## *Review* History of Tea Production and Marketing in Turkey

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## ABSTRACT

The paper reports slow but steady rise and popularity of tea cultivation in the Eastern Black Sea region of Turkey. The report covers the time when it was not accepted by the farmers due to large number of socioeconomic factors and lack of proper technical guidance, to a time when it is considered a highly profitable and economic crop of the region.

Key Words: Turkish tea; Eastern Black sea region; Socioeconomic factors

## **INTRODUCTION**

Today tea is cultivated in over 30 countries of the world including Bangladesh, China, Georgia, India, Indonesia, Iran, Japan, Kenya, Malawi, Malaysia, Sri Lanka, Taiwan, Tanzania, Thailand, Turkey and Uganda. India, China and Sri Lanka produce 60% of the total production alone. Georgia, Indonesia, Kenya and Turkey closely follow it (FAO, 2004).

The tea has been cultivated in China about 2000 years ago, where its leaves were processed and used its infusion as a palatable drink. According to another version people in the Shan states of Burma and Siam (Thailand) used the leaves of tea plant for medicinal purpose and as beverage for as long as the Chinese people. Its original home is in an indefinite area to the south east of Tibetan plateau including Sce-Chuan, YuNan, Burma, Siam and Asam in the North East India. It was spread by natives over the centuries. Camellia sinensis and its many cousins are indigenous throughout the forests of South East Asia, where in its natural state, it grows into a tree between 30 and 40 feet tall (Weatherstone, 1992). The genus Camellia includes 82 species, of which C. sinensis is most important both commercially and taxonomically. Since all Camellia spp., do not produce the brew that goes in to the cup and cheers (Benerjee, 1988). Many number of tea species are used as ornamental plants (Benerjee, 1992).

The tea was first carried westwards during  $5^{\text{th}}$  century by Turkish Traders, who used it in barter trade for Chinese produce. By the end of  $6^{\text{th}}$  century, tea had become so popular that it was no longer considered a medicinal drink but a refreshing beverage. In Sung Dynasty during 960 -1127 AD, regular trade in tea was permitted by the government across borders to Mongolia and Tibet. China started supplying tea to Russia towards the end of  $17^{\text{th}}$  century and the first tea to reach Europe came by the way of Dutch To Holland in 1610 (Ukers, 1935) and later spread to other parts of the world.

Tea cultivation was first introduced in Batum (Republic of Georgia), neighboring Eastern Black sea region of Turkey by Russians in the last quarter of 19<sup>th</sup> century after importing seedlings from China. They had successfully established commercial tea planting here and the industry had slowly expanded with opening of large acreage of lands for the purpose. Since Russians had successfully introduced tea in Batum, it was felt that tea cultivation must also be introduced in Turkey. Therefore, under the directions of the state, the Department of Agriculture selected Bursa (an important historical city of Ottoman empire surrounded with hills and large number of natural springs & forests), to evaluate the feasibility of tea cultivation by importing seedlings from Japan and China in 1888 (Tekeli, 1976). Soon it was discovered that the tea plants needed very specific environmental conditions to produce an economic crop, which led to the identification that tea cultivation was not feasible in Bursa. Broadly identifying the un-suitability of ecology of Bursa, the idea of tea cultivation in Turkey was dropped for 26 years, until 1918; when the government secured the services of Mr. Ali Riza Erten, (Regional Director Agriculture -Black sea region & a famous botanist from Mardin province). He was assigned the duty to discover feasibility of some other suitable locations with in Turkey for tea cultivation. He made extensive visits of Rize, Artvin, Ardahan (Turkey) and Batum (Georgia) in the Eastern Black Sea region (Kakuzu, 1944; Kacar, 1986a & b). Araklı, Ardesen, and Pazar (Rize province) and Hopa and Sarp (Artvin province) are separated from Central and Eastern Anatolia by mountain ranges ascending immediately behind a narrow coastal strip and lie at latitude of  $41 - 42^{\circ} 15^{\circ}$ N and longitude of  $40 - 43^{\circ}$ 

30'E with annual average rainfall of 2114.66 mm and temperature range of -13 - to 20.5°C (Anonymous, 2005) and Batum lying at latitude of 42 - 43° 15'N and longitude of 43° 30'E with annual rainfall of 2233 mm and temperature range of -5.6 to 26.1°C (Othieno, 1992). He made a detailed analysis of the soil and climatic conditions of these areas, to know the feasibility for economic and successful cultivation of crop and found that the ecology of Rize, Artvin and Ardahan was very similar to Batum. He observed tea, orange and bamboo gardens in the Batum. He reported economic feasibility of tea cultivation at Rize and surroundings in his report under the title 'Şimali Şarki Anadolu ve Kafkasyada Tetkikatı Ziraiye' (Agricultural applications in the North Eastern Anatolia & Caucasus) (Hatipoğlu, 1934 a & b; Arar, 1969).

