGQ) of unginned cotton for each country, which are 782 000 tonnes for Greece and 249 000 tonnes for Spain. If production of each country exceeds the quantities mentioned above, there are penalties, lowering levels of subsidy by 0.6per cent for each 1per cent of excess production (R1591/2001). Although market shares of EU cotton are low, there are considerable accusations, made by developing countries, that EU cotton subsidy scheme is one of the most trade distorting ones, due to high levels of support, levels that have to be lowered.

The new policy differs a lot, compared to the current one, because 65per cent of the subsidy being given to farmers is decoupled and 35 per cent will depend on production. For the calculation of the decoupled payments a historic period is being used, the years 2000 – 2002. The 35 per cent payments subsidies tailored to production are based on the cultivating area and not on the quantities being harvested as it is until now (R 864/2004). The eligible national base area for cotton is 370,000 ha and the aid that will be given for the first 300,000 ha is 594€/ha and for the rest 70,000 ha 342.85€/ha. In order to improve the quality of cotton the R864/2004 motivates both cotton growers and ginners to establish "Approved inter-branch organisations". This, according to the regulation means '*...a legal entity made up of farmers producing cotton and at least one ginner, aiming at, in particular, the supply of quantitatively suitable unginned cotton to the ginner'* (R864/2004, Article 110d§1). The inter-branch organization will have the authority to set up a scale for payment of the subsidy being given to farmers per cultivating hectare, having as criteria '*... the quality of the unginned cotton to be delivered, adapted to the environmental and economic conditions of the zones concerned'* (R864/2004, Article 110e§2). This means that the farmers in order to be eligible for payment of the whole amount of subsidy, they must cultivate and produce high quality cotton, which is a new target for cotton growers, compared to the present status quo. Finally, there will be an extra bonus of 10€/Ha for each farmer becoming an inter-branch member.

2.3. China Cotton Policy

In 1953 China initiated a program in various versions, aimed at increasing cotton production. The cornerstone of this program was the establishment of a support price-based subsidy scheme, by setting a reference price for cotton. Since 1999 actual prices can be negotiated between buyers and sellers and the result of such negotiations can be below reference price. Procurement prices paid to producers are above world prices and the difference is covered by government. There is also an export subsidy scheme through direct payments to exporting firms which covers the difference between domestic and world prices. Finally, import tariffs are in force which are gradually being replaced with Tariff Rate Quotas (TRQs) (Research Centre for Rural Economy, 1999).

2.4. India Cotton Policy

India supports cotton production sector in a way that promotes the textile industry. There is a minimum support price for seed-cotton, regarding each variety and there is strong support in inputs being used by farmers (Mohanty *et al*, 2003).

3. Cotton Production in Africa

According to FAOSTAT, West and Central African countries in 2002 possessed 6 per cent of global production, with China and US to be the main producers with 25 per cent and 21 per cent, respectively. The percentage for African countries mentioned above is quite low, regarding the potential of these countries in natural resources and labour. Until now, due to lack of capital, the cultivation is labour intensive and irrigation networks do not exist in the majority of these countries (FAPRI, 2002).

Table 3.1. *Production of Cotton in West and Central Africa in 2001*

Country	Cotton Production (tonnes)	Earnings from cotton production ($ thousands)
Benin	107 334	124 679
Burkina Faso	59 308	68 892
Cameroon	83 865	97 418
Central African Republic	11 100	12 894
Chad	46 087	53 535
Congo	9315	10 820
Cote d' Ivoire	88 034	102 260
Gambia	100	116
Ghana	7672	8912
Guinea	1330	1545
Guinea-Bissau	2949	3 426
Liberia	40	46
Mali	251 748	292 430
Niger	6889	8002
Nigeria	149 595	173 770
Togo	3575	4153
Total	*828 941*	*962 898*

Source: ICAC Statistics

Table 3.1 shows the main cotton producers in Africa and the economic results of the cultivation for each country. The main cotton producer countries are Benin, Cameroon, Cote d' Ivoire, Mali and Nigeria.

