

DEVELOPMENT OF BEET SUGAR INDUSTRIES IN THE WORLD AND THE EXAMPLE OF ALPULLU SUGAR FACTORY

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Abstract

Andraeas Sigismond Marggraf discovered sugar from beet, instead of historically important cane. Although commercial potential; beet sugar did not attract attention of entrepreneurs for fifty years, up until to Napoleonic Wars. But later, due to the war and commerce difficulties, beet sugar production was rapidly spread in Continental Europe. After France, Germany and Austria, beet sugar crossed Atlantic and reached USA. From the middle of 19th century up to 1930's, competition in between beet and cane sugar continuously lasted. In this fierce competition, sometimes beet and sometimes cane became successful. As to Turkey, newly establishing sugar industry was founded over sugar beet, because of climatic and geographic conditions. Turkish government enacted supporting laws to promote new entrepreneurs to sugar industry. With encouraging attitude of government, Mehmet Şakir Kesebir and his friends founded a company to build and manage Alpullu Sugar Factory in 1925. Factory was established with German technology. Thracian peasants were educated for cultivation of sugar beet to supply raw material needs. This new but profitable agriculture type was quickly become popular among Thracian villagers. On the other hand, factory management tried to attain a strong place in local market. After ten years operation, factory was nationalized by establishment of Turkish Sugar Industries Incorporation.

Keywords: Andraeas Sigismond Marggraf, Beet Sugar, Alpullu Sugar Factory, Mehmet Şakir Kesebir, Sugar Industry, New Agriculture Type.

PANCAR ŞEKERİ SANAYİLERİNİN DÜNYADAKİ GELİŞİMİ VE ALPULLU ŞEKER FABRİKASI ÖRNEĞİ

Öz

Tarihsel olarak önemli olan kamış yerine, Andraeas Sigismond Marggraf pancardan şekeri keşfetti. Ticari potansiyeline rağmen Napolyon Savaşlarına kadar, pancar şekeri elli yıl boyunca girişimcilerin dikkatini çekmedi. Fakat sonrasında savaş ve ticaret zorlukları sebebiyle, pancar şekeri üretimi Kıta Avrupa'sında hızla yayıldı. Fransa, Almanya ve Avusturya'dan sonra, pancar şekeri Atlantik'i aşip ABD'ye ulaştı. 19. Yüzyıldan 1930'lara

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kadar, pancar ve kamış şekeri arasındaki rekabet sürekli devam etti. Bu şiddetli rekabette bazen pancar ve bazen ise kamış başarılı oldu. Türkiye'ye gelince iklimsel ve coğrafi şartlar dolayısıyla, yeni kurulan şeker sanayisi şeker pancarı üzerine inşa edildi. Türk hükümeti yeni girişimcileri şeker sanayisine çekmek için, destekleyici kanunları yürürlüğe soktu. Hükümetin cesaretlendirici bu tavrı sonrası, Mehmet Şakir Kesebir ve arkadaşları Alpullu Şeker Fabrikasını inşa etmek ve işletmek için 1925'te bir şirket kurdular. Fabrika Alman teknolojisiyle inşa edildi. Trakyalı çiftçiler hammadde ihtiyacını sağlamak için, şeker pancarı yetiştirilmesi için eğitildiler. Bu yeni fakat kârlı olan ziraat tipi, Trakya köylüleri arasında hızlıca popüler oldu. Diğer yandan fabrika yönetimi yerel pazarda güçlü bir yer edinmeye çalıştı. On yıllık işletme sonrası, Türkiye Şeker Fabrikaları AŞ'nin kuruluşuyla fabrika devletleştirildi.

Anahtar Sözcükler: *Andraeas Sigismund Marggraf, Pancar Şekeri, Alpullu Şeker Fabrikası, Mehmet Şakir Kesebir, Şeker Sanayi, Yeni Ziraat Tipi.*

Introduction

Andraeas Sigismund Marggraf discovered beet sugar in 1747. Marggraf was an eminent chemist that he searched a large numbers of plants to ascertain their sugar contents. In his experiment; he sliced and dried plants, then he milled them to powder. He exhausted these powders with dilute alcohol. At the end of the experiment, processed powders crystallized out to sugar. Although his methods were only suitable to laboratories, he showed commercial potential of beet sugar in his discovery. ¹ Marggraf announced his discovery in a meeting of Berlin Academy of Sciences. In this meeting, he explained the procedure and exhibited some samples to academy members for their investigations. He met some suspicion. As a result of this, he made some additional experiments to test any possible mistake in his studies. At the end, he reproofed his discovery. But he could not find any investor to support his studies. ²