Nothing was actually done about the matter and the report was shelved, because of the post-world war I reconstruction activities, which had adversely affected the economy of the Eastern Black sea region. Here, the life is very difficult due to continuous rainy season and the people have to live with sea on one side and mountains on the other throughout the year. The developing tea industry in Batum had provided employment opportunities to the local people in its tea gardens and fruit orchards over years not only on actual estates but also in many subsidiary occupations. This was of enormous benefit to the people of Eastern black sea region with very meager resources. Accession of Batum to Georgia or Soviet Union in 1920 and post World War 1 activities showed up in the form of economic difficulties to the local people; as they were no longer allowed to go to (now iron curtained) Batum. This resulted in immigration of large number of people to other big cities with in Turkey for better earning (Kakuzu, 1944; Kacar, 1986a). Foreseeing negative impacts of immigration, government intervened through Act No. 407 of 1924 to encourage cultivation of hazlenut, orange, lemon and tea in Rize and surroundings. The farmers were motivated for tea cultivation by waiving land tax for 10 years. Moreover, they were provided free seedlings to establish hazlenut, orange, lemon and tea gardens on their lands from newly established (1924) "Orchard Culture Station (Bahçe Kültür İstasyonu)" besides cultivating traditional crops like Wheat, Corn etc., (Kacar, 1986a & b).

Mr. Zihni Derin, General Inspector of Agriculture (Ziraat Umum Müfettişi), was directed to convince, encourage and motivate local people to establish tea and fruit gardens on their lands and stop immigration. He made strenuous efforts and was a successful to a large extent. He sent government officials to Batum (Georgia) in 1924 to purchase tea seeds and seedlings for cultivation in Rize. Resultantly, Central Tea Nursery (Merkez Çay Fidanligi) established during 1924 distributed about 50,000 tea seedlings among local farmers to raise tea plantations (Hatipoğlu, 1934a & b; Arar, 1969).

Soon it was found that tea yield was greatly influenced by the weather, altitude, harvesting and pruning techniques, programmed plucking, manuring, regulation of shade and use of pesticides for economic production. Moreover, the tea crop has a high moisture level at harvesting and as such decomposes in a relatively short time; therefore it must be processed in a short time. However, nothing was available to process it. Any delay in the processing of leaves caused potential drop in the quality and sales value. Moreover, there was no guarantee of the purchase of produce and the farmers had no resource to sell or process it (Tarkan, 1973; Kacar, 1986a & b).

The work was started with great enthusiasm; however due to above mentioned constraints the farmers, who wanted to continue, could not be convinced and saw uncertainty in tea business. They did not see ready cash in tea farming compared to corn farming, which was more profitable since it could be sold easily. All these added in reduction of the interest with in four years of start (1928) when Mr. Zihni Derin was transferred to Istanbul. Tea farming became one of the most unattractive professions of the time and the tea farmers diverted to fruit crops like hazel nut, orange, lemon etc., mentioned in the Act No. 407 of 1924. The farmers who had remained un-convinced about tea started up-rooting tea plants as they were not ready to block their money and land for five years with an activity, which was seemingly un-economical. Eventually, tea plantations were left only on the Central Tea Nursery at Rize (Arar, 1969; Tarkan, 1973).

This was a serious problem, realizing the situation on the ground, the facilities granted under Act No. 407 were extended for 3 years and another act No. 1029 was issued to improve the drawbacks in the previous act. Furthermore, to encourage tea farming 200,849 tea seedlings were distributed free of cost among the farmers once again under the direction of the parliament (Official Gazette No. 596, Republic of Turkey, 1927). As was expected all these efforts were futile and failed, because nothing was done to solve the basic problems (Hatipoğlu, 1934a & b; Kacar, 1986a & b).

After a lapse of six years (1933), the department of agriculture sought the services of a Swiss Dr. Tangwell a former tea expert at Java (East Indies- Indonesia) to point out suitable sites in the Eastern Black sea region, where it was thought that the plants would flourish. His recommendations were not significantly different from those of Mr. Ali Riza Erten and were also shelved (Hatipoğlu, 1934a).

After a further delay of two years (1935), a scientific team was deputed under the supervision of Agricultural member (Ziraat Vekil) of the parliament Prof. Dr. Muhlis Erkmen to evaluate the potentials and prospects of tea cultivation in the area. The team recommended setting up of tea processing industry and guarantee of the purchase of produce, if the government wanted to make the project viable. Prof. Muhlis Erkmen, himself purchased 2,000 kg seeds from Batum (Republic of Georgia) and cultivated them on 10.8 hectares of land to create a tea garden in the area. He also used his influence on local farmers and

persuaded them to cultivate tea over 12.0 hectares of land (Kakuzu, 1944; Kalender, 1976).