Table 3.2 describes the evolution of cotton trade for the last twenty years. The most important results are the significant increase in cultivated area, it marked a four-fold increase in 2001 compared to 1980 and the same tendency is reported for production and exports. Unfortunately, due to the lack of income, domestic consumption remains stable for a long period of time, being another indicator of low performance of their economies.

Table 3.2. *Trade Flows of Cotton in West Africa*

	Area	Production	Initial Stocks	Imports	Consumption	Exports	Final Stocks
	,000 Ha	,000 Tons					
1980/81	588	199	90	0	38	172	86
1981/82	507	188	86	0	37	146	90
1982/83	544	235	90	0	34	184	109
1983/84	635	267	109	0	34	230	113
1984/85	686	306	113	0	35	216	146
1985/86	782	339	146	0	34	317	145
1986/87	821	400	145	0	37	339	158
1987/88	883	396	158	0	39	371	164
1988/89	1061	483	164	0	35	442	175
1989/90	1001	448	175	0	35	432	140
1990/91/	1074	515	140	0	34	464	166
1991/92	1193	502	166	0	33	489	146
1992/93	1164	521	146	0	26	471	147
1993/94	1133	495	147	0	27	492	122
1994/95	1358	560	122	2	31	583	75
1995/96	1457	653	75	3	33	589	116
1996/97	1703	774	116	2	38	694	158
1997/98	2066	909	158	0	43	788	238
1998/99	2154	837	238	0	38	792	244
1999/00	2016	840	244	0	34	753	298
2000/01	1647	686	298	1	33	737	234
2001/02	2245	983	234	0	33	737	456
2002/03, est.	2132	881	456	0	21	793	523
2003/04 for.	2170	900	523	0	28	982	412
2004/05 for	2220	959	412	0	34	945	390

Source: ICAC Statistics

4. Trade flows on an international level of cotton

Table 4.1 describes trade flows for cotton on a global basis. The most important trends for cotton production and trade are the significant increase of production in China (34.5per cent) as well as in Pakistan and Brazil (12.9 per cent and 12.4 per cent respectively). The same tendency appears in cotton use too for China, but there is also a significant decrease in the US. As a result of this booming in production in China there is a very important, for international trade, decrease in imports. Pakistan follows the same tendency, but Thailand increased its imports by 23.1 per cent and Brazil achieved the biggest increase, up to 122.2 per cent. Considerable losses had the US too, up to 12.1 per cent. Finally, there is a tendency of increasing stocks worldwide, as a stabilization mechanism. The larger exporters are US, Uzbekistan, Australia, Greece and Brazil, which contributed 70 per cent of total exports in 2001. On the other hand, West and Central African countries hold 10 per cent of total exports for the same year. This status quo was the reason for serious complaints from developing countries, regarding the trade distorting policies being implied by the major exporting countries, because the above percentage is not relied upon supply and demand equilibrium, but upon a heavy subsidized regime which covers the gap between domestic and international price.

Table 4.1.*World Cotton Supply, Use and Trade 1999/2000-2004/2005 in 1,000 tonnes*