Due to lack of financial supporter, beet sugar could not produce commercially in Germany. But other than absence of investor, there were also two reasons for the late coming of this industry. Firstly sugar could still be bought more cheaply from the tropics, because with the available techniques sugar production from beet required much more expenditures. Secondly Marggraf recommended the beet as a source of syrups for cooking, not as the basis of a new industry. This situation changed with Napoleonic Wars, because military conflicts blocked cane sugar transportation. On the other hand, investigations were lasted about beet sugar; although it could not gain a commercial importance yet. Marggraf's student and successor began a systematic study of

1 William G. Freeman, "Current Investigations in Economic Botany (Continued)", *the New Phytologist*, Vol.6, No.1, Wiley, 1907, pp.18-19.

2 E. Sowers, "An Industrial Opportunity for America", *the North American Review*, Vol. 163, No. 478, University of Northern Iowa, Iowa, 1896, p. 318.

beet sugar in 1786 at Caulsdorf. Thus, by the time of Napoleonic wars, sugar shortages could be overcome with the availability of beet sugar technology. In 1799, Achard presented to Frederick William III of Prussia a loaf of beet sugar which was prepared at a Berlin refinery. With royal assistance, Achard set up a sugar work. But this work was failed, mainly due to his lack of business skill; although insufficient research and development may have played a part as well. Achard applied France with his results, because of French investigations about getting sugar from grapes. But nothing had happened. Meanwhile a Königsaal refinery in Bohemia produced beet sugar in 1797, another beet sugar factory also opened at Horowitz in 1800. France maintained their researches to carry out systematic tests of new plants. They also crossed various strains of beet. The factory of Freiherr Moritz von Koppy started production in 1806. His (White Silesian) beetroot has provided all of the modern strains of sugar beet. Achard also told with Russian Tsar for his work and opened a factory in here. In 1809, there were eight factories in Russia.³

After unsuccessful and insufficient results of grape sugar, Napoleon decided an expansion of the French beet sugar enterprise. In 1811, He ordered 32,000 hectares to be prepared for sugar beet cultivation. He had established four schools in which sugar manufacture was to be taught. The following year, one more school was opened and all students of sugar schools were received scholarships. The area of sugar beet cultivation amounted to 100,000 hectares. In addition to these efforts, he ordered a decree on 1 January 1813 that all further sugar imports from West and East Indies were prohibited. After agricultural and technical supports, French government also promoted industrial part of sugar manufacturing, 500 licenses were granted for sugar beet production. Each entrepreneur was obliged to erect a factory to reach a production quantity of 10,000 kg of sugar in the campaign of 1812-1813. Given license would be extended, only if the producer reached necessary amount. All successful producers were exempt from any duty or excise. Exclusion of colonial sugar increased sugar prices. As a result of this, promising sugar beet industry also spread Austria and Germany.⁴

In Austria, sugar beet industry began to gain importance after 1831. Many great factories were established in 1840's. While in 1854, the amount of local production and imported sugars were equalized. As to Germany, their producers' success was realized in efficiency. The Germans succeeded in getting more sugar from beet and became more profitable producers. From the same amount of sugar beet, German producers increased their efficiency 1.74% in between 1836-37 to 1850-51.⁵

3 Peter Macinnis, *Bittersweet the Story of Sugar*, Allen & Unwin, Sydney, 2002, pp.131, 134-135.

4 H. C. Prinsen Geerligs, *The World's Cane Sugar Industry Past and Present*, Norman Rodger Altrincham, Manchester, 1912, pp.16-17.