All these efforts were slow, realizing the services of Mr. Zihni Derin for tea cultivation, the government decided to re-depute him in the area. He was enthusiast and helped to boost up tea cultivation once again. His efforts resulted in the purchase of 30,000 kg seeds (during, 1938) from Batum, which were cultivated in 72 villages (of seven provinces of Eastern Black sea region) resulting in creation of 300 village tea nurseries. His efforts and the influence of Prof. Erkmen gave a boost to tea cultivation in the area once again (Kacar, 1986a & b).

By the end of 1939, tea was cultivated over 155.0 hectares by 1324 farmers, which increased to 1782.3 hectares by 9736 farmers in 1945 (Table I). By that time the technical support from the department of Agriculture had improved a lot.

Government after realizing the problems of farmers started taking some practical steps and decided to extend agricultural credits to farmers through act No. 3788 of 1940. The farmers were guaranteed the purchase of produce and 15 km wide strip from Fatsa (Ordu province) through Arakli (Trabzon province) to Sarp bordering Batum was earmarked as tea cultivation area. Later years proved that strip from Sarp to Araklı was best for 1<sup>st</sup> grade tea production and the adjoining area from Araklı to Fatsa was suitable for 2<sup>nd</sup> grade tea production (Kalender, 1976; Kacar, 1986). Section 4 of this act asked the government to distribute seeds, seedlings, chemical fertilizers and other agricultural inputs free of cost for first five years or interest free credit to the maximum of 20 liras, to those having 0.05 hectare of land or five hundred trees. Similarly, a credit scheme was extended by the "Ziraat Bankasi" to the local farmers. These efforts resulted in positive increase in the tea farming (Tekeli, 1946; Tarkan, 1973; Tufan, 1988).

This act has its importance towards tea marketing as well. Collection and purchase of raw fresh tea leaves, construction of factories, processing, packaging and sale were assigned to State Agricultural Management Organization (Devlet Ziraat İşletme Kurumu - DZIK). This act authorized the state to act as a single buyer of tea and large number of tea purchase depots was opened in the area helping the farmers to get out of un-certainty regarding sales of their produce. All these lead to better harvesting, processing and packaging of the end produce (Tekeli, 1946; Tekeli, 1962; Ozyurt, 1987).

The start of World War II was a blessing in disguise for the Turkish tea industry. Production of tea had become very important, because of a sudden fall in tea imports from abroad. The government concentrated on development of local tea industry and sharp increase in production in spite of international problems was very evident -181 kg dried tea leaves were processed during 1939 and 93,067 kg during 1946 using local crude methods in locally manufactured Zihni Derin tea processing plants (Table II- Açil, 1957; Ozyurt, 1985, 87).

After the establishment of first tea processing factory at Fener in Rize province (East Black Sea Region) under the direct supervision of the cabinet, anew era started: 98 tons leaves were processed during 1947, which increased to 8644 tons during 1962 (Table III) showing a positive impact on tea farming. This also resulted in increased involvement of farmers (79i133) and sown area (15944.70 hectares) as well in 1962 compared to 1947. This was very encouraging; the farmers could sell their produce confidently without fear of the loss of quality at premium price. This resulted in fast spreading of tea cultivation in the 750 km<sup>2</sup> earmarked area extending from Araklı (in between Trabzon & Rize provinces) to Sarp (of Artvin province) bordering Batum-Republic of Georgia (Tekeli, 1946; Tekeli, 1962). In order to maintain the pace of development in the tea sector, some more acts with increased facilities and more credit to the farmers, were passed during 1950, 1951, 1953 and 1956. Thus, it was possible to establish tea gardens over 7184 hectares of land during 1955 with the provision of credit amounting to 7 million TL (Official Gazette of the Republic of Turkey No. 7748, 1951, Official Gazette of the Republic of Turkey No. 8458, 1953). These increased to 15944.7 hectares during 1962 with no tea imports thereafter (Table III).

Thereafter, all extensions in tea production area were made in line with section 2 of the act no 6754 of 1956. The act no. 6754 of 1956 allowed farmers to get a credit of 35 to 350 million liras for the establishment of new tea gardens. Moreover, water channels were developed extensively to avoid the loss of irrigation water. Section 8 of this act gave the right of partnership to land less skilled persons to create tea gardens, which could be registered just like land ownership deed before the government. Section 9 defined conditions of grant of license to the farmers for production of tea by making it mandatory that once a land was registered for tea cultivation, the land could not be used for any other purpose except that defined there in the agreement, even after the change of ownership of land under any circumstances (Ozvurt, 1985, 87: Official Gazette of the Republic of Turkey No. 8458, 1953; Papers of the Çaykur Tarım Dairesi Başkanlığı kayıtları, 1938 - 1987).