	1999/00	2000/01	2001/02	2002/03	2003/04 est.	2004/05 for.
Production						
World	19 057	19 326	21 472	19 221	20 443	22 802
China; Peoples Republic of	3832	4420	5313	4921	4855	6532
United States	3694	3742	4421	3747	3975	3919
India	2652	2380	2678	2308	2874	2722
Pakistan	1872	1785	1807	1698	1687	1905
Brazil	700	939	766	847	1263	1415
Uzbekistan; Republic of	1128	958	1067	1002	914	1002
Turkey	791	784	865	910	893	925
Other	4386	4317	4555	3789	3982	4383
Use						
World	19 799	20 062	20 589	21 478	21 422	21 808
China; Peoples Republic of	4638	5177	5715	6510	7011	7446
India	2950	2949	2890	2896	2896	2961
Pakistan	1666	1764	1851	2047	2090	2155
United States	2220	1929	1676	1584	1372	1263
Turkey	1219	1125	1339	1372	1306	1328
Brazil	922	914	827	784	816	849
Indonesia	435	533	501	490	468	479
Other	5750	5731	5789	5796	5462	5326
Imports						
World	6124	5738	6461	6598	7348	6744
China; Peoples Republic of	25	52	98	681	1916	1252
Turkey	523	381	624	493	479	474
Indonesia	452	577	513	485	468	490
Pakistan	103	98	218	185	381	327
Mexico	395	406	450	501	370	327
Thailand	371	342	448	423	370	457
Bangladesh	169	218	261	348	335	365
Other	4086	3663	3849	3481	3028	3054
Exports						
World	5905	5753	6296	6608	7175	6674
United States	1470	1467	2395	2591	3005	2460
Uzbekistan; Republic of	893	740	740	762	680	675
Australia	699	850	675	578	468	457
Mali	196	125	201	185	256	223
Greece	235	310	218	250	255	196
Burkina	113	113	142	158	207	196
Brazil	3	69	147	106	196	435
Other	2297	2078	1779	1978	2108	2031
Ending stocks						
World	9906	10,301	10 301	7980	7171	8228
China; Peoples Republic of	3866	2,745	2745	1673	1395	1689
Brazil	521	526	526	627	1003	1264
India	1070	1,116	1116	782	837	837
United States	852	1,622	1622	1172	784	980
Pakistan	587	710	710	491	431	458
Turkey	180	316	316	281	259	280
Australia	503	481	481	268	132	205
Other	2327	2,785	2785	2686	2330	2516
Source: USDA, FAS						

5. The impact of cotton subsidies on international level

There are many studies attempting to measure and evaluate the impact of cotton subsidies on global trade. These studies propose a number of scenarios about the evolution of global trade in the case of elimination of subsidies of cotton. All of them conclude that the elimination of cotton subsidies will lead to an increase of cotton prices and to an increase in market shares too for developing countries.

Table 5.1 describes the results of all studies referring to cotton policies and subsidies on an international level, trying to answer the question of what is the future of cotton production after the elimination of cotton subsidies. Although the findings referring to price effects vary a lot, the general conclusion is that elimination of subsidies lead to considerable increases of cotton prices. The most important study for African developing countries was undertaken by Goreux (2003) who used a partial equilibrium model to estimate the impact of cotton subsidies on export earnings in West and Central Africa. The most important results from the above simulation are the following:

World cotton price will increase by 15.2 per cent, up to $1.34 per kilogram

World cotton production will be reduced by 1.4 per cent

The above reduction will be allocated to the US, China, Greece and Spain by 600,000 tonnes, 315,000 tonnes, 118,000 tonnes and 39,000 tonnes respectively.

Developing countries will increase their production by 7.3 per cent up to 804,000 tonnes.

This study has a special interest for Greece, because the reduction of production is very high, exceeds 30 per cent of current production, being almost impossible for cotton growers to accept such a scenario as well as policy makers in the EU. On the contrary, WTO negotiations until now have arisen, as a top priority issue, the liberalization of cotton trade, pressing developed countries to reform their cotton policies to a more market-oriented direction.

Table 5.1. *Summaries of research on the effects of cotton subsidies*

Study	Method	World price effects of removing all cotton subsidies
FAPRI (2002)	Partial equilibrium	+11.44 % in 2002 (removal of all trade distortions)
Goreux (2003)	Partial equilibrium	12 % in 2000/01 (removal of all subsidies)
ICAC (2002)	Partial equilibrium	29.7 % in 2000/01 +74.2 % in 2001/02
ICAC (2003)	Partial equilibrium	+70 % in 2001/02 +15 % in2002/03
Tokarick (2003)*	Partial equilibrium	+2.8 % (removal of all support) +2.0 % (removal of subsidies only)
Quirke (2003)	General equilibrium	13.4 % in 1999 (removal of US and China subsidies)
ODI (2004)	Partial equilibrium	+18 % in 2000/01 (single market, uniform supply elasticity)
		+20 % in 2000/01 (fragmented market, uniform supply elasticity)
		+22 % in 2000/01 (single market, differentiated supply elasticity)
		+28 % in 2000/01 (fragmented market, differentiated supply elasticity)