5 Geerligs, *ibid*, p.18.

As to USA, American sugar beet cultivation was firstly begun in Philadelphia. Abolitionists founded (the Beet Sugar Society of Philadelphia) in 1830, against slave labored cane sugar production of Louisiana and West Indies. Society brought beet seeds from Europa in 1836. But their first trial of sugar beet cultivation became unsuccessful, due to late sowing and some other agricultural problems. The following year, they succeeded to harvest some amount of beet. In 1838, first beet sugar factory of USA was established in Northampton of Massachusetts. This factory could produce representative amount of 600 kilogram beet sugar. Later due to economic and technical problems, first beet sugar factory of USA was closed in 1841. At the same dates, another attempt of beet sugar production was practiced in White Pigeon of Michigan. In 1837, a company was founded in this city. Following year another beet sugar factory was also established here. But like Northampton factory, similar problems prepared the end of the factory. ⁶

After 14 unsuccessful ventures and 40 years interval, E. H. Dyer became first accomplished entrepreneur in beet sugar production. He reorganized a closed factory in Alvarado of California with new machines. This factory started to production in 1879 and successfully lasted its operations for a long time. But in the field of beet sugar production, Claus Spreckels was prominent man with his organized activities. Before setting up this business, he went to Europe in order to complete necessary investigations. He personally worked for a beet sugar factory in Magdeburg of Germany. He attained necessary know-how in here and returned to USA with some amount of beet seed. After required researches, he made important investment in California. Spreckels founded the Western Beet Sugar Company in 1888. His first factory was established in Watsonville and also added one more factory near city of Salinas. His second venture became the greatest American factory in beet sugar industry. Spreckels' success set an example to other entrepreneurs. After California, new factories were established in Nebraska and Utah during 1890's. Thus American beet sugar industry was firmly settled, with 50 years late coming according to Europa. ⁷

In this article, historical development process of beet sugar industry was given, first of all. Secondly, competitive position of beet sugar was described vis-à-vis historically market setting cane sugar. After this general perspective, establishment efforts of Turkish sugar industry were given within the example of Alpullu Sugar Factory. Turkish government started preparations by enacting a supportive law to newly founding sugar industry. For further assistance, government granted monopolistic power to sugar industry. After these convenient conditions, Mehmet Şakir Kesebir and his friends decided the foundation of Alpullu Sugar Factory. For the management of Alpullu Sugar

6 Habil Akiltepe, Şahap Barker, Nurettin Vanlı, *Amerika Birleşik Devletlerinde Şeker Pancarı Ziraati*, Türkiye Şeker Fabrikaları A.Ş. Neşriyatı, Ankara, 1967, p. 50.

7 Ibid, pp. 50-51.

Factory, a company was established on 24 June 1925. Later, construction of the factory started within same year. Then, factory started its operations on 26 November 1926. In this article, every available details of the factory were given, from location selection to technology transfer during first 15 years of the factory. Other than industrial entrepreneurs, Alpullu Sugar Factory also provided two main benefits to local peasants. Firstly, peasants learned a new and profitable cultivation type. Secondly, the factory provided additional employment for them. Thereafter industrial and agricultural efforts, market research of the factory was given. Without obtaining local demand, Alpullu Sugar Factory could not successfully compete with foreign sugars. In that period, Turkish Government also supported these efforts. At the end of the article, abolition of the Alpullu's company and centralization of Turkish sugar industry were given, with adding some critiques to management of the factory.

1. Beet Sugar Competition Versus Cane Sugar

Politic decisions were largely affected the competition in between beet and cane sugar. At the beginning, Germany allocated large subsidies to sugar beet. But with the end of Napoleonic Wars, trade was reopened and sugar cane flourished. Then slavery was abolished and the Colonies' cane sugar production was suffered. Later on, Germany, Austria and France developed a subsidiary system to promote beet sugar exports. All positions were reversed. At the end, in order to prevent the extinction of sugar production of the Colonies; British Government gathered Brussels Convention in 1902. In this convention, bounties over beet sugar exports were abrogated. Cane sugar production was steadily increased and passed the level of beet sugar production in 1914.⁸

For the competition, sugar beet gained an advantage within time over sugar cane. In 1836, the best beet sugar yield was about 5.5 % by weight, but this ingredient reached 16.7 % in 1936. This increase came partly from improved plants, but more originated from better methods of extraction. In 1866, Jules Robert developed a new diffusion technique. With Robert's new method, beet sugar effectively competed with cane sugar after 1880's. Even in 1885, the world produced more beet sugar than cane sugar. Beet sugar had also two more advantages. Growing sugar beet provided important amount of discount in transportation fee. Even in about 1850s, sugar beet commenced to grow in places like Utah which is in the middle of USA. Second advantage of beet sugar was its superior storage simplicity. Because beet sugar could be produced as white granules; thus it did not lose weight in transportation, something the wholesalers appreciated. But beet sugar was not free from drawback. In order to whiten color of sugar, a small amount of sulfuric acid added to it in 1890s.