A total of 6 tea purchasing depots during 1947 established under act No. 3788 of 1940 had increased to 864 during 1965. Tea was cultivated over 2525.4 hectares in 1947 by 11650 farmers, which increased to 15944.70 hectares and 79,133.00 farmers by the end of 1962, 3.919 tons of tea was imported during 1960 (Table IV) and thereafter, Turkey became self sufficient in tea production. All these confidence developing measures illustrated the historical developments in the Turkish tea industry. These activities increased margin of profit in favor of farmers and made tea cultivation as one of the most trusted professions bringing sweeping and revolutionary changes in local tea trade and crop growing industry (Eraktan, 1983; Aksoy, 1984). No tea was imported during 1961 - 62. Tea growing industry, which had remained insignificant for a long time

Table I. Increase in number of tea farmers and areaunder tea cultivation from 1924 to 1965

Years	Number of regular farmers	Area in hectares of regular
1924-38	-	2.0
1939	1324	155.0
1940	5052	730.1
1945	9736	1782.3
1950	11976	2642.3
1955	45342	7334.7
1960	63197	13488.0
1965	94273	19601.8
1973*	117349	40486.5
1975	127732	50287.6
1980	178805	53811.3
1985	190620	66946.7
1990	202904	90575.0
1995	201657	76609.0
2000	204491	76748.4
2003	203318	76639.2

Source: Açıl 1957, records of Çaykur (Tea Board) and Ministry of Agriculture 1924-2003.

\* Data for 1970 could not be traced out of the records of the Çaykur therefore the data after 1965 starts from 1973.

Table II. Tea processing during 1939 – 1946 at Rize inlocal processing plants

Year	Total cultivated	Number area farmers	green Dried processed tea	
	(hectares)	ureu hurmens	leaves (kg)	(Kg)
1939	155.00	1,324.00	815.00	181.00
1940	734.30	5,052.00	855.00	191.00
1941	892.30	5,395.00	2,700.00	600.00
1942	981.20	5,853.00	32,916.00	7,001.00
1943	1269.60	7,588.00	68,346.00	16,792.00
1944	1552.10	8,776.00	160,224.00	38,849.00
1945	1782.30	9,736.00	225,088.00	53,945.00
1946	2067.20	11,092.00	382,316.00	93,067.00

Source: records of Caykur (Tea Board) and Ministry of Agriculture

Table III. Tea statistics of Turkey from 1947-62

Years	Sown area	Number	of Green leaves	Processed	Imports
	hectares	farmers	(Ton)	tea (Ton)	(Ton)
1947	2525.40	11,650.00	411.00	98.00	
1948	2575.10	11,909.00	647.00	150.00	1,059.00
1949	2582.40	11,866.00	679.00	159.00	1,336.00
1950	2642.30	11,976.00	884.00	208.00	1,744.00
1951	2858.70	16,880.00	1,444.00	332.00	2,503.00
1952	3911.40	30,962.00	1,877.00	424.00	2,016.00
1953	4970.70	34,684.00	2,277.00	513.00	2,763.00
1954	6404.90	43,565.00	3,215.00	719.00	2,770.00
1955	7184.20	45,342.00	5,438.00	1,191.00	2,450.00
1956	8271.90	58,146.00	6,997.00	1,435.00	2,313.00
1957	10208.30	58,843.00	10,976.00	2,442.00	3,984.00
1958	11707.90	59,076.00	14,365.00	3,551.00	4,156.00
1959	11876.20	61,625.00	18,417.00	4,118.00	5,189.00
1960	13488.00	63,497.00	25,954.00	5,710.00	3,919.00
1961	14951.80	68,188.00	24,230.00	5,673.00	
1962	15944.70	79,133.00	37,540.00	8,644.00	

Source: records of Çaykur (Tea Board) and Ministry of Agriculture

in spite of the lavish support by the government, was flourishing now. Tea was cultivated over 17535.2 ha in 1963 by 85365 farmers. Turkey exported 141 ton tea in 1963 by 85365 farmers, for the first time. This increased to

36184 hectares cultivated land during 1972 (Table IV-Korkmaz, 1977). Turkey exported fairly large quantities of tea between 1964 and 1965 but exports came to a stand still, because the local tea consumption had increased and the tea was needed for Turkish own consumption (Van de Meeberg, 1992).