**Tokarick assumes a demand elasticity equal to -0.75 and supply elasticities equal to 1.5. Most other previous studies assume a demand elasticity equal to -0.1 and supply elasticities equal to 0.5*

Source: Overseas Development Institute (ODI)

6. The new policy regime for cotton under the WTO negotiations

It has already been mentioned that during the current WTO negotiations, there is considerable interest from both developed and developing countries regarding the applicable cotton policies and their impact on global trade. During the Cancun Ministerial Conference on September 10-14th 2003, the participants accepted the joint proposal of Benin, Burkina Faso, Chad, and Mali under the title "Poverty reduction: Sectoral initiative in favour of cotton". The solution that was proposed in this letter is '*...the establishment of a mechanism to phase out* *support for cotton production with a view to its total elimination "early harvest" and transitional measures in the form of financial compensation for cotton producing LDCs to offset their loss of revenue, until support for cotton production has been completely phased out'* (WTO, 2003: 1). Finally, in the Draft Cancun Ministerial Text in the Sectoral initiative on cotton, there is an exhortation to WTO members from developed countries to *'...refrain from utilizing their discretion within Annex A, paragraph 1 to avoid making reductions in domestic support for cotton'* (WTO, 2003: 1). It is evident that the pressure for serious changes being implied by developing countries to developed ones is quite high and, to some extent, it is accepted that trade distortions on cotton trade must be considerably reduced. Although there are no final decisions on how these distortions will be eliminated, the EU is preparing a new policy regime for cotton, having as preconditions to satisfy the new agenda being adopted by the WTO, give financial and technical assistance to African cotton producing countries and protect as much as possible the EU cotton producers, where the vast majority of them are Greek. Under these circumstances the most feasible scenario is the compulsory adoption by developed cotton producing countries of less distorting policies, like decoupled payments, to a larger extent, as well as implementation of cooperation projects with African countries, providing financial and technical assistance in order to increase their productivity and improve the quality of African cotton.

7. The Greek cotton production sector: current situation and outlook for the future

Cotton cultivation in Greece had the most important booming in history after Greece's accession to the EU in 1980. The subsidy scheme applied was at the beginning based on market price support without any restrictions. This subsidy scheme was a very strong motive for cotton growers to increase gradually the cultivating area with cotton, having as a result in twenty years the cultivating area with cotton to be quadrupled.

Table 7.1. *Cotton-growing area in the EU (Ha)*

Marketing Year	Area Greece	Area Spain	Area Italy	Area Portugal	Total Area
1982/83	137 000				137 000
1983/84	168 000				168 000
1984/85	192 042				192 042
1985/86	209 000				209 000
1986/87	210 000	80 583	33	0	290 616
1987/88	202 000	81 306	255	0	283 561
1988/89	256 000	135 473	166	0	391 639
1989/90	280 000	67 829	93	0	347 922
1990/91	268 000	83 881	81	0	351 962
1991/92	233 000	78 496	0	0	311 496
1992/93	321 200	76 026	0	0	397 226
1993/94	351 570	31 768	0	0	383 338
1994/95	382 642	39 989	0	0	422 631
1995/96	440 642	32 031	0	0	472 673
1996/97	423 000	78 917	0	0	501 917
1997/98	396 085	113 579	0	32	509 696
1998/99	407 000	100 532	0	40	507 572
1999/00	427 000	110 664	0	40	537 704
2000/01	405 000	88 935	0	0	493 935
2001/02	378 738	91 067	0	216	470 021
2002/03	357 569	87 068	0	497	445 134

Source: European Commission

After the implementation of the Agenda 2000 and the 1591/2001 EU Regulation, there are in force very strict restrictions on both cultivating area and production. The new Regulation sets ceilings, named National Guaranteed Quantities (NGQs), for each cotton producing country and when production exceeds that limit a mechanism reduces the subsidy being given to producers proportionally. This is a stabilizing mechanism for cotton production not to exceed the NGQ being implied by the EU.