⁸ Edward R. Davson, "Sugar and the War", *Journal of the Royal Society of Arts*, Vol.63, No.3248, Royal Society for the Encouragement of Arts, Manufactures and Commerce, London, 1915, p. 262.

Although sugar had a strong chemical smell, traders claim that they had no choice. They said that, with its original brownish yellow color, this sugar could not be sold.⁹

In order to clearly demonstrate the competition of beet and cane sugar, some figures should be given. During the second half of 19th century, beet sugar industry showed remarkable development. In 1853-54, European beet sugar production materialized as 203,200 tons. This production steadily and rapidly increased up to 5,892,800 tons in 1903-04. Although some statistical difficulties, cane sugar also showed important production increases in that period. In the beginning, cane sugar production was estimated as 1,219,200 tons. At the end, it's reached 4,363,800 tons. But when these figures were considered in percentages, success of beet sugar was seen much more obvious. In 1853-54 cane sugar constituted 86% of the world's commercial sugar crop, but beet sugar was only 14% of it. 50 years later, cane sugar contribution became 42% to world trade, whereas beet sugar rose to 58%.¹⁰ The position of cane sugar was restored with the effects of the Brussels Sugar Convention of 1902 and World War I, up to 75% of world's supply. Renewed efforts of beet production reduced the share of cane sugar up to 65% during late 1930's. Although these trials, cane sugar protected its strong place thereafter.¹¹

2. Supporting Law of Newly Founding Sugar Factories

Turkey wanted to establish its own local sugar industry in the middle of 1920's. Law of numbered 601 was enacted on 14 April 1925 to reach this aim. Government decided to promote new entrepreneurs to this industry. This law consisted of 13 articles that some important clauses would be mentioned hereafter. In first article, sugar factories had privilege area of sufficient amount of raw material could be cultivated there. This area was maximum five provinces width and all sugar factories had privilege period of 25 years. In third article, all locally produced sugar would be exempt from excise duty for eight years. In fourth article, all beet cultivation for sugar production would be exempt from land production duty for ten years. This exemption was started from the establishment of the factory, on the condition that all beet cultivation must be used in that factory. In fifth article, for charcoal and lime¹² needs of factory, related mines would be operated free from any tax. In seventh article, raw

9 Macinnis, *ibid*, pp.140-141.

10 Frank R. Rutter, *International Sugar Situation, Origin of the Sugar Problem and Its Present Aspects under the Brussels Convention*, United States Department of Agriculture, Washington, 1904, pp. 9-10.

11 B. C. Swerling, *International Control of Sugar, 1918-41*, Stanford University Press, Stanford, 1949, pp. 11-12.

12 Lime was an important raw material for sugar production. Alpulu Sugar Factory had an official license to operate a limekiln in Şeytanderesi location of Kırklareli province. Prime Ministry Republican Archive (Başbakanlık Cumhuriyet Arşivi) hereafter BCA 30-1-105-653-4.

materials and productions of factory would be transported by public facilities within one third discounts. In eighth article, employees of sugar factories would be exempt from income tax for ten years. This verdict would begin from the inauguration of their factory.¹³

3. Foundation of the Company

Alpullu Sugar Factory was established by Turkish Joint Stock Company of İstanbul and Thrace Sugar Factories (İstanbul ve Trakya Şeker Fabrikaları Türk Anonim Şirketi). Ministry of Commerce served company's draft proposal of internal regulations to the cabinet on 21 June 1925. According to this draft; company had a privilege area of İstanbul, Çatalca, Tekirdağı, Kırklareli and Edirne provinces. For the raw material needs, company could either cultivate sugar beet itself or could hire peasants for this purpose. In order to improve and increase sugar beet production, company could make some publications. Company would have 50 years period and 500,000 Turkish liras foundation capital, in order to build and manage factories. In this meeting, company's letter of guarantee also served to members of cabinet, that it had a ratio of 10% of the capital. At the end of this meeting, a decision was taken that some necessary amendments must be made in company's internal regulations.¹⁴

Three days later, cabinet confirmed the establishment of company with some little changes. Privilege period of the company was reduced to 25 years from 50 years. The company would receive all permissions and exemptions of law of numbered 601 which was enacted on 5 April 1925. But the company must finish the construction of all necessary buildings of factory, within specified time. Otherwise its monopolistic rights would be abolished.¹⁵

The company was founded with a capital of 500,000 liras. Its bonds were sold from 10 liras. The biggest shareholder of the company was İş Bankası that

13 "Law of Granting Privileges and Exemptions to Sugar Factories" (Şeker Fabrikalarına Bahşolunan İmtiyazat ve Muafiyat Hakkında Kanun), *Resmî Gazete*, No: 92, 14 April 1925.