Turkish tea had begun to appear in the international literature as well. However, tea plantation industry and processing were facing number of problems including production of tea that was not uniform in taste and quality. Local officials lacked sufficient skills to handle these problems. Therefore, it was felt necessary to seek the help and recommendations of foreign experts in the field by the Representative of monopoly controls and Directorate General of State monopoly controls (Inhisarlar Vekâleti & Türk Devlet İnhisarlar Umum Müdürlüğü), resulting M/s J. Goldschmidt, Director processing of Zonon N.V., Amsterdam and a tea expert, Dr. Ir. T. Visser, Horticultural Research Institute, Wageningen, formerly employed at the Ceylon tea Research Institute, Ir. J. Warkhoven, Royal tropic Institute, Amsterdam formerly consultant of Tea technology and agricultural Müşavir in Indonesia, Ir. J. Van Der Vis, Agronomist and N.V. Deli, Maatschappij, Amsterdam, who visited the area from 8 - 23 May 1963. They recommended that the future tea plucking should be made from actively growing bud containing 2 leaves and an unopened bud to have the best compromise between the high yield and quality. This helped to improve production as the removal of upper section of a growing stem results in removal of the apical dominance and activates one or more buds in the lower part of the stem. They found that local people were careless and even plucked lower leaves for monetary gains, which hampered the quality of the tea. The tea made from leaves at each position down the stem showed a progressive deterioration in taste, because of increased fiber downward and increase in size of leaves and the farmers were suggested to stop this practice. Their recommendations also included solutions to weed infestation, insect pests, appropriate fertilizing and pruning to increase the life expectancy of tea plantations. They emphasized that the tea processing factories should purchase the tea (leaves) according to the quality of plucked leaves to maintain a uniform standard (Tarkan, 1973; Tekeli, 1976; Table IV. Tea statisitics of 1963-72

Years	Area sow	n Number	of Green tea lea	ves Processed
	(Dekar)	farmers	(Tons)	tea (Tons)
1963	17535.20	85,365.00	45,508.00	10,133.00
1964	19028.10	91,254.00	45,320.00	10,620.00
1965	19601.80	94,273.00	59,620.00	13,650.00
1966	21774.50	100,780.00	101,097.00	22,241.00
1967	23467.70	106,466.00	100,502.00	22,190.00
1968	26120.50	117,393.00	126,917.00	27,751.00
1969	27311.00	125,114.00	160,141.00	34,530.00
1970	27880.30	129,620.00	153,330.00	33,431.00
1971	28551.30	135,559.00	173,347.00	35,842.00
1972	36184.00	137,388.00	216,718.00	40,498.00

Source: records of aykur (Tea Board) and Ministry of Agriculture

Tufan, 1988).

In order to make tea cultivation more viable from the social and economic point of view new arrangements were introduced through Act No. 1497 issued on 6 December 1971 [popularly known as known as "Cay Kurumu Kanunu" (Tea Board Act)] by envisaging better services parallel to growth through establishment of ÇAYKUR (Tea Board), which began to function fully in 1973. The board had full monopoly to deal with tea business right from farm to processing factories. The factories were made responsible to declare number of farmers associated with them as per section 4 of act no. 1497 of 1971 (Kalender, 1976). This is counted as the most important development in the history of Turkish tea and resulted in tea cultivation over 36184.0 hectares during 1972 by 137,388 farmers (Table IV).

Another important step towards tea production was issuing of license to un-licensed tea producers with certain relief during 1974 as per decision no. 7/8196. As a result, a lot of un-declared lands were added to the legalized lands for tea cultivation. Though decision no 7/8196 of 1979, any further addition to tea cultivation areas was stopped. However, illegal extension in the area and tea cultivation continued to increase, as the farmers had fully realized the economic importance of tea. They could not be checked due to sociopolitical reasons. Instead, they were spotted and regularized under law no. 6/908 of 21.03.1968. Continuous grant of license to unregistered producers after a general pardon resulted in beefing up the area under tea cultivation. Foreseeing the situation, Government issued various directives during 1979 - 82 to bar further establishing of tea gardens (Kalender, 1976; Eraktan, 1983; Ozyurt, 1985).

This act was very encouraging and was named "Ihya". The producers had various methods of disposing off their crops and they were free to choose, whichever method was likely to be the most rewarding. They had opportunity of forward sales, selling part of their crops at a negotiated price. This way, large number of underdeveloped and uncultivated lands were brought under tea cultivation. These legislations had very positive effects on socioeconomic conditions of farmers (Tufan, 1988). This situation demanded handling of the matter in another way. Now government made it mandatory for every tea farmer vide decision no. 8/2751 of 1981 to show up with 100 kg of leaves ha<sup>-1</sup> day<sup>-1</sup>. This prohibited illegal tea farmers and those who had declared less land over the actual. During 1982, government passed another act no 2640 giving general pardons to illegal producers of tea once again and asked them to regularize their tea farming activity by registering their lands. Under this act, unlicensed tea gardeners were to be fined with 7,500 TL along with uprooting of their gardens (Ozyurt, 1985; Tufan, 1988).

This pardon resulted in increase of land to 66946.7 hectares during 1985. Most of this increase was due to previously un-declared cultivated land, which was declared and registered after pardon (Table I). A perusal of all tables show increase in the number of tea farmers and areas from 1924 - 2003. Table I further, shows maximum of 2 ha of tea land in pre 1939 period with no regular farmer (Açil, 1957), which increased to 76639.2 hectares in 2003.