Although the new Regulation liberalises a lot the production and trading environment, it does not provide solutions to all problems the sector faces now. The main problem of Greek cotton sector is the same with the cotton being produced in every developed country; it cannot gain market shares on a price based competitive environment. This problem becomes more serious for Greece, due to the small size of agricultural holdings (4.62 Ha on average per holding for arable crops), because it increases the production cost and does not allow the development of economies of scale (General Secretariat of National Statistical Service of Greece, 2004). Another problem is the increased protection the sector had for many years from international competition. This protective environment in accordance with the pricing policy which was paying the unginned cotton to producers and not the ginned cotton as it is done worldwide, did not allow the producers to reach final cultivating decisions influenced by market forces. The new regulation, although has as target to increase the market influence, has some

weaknesses on achieving this goal. For the inter-branch organisation to work properly, it is necessary to include as active bodies all parties using cotton as a raw material to reach end products, with increased priority those bodies that supply the market with these products and have close cooperation with consumers. Regulation 864/2004 requests as compulsory members for the establishment of an inter-branch organisation the producers and at least one ginner. According to this, it is not necessary to partake of the spinners and the textile manufacturers and the question is who is going to be the one who will inform the cotton growers about the preferences of consumers about what sort of cotton they need to use. The other very crucial parameter that has to be always in mind is the asymmetries that characterise trade in the primary sector, because there are many sellers (producers) and few buyers (ginners). Until now, even in this protective environment, every year at harvest time the producers had the ability to choose the ginner to whom they would sell their harvest, having by this way a considerable bargaining power. The inter-branch organisation, as it is being proposed to be established by the R864/2004, minimises this bargaining power the cotton growers had with R1591/2001 being in force until the end of 2005, because when a farmer will choose to establish an inter-branch organisation with one ginner, he will not have the ability to change partner, even if someone else is offering better price for his cotton. It is obvious that this system increases a lot the operational risk for cotton growers, does not allow the market to operate with flexibility, minimises competition amongst ginners and tailors the market for the formation of a ginners' cartel, something that it is not acceptable by the principles the WTO want to imply. It is necessary to correct as soon as possible the Regulation, by setting as compulsory the participation in the inter-branch organisation of the ginners and the textile manufactures. The negotiations in this body must be made by representatives and for that reason the establishment of cotton producers groups shall be required, which will represent the cotton growers to the talks. By this way, the price will be negotiable too and the technical specifications of cotton wanted to be produced by consumers will more easily reach the farmers. The main target for the following years must be the avoidance of extensive reduction in cotton production and the significant increase of added value of the product. The corrections being proposed for R864/2004 have as an objective to keep as tempting as possible the motives for farmers to continue to produce cotton, because if there is no product to be used as raw material, every policy being proposed is useless. By decreasing the bargaining power of producers and tie them up to the ginners, they are being created anti-motives for them to continue to produce, jeopardise by this way every attempt to adapt the sector to the new status quo.

8. Business Plan for the Greek Cotton Sector

The above analysis proves that after the year 2006 the EU cotton production procedure will be significantly liberalized and their cotton growers will be more affected by the highly competitive trading environment. Another very important issue is that the Greek cotton market share is very low (nearly 2 per cent) and it is impossible to affect the cotton price on a global level. For all the reasons mentioned above, there is a strong necessity for the formation and implementation of a specialised marketing strategy for the Greek cotton sector. The characteristics of the sector suggest as the most suitable marketing strategy the differentiation strategy, because it is almost impossible to compete with developing countries on a cost production basis and it is difficult enough to organize on a national basis the production procedure in such a way, in order to be in a position to cover the needs of niche markets. The implementation of a differentiation strategy is a feasible alternative with considerable potential, because it is a way of exploiting the competitive advantages of Greek cotton sector and improving the financial situation of cotton growers. For the proposed strategy to be workable, it must be formatted on a marketing mix proposing specific actions for product, price, place and promotion, the four elements of marketing mix.