14 "İstanbul, Çatalca, Tekirdağı, Kırklarlı ve Edirne vilayetlerini ihtiva iden mıntka dâhilinde şeker istihsali için lüzumlu olacak şeker pancarını yetiştirmek üzere ihtiyaca göre toğrıdan toğrıya veya bil-iştirak icra-yı ziraat itmek ve şeker pancarı ziraatının islahı ve teksiri hususunda neşriyat ve teşebbüsâtda bulunmak ve fabrikalar inşa itmek ve işletmek ve buna mütefferri bil-cümle muamelat ifa eylemek maksadıyla ve elli sene müddet ve beş yüz bin Türk lirası sermaye ile teşkil iden (İstanbul Trakya Şeker Fabrikaları Türk Anonim Şirketi) nin tadilat ve tashihat-ı lazıme icrasıyla Ticaret Vekâleti Celilesinden mevru nizamname-i dâhiliye layihası ve sermayenin yüzde onunun depozito idildiğine natık banka mektubu ve taahhüd senedi icra vekilleri heyetinin 21 Haziran 1341 tarihli içtimaında tedkik ve mütalaa olunmuş ve mezkûr şirket nizamname-i dâhiliyesinin tadilat-ı vakia dairesinde tasdiki..." BCA 30-18-1-1-14-40-13.

15 "...yirmi beş sene müddetle ve 5 Nisan 1341 tarih 601 numarolu kanuna tevfiikan ve mezkûr kanunda muharrer bilumum müsadât ve muafiyetden istifade itmek üzere ve Ticaret Vekâleti tarafından bu babda tanzim olunan talimatnamede tayin idilen müddet zarfında tesisat ve inşaatı temin idilmediği halde hak-kı inhisarı kendiliğinden sakıt olmak şartıyla..." BCA 30-18-1-1-14-41-5.

it had 68% of the capital. Remaining part of it belonged to two owners; 10% Ziraat Bankası and Thrace Provinces Special Administrations (Trakya İlleri Özel İdareleri) and 22% private parties including some Thracian peasants. The company started its operations with capital of 500,000 liras. But sugar factory processing required much more capital power. In 1927, the company increased its capital to 750,000 liras and also issued same amount of obligation. Although these efforts, company declared losses in its first two years; to compensate some of them, Ministry of Finance helped to the company with 200,000 liras.¹⁶ In order to strengthen its financial structure and clear bank credits, the company raised its capital 3.000.000 liras in 1933. It shared new bonds and sold half of them.¹⁷

This company had a background of powerful members. Member list included five deputies that were Edirne Deputies Faik Kaltakkıran and Hüseyin Rıfki Arduman, Tekirdağ Deputy Faik Öztrak, Bilecik Deputy İbrahim Çolak and Çatalca Deputy Mehmet Şakir Kesebir. Except deputies, other founders were tobacco merchant Hacı Ahmet zade Salim Nuri, merchant Ahmet Rüştü zade Mehmet Hayri, timber merchant Ali, merchant Nuri zade manufacturer Burhaneddin and merchant Yolageldi zade Kasım Bey.¹⁸ Among these persons, the most important member of the company was Mehmet Şakir Kesebir. His importance would come from sugar monopoly (şeker inhisarı). Law draft of sugar monopoly was presented to TBMM on 4 November 1925.¹⁹ 724 numbered monopolistic law was accepted on 25 January 1926. According to ninth article of this law, sugar monopoly administration must be founded. To the presidency of this administration, Mehmet Şakir Kesebir was appointed on 9 February 1926 with the allocation of 300 liras.²⁰

4. Alpullu Sugar Factory

Alpullu Sugar Factory was planned to be founded near Ergene River²¹ in which there were some fertile lowlands to produce efficiently sugar beet. Before

16 Turan Veldet, *30. Yılında Türkiye Şeker Sanayii*, Türkiye Şeker Fabrikaları A. Ş. Neşriyatı, Ankara, 1958, pp. 241-242.

17 İhsan Abidin Akıncı, *Şeker Yetirmeden Bitirmeye Kadar Türkiye-Dış Memleketler*, Akşam Matbaası, İstanbul, 1934, pp.61, 63.