Government monopoly on tea production, processing and marketing was withdrawn during December 1984 vide Act No. 3092 issued on 19 December 1984. The tea processing industry, which started with establishment of a single factory during 1947 with capability of 60 ton leaves per day and 32 factories with capability of processing 2420 ton leaves per day during 1973 (the year Çaykur was established) had increased to processing capacity of 6000 ton leaves per day during 1985 from state owned 45 factories. The tea was cultivated over 40.4 thousand hectares of land (Çaykur yıllık faaliyet raporları, 1973 -2003).

The government allowed private firms to procure process and market tea. Not forgetting the courage and determination to succeed under terrible conditions, the tea plantation industry had become vital part of the economy of Eastern Black Sea region by now (Ozyurt, 1987).

According to section 2, for new tea garden the producers had to apply for license to Caykur (Tea Board) within one year to legalize it under authority by the cabinet (Official Gazette of the Republic of turkey No. 18852, 1985). This facilitated tea cultivation and large majority of people applied for license. In order to restrict the facility, section 2 of this act was cancelled vide no 18897 published in official gazette of 1985. Turkey's tea crop amounted to about 140, 000 m tons during 1986 of which only a small percentage could be exported (Table V- Van de Meeberg. 1992). Turkey exported 25083 tons tea during 1989 (Table VI) of which 20378 m tons went to USSR and the rest to other countries. However, Chernobyl accident had negative impacts on the tea trade and Turkish tea was withdrawn from the world market, because it was feared that the tea was contaminated by radioactive materials and was not permitted for import in some countries (specific limitations on contamination by nuclear radiation set by EEC are 600 Bq kg<sup>-1</sup> for Ceaesium 134 & 137) (Van de Meeberg, 1992).

It was realized during 1986, that the pace of increase in tea cultivation areas could result in piling up of tea stocks such that tea trade would find great difficulties in disposing of supplies in the most profitable manner. Moreover, a general misuse of the credits had widespread. Therefore, it

Table V. Production of dried tea (thousand Tons) in Turkey from 1985-98

Years	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Çaykur	133	140	120	121	108	96	104	124	107	117	83	100	101	130	153	91	95	94	91
Private sector	5	10	22	42	29	38	33	40	67	45	83	41	48	20	47	54	65	61	64
Total	138	150	142	163	137	134	137	164	174	162	166	141	149	150	200	145	160	155	155

Source: records of Çaykur (Tea Board) and Ministry of Agriculture

Table VI. Total tea exports of tea from Turkey during1989-2003

Years	Packed	tea Unpacked	tea Total (Ton)	Price		
	(Ton)	(Ton)		(thousand \$)		
1989	20.582	4.502	25.083	33.381		
1990	21.432	6.751	28.183	37.876		
1991	648	1.200	1.848	2.907		
1992	825	7.853	8.768	10.892		
1993	1.763	32.726	34.489	30.602		
1994	753	3.498	4.251	4.201		
1995	760	558	1.318	1.762		
1996	835	3.912	4.747	4.122		
1997	1.502	14.120	15.622	11.568		
1998	983	15.985	16.968	12.418		
1999	915	3.092	4.006	3.145		
2000	1.166	5.364	6.530	4.541		
2001	1.351	3.419	4.771	3.680		
2002	1.630	3.532	5.161	4.089		
2003	1.892	5.151	7.043	7.965		

Source: records of Çaykur (Tea Board) and Ministry of Agriculture and FAO

was felt necessary to restrict tea plantation industry to the licensed lands by issuing binding regulations. Consequently; permission to allow setting up new gardens was stopped until 1989 as per decision of the economic affairs coordination committee vide no 87/10 dated 18/6/1987. The defaulters were penalized in line with the framework of new law. In spite of restrictions the farmers continued to cultivate tea at un-registered and unlicensed places and over production were becoming burden on the national exchequer (Ozyurt, 1987; Tufan, 1988).

Another important development was the issuance of Tea Standards Act No. TSE 4600 of  $26^{th}$  June 1986, which implied to follow ISO, 3720 standards (Black tea- definition & basic requirements) as a minimum export standard for black tea. It was undertaken not to supply substandard tea to the market. It was just a starting point and needed upgrading. Therefore, after 10 years this was replaced with Turkish Food Code- Black tea Notification No. 96 - 10 under act No. 22846 of December 13, 1996. The producers were obliged to produce and pack tea as per standards defined therein the notification (Aksoy, 1984; Tufan, 1988).

Another notification No. 22327 of June 1995 made it compulsory for the tea processing units/factories to get their brand, registered with the Ministry of Agriculture and Rural Development and made it compulsory for the declaration of contents on the packages. The producers or processors were bound to produce their product under license from the Ministry. They were also made responsible to get a trade mark certificate if they intended to produce their product under a specific name. However, this could not be implemented fully. All state owned factories (under Tea Board) had these certificates and license but most of the private enterprises successfully evaded payment of taxes using their socio-political links (Eraktan, 1983; Aksoy, 1984; Ozyurt, 1985, 87).