8.1. Product

The characteristics of Greek cotton will be the cornerstone of the differentiation strategy, with significant changes compared to the present status quo. The new EU Regulation 864/2004 gives to the sector very important financial instruments, in order to establish mechanisms which can increase the added value of the product. The establishment of inter-branch organizations can give the authority to the Board of Directors to set new production procedures to improve quality, protect the environment and shorten the cost of production. The production procedure will be monitored and evaluated continuously by an independent organization which will certify the inter-branch organization with a quality assurance certificate. The positive outcomes of this action are very important, because the final product will be homogenized and characterized by technical specifications, a very important precondition for the spinning industry. The close monitoring of the use of inputs will help cotton growers to decrease production costs, because the inter-branch will have the ability to offer high quality technical assistance which will decrease the misuse of fertilizers and various agrochemicals being used during the production procedure. Until now technical assistance is being given by the sellers of inputs, so there is no motive for them to reduce their sales, because this will reduce their income. When the technical assistance will be provided by agronomists being employed by the inter-branch organization, they will know that their task is to provide to cotton growers knowledge about how to use inputs in the most efficient way.

Another crucial task for the inter-branch organization is to produce cotton in a way that the pollution of the environment is minimized. This can be achieved through the efficient use of agrochemicals and fertilizers and by the use of more environmentally friendly chemical substances which do not disturb environmental balances and do not pollute underground water with nitrates, which is a serious problem in zones where there is cotton production for many years. Especially at Thessalia, a region in central Greece, there is considerable experience and know-how on the decrease of pollution of underground water by nitrates, due to the implementation of a project financed by the EU since 1995, with very positive results for the region. This project can be extended to more regions with similar pollution problems, in order to increase the documentation for protecting the environment. The project subsidises farmers to use nitrate fertilizers which are being absorbed by plants faster than conventional fertilizers. By this way, nitrates do not remain for a long period of time in soil and do not have the ability to leave surface and leach in the underground water. Cotton being produced in such a way is very suitable for the implementation of the differentiation strategy, because its qualitative characteristics in accordance with the proven effort for protecting the environment satisfy the preconditions being set by Agenda 2000, as well as the customer's demand for environmentally friendly production practises being implied by producers.

The recent CAP reform (September 2003) has already taken care about covering from the Second Pillar this extra cost for consultancy, so cotton growers will not have to face this cost on their own. The certification of cotton production will put an end to the anonymity of Greek cotton during the merchandise procedure. A product with identity is always characterized by high added value, claiming by this way higher prices and easier access to markets on an international level. The differentiation strategy referring to product is based upon the style of Greek cotton. The special characteristics, which under this strategy the product will have, are homogeneity, high quality, safety in use, reliability and establishment of cotton production procedures which protect the environment, something that is very important for the markets of the developed world. The above characteristics are difficult enough to be reached by developing countries for the following reasons. Developing countries do not have the infrastructure the developed countries, like Greece, have. This infrastructure consists of irrigation systems, modern machinery, ability to use fertilizers and agrochemicals, specialized farmers on cotton production and storage premises which reduce to a large extent the production risk and improve the quality of the final product. Products with the above characteristics have always place in markets and it is difficult enough for new competitors to enter these markets without their product to have similar characteristics.