The Çaykur produces 65% of tea in Turkey, which has has 45 factories. The rest of tea (35%) is processed by the

private sector, which has 230 tea processing units. Both use Orthodox, CTC and Rotervane processing methods (Çaykur Yıllık Faaliyet Raporları, 1973 - 2003).

Global tea production remained around 3 million tones in recent years. Countries like India, China, Sri Lanka and Kenya are the main contributors to the world tea production and their share to global production is 826, 721, 310, and 28.7 metric tons (MT), respectively (FAO, 2003).

While the production of dried tea was below 25 MT in 1950's, this figure reached 150 in 2002 (FAO, 2003). Caykur is also responsible for exports of tea. Exports of tea from Turkey in recent years remained significant contributor to the foreign exchange. Tea from Turkey is exported both in bulk and tea bags. During 2002, of the total tea export 38% was in packaged form and the remaining 62% in bulk. In recent years, exports of tea bags are gaining popularity. The main destinations of Turkish tea are the countries of European Union, Commonwealth of independent states (CIS- former Soviet states), India and the USA. Among the EU countries, Germany and the Netherlands; while among the CIS Countries, Uzbekistan and Kyrgyzstan are the most important markets. A total of 5104 MT of tea was exported from Turkey during 2002 (Çaykur Yıllık Faaliyet Raporları, 1973 - 2003).

At the start of tea cultivation in Turkey, the primary goal was to meet the domestic demand only. It looked very difficult to introduce the new crop in the area and it was popularly understood that the effort was going to end up in fiasco. However, in a relatively brief space of time, the tea trade and industry have undergone sweeping changes due to the consistence efforts. Today, Turkey holds a significant place among the world's largest tea producers and ranks sixth in world production of tea (FAO, 2003) such that the farmers have no reservations about tea cultivation.

## REFERENCES

- Açil, F., 1957. Türkiye Çay Işletmeleri. Anakara Üniversitesi Yayınlar: 129 Çalışmalar: 79. Ankara University Basımevi, Ankara: 6 – 8
- Aksoy, S., 1984. Tarım Hukuku, Ankara Üniversity Ziraat Fak. Yayınlar: 907. Ders Kitap. 254, Pp: 152–5. Ankara Üniv. Basımevi, Ankara,
- Anonymous, 2005. State Meteorological Institute, Turkey
- Arar, R., 1969. Türkiye'de Çaycılık ve Turistik Sosyal Kültürel Ekonomik Yönüyle Rize. Çakır Matbaası. Istanbul, Pp: 154–9. (Tea in Turkey & its relationship with touristic, cultural & economic activities in Rize, Çakır Press, Istanbul: 154 - 159)
- Benerjee, B., 1988. Cup that Cheers. Nature, 580
- Benerjee, B., 1992. Botanical classification of tea. *In*: Wilson, K.C. and M.N. Clifford (eds.), *Tea Cultivation to Consumption*, Pp: 25–51. Chapman and Hall London
- Çaykur Tarım Dairesi Başkanlığı kayıtları, 1938 1987. Papers of the Directorate of Agriculture, Tea Section, 1938 1987
- Çaykur Yıllık Faaliyet Raporları, 1973 1980. Annual Activity Report of the Tea Board, 1973 - 1980)
- Eraktan, G., 1983. Tarım Politikası- II, Ankara Üniversity Ziraat Fakulty, Taksir No. 112. Ankara, Pp: 12–7. (Agricultural policies- II. Publication of the Faculty of Agriculture University of Ankara, Press No. 112, University of Ankara Press, Ankara, Turkey: 12 - 17)
- FAO, 2003. Food and Agriculture Organisation of the United Nations
- FAO, 2004. Food and Agriculture Organisation of the United Nations

- Hatipoğlu, Ş.R., 1934a. Kendimize yeten Ziraat. Ziraat Gazetesi. Cilt 1. Sayı, 9: 265. (Self sufficiency in our agriculture. Agricultural Gazette. Vol: 1. No. 9: 265)
- Hatipoğlu, Ş.R., 1934b. Çeşitli Ziraat. Ziraat Gazetesi. Cilt 1. Sayı, 8: 233. (Diversified agriculture. Agricultural Gazette. Vol: 1. No. 8: 233)
- Kacar, B., 1986a. Çayın Tarihi. I. Tarih ve Toplum. Aylık Ansiklopedik Dergi. İletişim Yayınları, P: 41. (History of tea. I. History & society. Monthly Encyclopedic Journal. Extension Publication: 41)
- Kacar, B., 1986b. *Çayın Tarihi. II. Tarih ve Toplum. Aylık Ansiklopedik Dergi. İletişim Yayınları*, P: 31. (History of tea. II. History and society. Monthly Encyclopedic Journal. Extension Publication: 31)
- Kakuzu, O., 1944. Çayname. (Çeviren: A.S. Delilbaşı) Remzi Kitabevi. Istanbul, Pp: 17–8. (Tea chronicles. (Translator: A.S. Delilbaşı). Remzi Bookhouse. Istanbul, 17-18)
- Kalender, K., 1976. Türkiye'de Çay. Üretimi ve Sanayı Mülkiyeliler Birliği dergisi. Cilt VI. Sayı, P: 43. Tisa Matbaası. Ankara: 21 - 22. (Tea in Turkey. Journal of the Association of Proprietors of Tea Producing and Processing. Vol VI. No. 43. Tisa Press, Ankara)
- Korkmaz, T., 1977. Madde Araştırması: Çay. T.C. Ticaret Bakanlığı. DışTicaret. Genel Sekreterlığı değerlendirme Müdülüğü, P: 21. (Evaluation of laws: Tea. Directorate of evaluation, General Secretariat of Foreign Trade, Ministry of Trade, Republic of Turkey: 21)

Official Gazette of the Republic of Turkey, 1927. Notification No. 596

Official Gazette of the Republic of Turkey, 1951. Notification No: 7748

Official Gazette of the Republic of Turkey, 1953. Notification No: 8458

Official Gazette of the Republic of Turkey, 1985. Notification No: 18852

- Othieno, C.O., 1992. Soils. In: Wilson, K.C. and M.N. Clifford (eds.), Tea Cultivation to Consumption, Pp: 137-172. Chapman and Hall, London
- Ozyurt, H., 1985. Türkiyede çay tekelinin kaldırımasınından sonra bekelenen gelişmeler. Çay üretimi, işlenmesi ve pazarlaması Semineri. *Fakulteler Matbaası. Istanbul*, Pp: 106–11, (Expected Developments after the withdrawal of State monopoly in tea in Turkey. Seminar on Tea production, processing and marketing. Fakülteler Press. Istanbul. 106-111, 134)

- Ozyurt, H., 1987. Çay ekonomisi. Karadeniz Teknik Üniversity Genel Yayın No. 117. Meslek Yüksek Okulu. Yayın No. 5. *KTU. Basımevi. Trabzon*, Pp: 4–302. (Tea Economy. Blacksea Technical University General Publication No. 5 of the Technical High School. Black sea Technical University Press, Trabzon 4-302)
- Tarkan, T., 1973. Türkiye'de çay zıraatı ve endüsterisi. Atatürk Üniversity Yayınları. No. 195. Edebiyat Fakültesi yayınları No. 41. yardımcı ders kitap serisi No. 1. Sevinç Matbaası Ankara, Pp: 10–5. (Tea Agriculture and Industry in Turkey. Ataturk University Publiction No. 195. Publication No. 195 of the Faculty of Letters. Text book series No.1. Sevinç. Publications, Ankara, 10 - 15)
- Tekeli, S.T., 1946. Rize'de çay yetiştirilmesi ve rize çaylar üzerinde araştırmalar. Ankara Yüksek Ziraat Enstitüüsü Dergisi. Cilt 5. sayı 2 (10). Ayrı Basım: 349. (Tea cultivation in Turkey and a study of Rize tea. J. Higher Agric. Institute, 10: 349
- Tekeli, S.T., 1962. Çay teknolojisi (Çay işleme kitabi) Ankara Üniversity Ziraat Fakulty Yayınları, P: 190 (Tea technology (Tea processing book) University of Ankara, Faculty of Agriculture Publication No. 190. Univ of Ankara Press, Ankara, Turkey
- Tekeli, S.T., 1976. Çay yetiştirme işleme pazarlama. Dönüm Yayınlar, 5. Ankara: 8, 90–193. (Tea cultivation, processing and marketing) Dönüm publications: 5. Ankara 8, 90-193)
- Tufan, A., 1988. Türkiye Ekonomisinin Kaynakları ve genel ekonomik gelişmesürecinde tarım kesiminin durumu. Ankara University Ziraat Fakulty Yayınları: 1102. Bilimsel Araştırma ve incelenmeler, P: 600. Ankara University Ziraat Fakulty BasımÜnitesi. Ankara. 70. (Sources of Turkish economy and the status of agriculture during the period of general economic development. Faculty of Agriculture, University of Ankara Press. Ankara, Turkey. 70)
- Ukers, W.H., 1935. Dutch East Indies in the All about Tea. Tea Coffee Trade J., 1: 27
- Van de Meeberg, R., 1992. The world trade in Tea. In: Wilson, K.C. and M.N. Clifford (eds.), Tea Cultivation to Consumption, Pp: 649–87. Chapman and Hall, London
- Weatherstone, J., 1992. Historical Introduction. In: Wilson, K.C. and M.N. Clifford (eds.), Tea Cultivation to Consumption, Pp: 1–24. Chapman and Hall, London

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