8.2. Place

The decision where to sell is crucial for a successful marketing strategy. According to current trade flows the majority of Greek cotton being exported goes to Turkey, because of its low quality (ICAC, 2003). The proposed marketing strategy sets as market targets the EU countries with considerable spinning and clothing industry, like UK, Italy, Germany and Spain. The present status quo does not allow Greek cotton to reach these markets and responsible for this to a large extent is the cotton subsidising policy being implied until now, because it is a policy that does not motivate cotton growers to improve quality and ginners to force them to deliver unginned cotton to their mills with high quality characteristics. For this marketing strategy to be as feasible as possible, it must be mentioned that it will not be easy to enter the markets mentioned above. The reason is that, especially the spinners have already organized the mixture of ginned cotton they use in order to produce types of yarn they want to sell. In order to change their sources of provision of the ingredients for their mixtures, a lot of effort is needed to persuade them to make these changes due to a better outcome. The priorities for spinners are the durability of ginned cotton and the thickness of the produced yarn. This is happening because the spinning speeds are always increasing, to increase productivity and not durable cotton is responsible for many breaks of the spinning procedure, which decreases productivity at the end. When a spinner has such cotton to spin, the alternative he has is to increase the thickness of the yarn being produced. This solution has a negative effect on quality, because this yarn cannot be used for the production of high quality cotton fibres which enclose high added values. In an organised market, like the cotton market, the textile industry in close cooperation with the spinning industry, are the ones which must set the technical specifications for the cotton they want to be produced by the cotton growers and the ginning mills. This target can be achieved through the successful operation of an inter-branch organization; where it is possible the feedback from this useful information shall reach the cotton growers and create secured marketing channels to highly profitable markets for the product.

8.3. Price

As it is already well known, cotton prices are being formatted in stock markets in Europe and the US through futures contracts. This price refers to ginned cotton with specific quality characteristics and it is well known as Cotlook A index. When the EU cotton policy comes into force in 2006, this will be the price which the Greek cotton will pay to cotton growers, if the quality characteristics reach the Cotlook A index standards. Countries having a considerable impact on formatting the above price are mainly the US and China, due to the large quantities they produce. The differentiation strategy can establish special pricing agreements between contracting parties, operating as partners in an inter-branch organisation. Such contracts can create a "win-win" situation for all contracting parties, because the buyers will have raw materials with the desired technical specifications and the sellers will have higher prices through the establishment of bonuses for reaching the desired standards and secured marketing channels for the product. Of course these bonuses cannot be considerably high, compared to the international market prices and cotton growers must not expect serious improvement of their income through them. The most important gain of this strategy is the establishment of secured marketing channels in a highly competitive market, because without this precondition a quite serious crisis might occur.

8.4. Promotion

The consistent parts of the promotion mix are advertisement, personal sales, sales promotion, direct or postal communication, public relations and publicity. This marketing strategy is being proposed for cotton as a raw material, so the promotion mix must be focused on the buyers of it who are the ginners and the spinners. Under this way of thinking a very important role can be played the personal sales, the direct or postal communication, the public relations and the publicity. The most important consistent part is personal sales. Personal sellers are the ones who will know very well the technical specifications of the products, as well as the pricing strategy for it. They have the ability to give to the candidate buyers all the necessary information they want for the product and their target will be to convince them to buy and if it is possible to sign a contract which will tie down both contracting parties to cooperate. The sellers must have the ability to offer special bonuses to the buyers, like discounts when large quantities of cotton are being sold, giving in this way an extra boost to sales promotion.

The direct or postal communication is also very useful, because in this way it is possible to establish a channel providing very important information to the buyers like estimates of producing quantities, quality characteristics, price fluctuations, extra bonuses, new ways of cooperation, etc. In this way, the interest of customers remains high for the product, being easier at the end to reach an agreement to buy. Finally, public relations and publicity are important too and can be achieved through the participation of a group of experts responsible for the implementation of the promotion strategy to exhibitions and congresses. It is obvious that this task can be implemented only by the inter-branch organisation. Cotton growers will gain a lot through this new procedure of promoting their product, because this is the only feasible way for entering new markets and establishing long term cooperation with spinners which produce high quality cotton yarn.

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