18 In this list Tekirdağ Deputy Mehmet Cemil (Uybadın) also mentioned, but Akıncı did not include this name in his book. Probably, because he became Minister of Interior in 1925 and then he left activities of the company. ..., *İstanbul ve Trakya Şeker Fabrikaları Türk Anonim Şirketi Nizamname- i Dâhiliyesi*, Matbaa-i Ahmed İhsan ve Şürekâsı, İstanbul, 1925, p. 4.

19 BCA 30-18-1-1-16-68-4.

20 "Şeker inhisarı hakkındaki 25 Kânunusani 1926 tarih ve 724 numarolu kanunun dokuzuncu maddesi mucibince, teşkili icab iden inhisar idaresi meclis idare riyasetine Çatalca mebusı Şakir... Efendilerin tayini ve reisine üç yüz... lira tahsisat itası... icra vekilleri heyetinin 9 Şubat 1926 tarihli ictimanda tasvip ve kabul olunmuşdur." BCA 30-18-1-1-17-92-5.

21 This river provided an important advantage to the factory. Although its construction was begun early according to Alpullu, Uşak Sugar Factory lately started its activities, because of lack of sufficient water sources. Ali Mülayim and Timur Kaprol, "İşçi Sınıfı İçin Modern Yaşamın Kodları: Alpullu Şeker Fabrikası", *EJOVOC*, Vol. 6, No: 1, Kırklareli, 2016, p. 26.

construction of the factory, company gave importance to sugar beet cultivation. With directives of company; sugar beet was planted within 750 hectares area, before 1 December 1925. Company also gave order to leave peasants 800 hectares area fallow for preparation of sugar beet. In near villages and towns, there were lively preparations for beet agriculture.²² For the machine park of the factory, 24 bids were taken. At the end, Buckau R. Wolf²³ sugar industry's offer from Magdeburg of Germany was accepted and machinery was purchased from here.²⁴

The construction of Alpullu Sugar Factory was begun on 22 December 1925, just after 46 days of starting of Uşak Sugar Factory's construction. All the preparations and construction lasted 11 months. Inauguration ceremony was occurred on 26 November 1926. Factory was opened near Alpullu train station. This station had connections to İstanbul, Edirne, Babaeski and Kırklareli railway lines.²⁵ In addition to these transportation facilities, one more investment was practiced for raw material supply. Factory had own farm for sugar beet cultivation that which is name Sarımsaklı. For the convenient transportation of sugar beet, railway points would be built for this farm. Cabinet took this investment decision on 14 November 1926 that it was happened 12 days earlier from inauguration ceremony.²⁶ Four years later, Atatürk visited Alpullu Sugar Factory on 20 December 1930.²⁷ In this visit, he was informed by the manager²⁸ of factory. Atatürk wrote to the diary of factory, his further plan to this industry. "Turkish sugar industry must be expanded to every convenient place of Turkey. Thus, Turkey should provide sugar needs without importation."²⁹

Company aimed to found a factory that minimum yearly processing capacity must be over 20,000 tons sugar beets. At the beginning factory operated 500 tons daily capacity. But factory's capacity was improved steadily year by year that it became 800 tons in 1930, 1000 tons in 1931 and 1200 tons in 1932. Up until 1931 factory could only produce granule sugar. But implementing of

22 V. Türkan Doğruöz, "Yakın Dönem Kırklareli Tarihinde İki Yaprak: Trakya'da Yeni Işık Gazetesi ve İzmir Suikastını Tel'in Mitingi", *Yakın Dönem Türkiye Araştırmaları İstanbul Üniversitesi Atatürk İlkeleri ve İnkılâp Tarihi Enstitüsü Dergisi*, Vol.2, No:4, İstanbul, 2003, p.46.

23 Same company still continues its activities today. In its website, the company was advertised its products. "The largest international sugar companies rely on a big variety of *Buckau-Wolf* products. Our portfolio consists of continuous and batch-type centrifugals in different sizes as well as vacuum pans with our patented honeycomb calandrias. http://www.bws-technology.com/en_EN/sugar-technology/buckau-wolf.html. Date of access (24 October 2016).

24 Akıncı, *ibid*, pp.61-62.

25 Veldet, *ibid*, p.241.

26 "Alpulludaki şeker fabrikasının işleyeceği pancarların nakliyatı için Sarımsaklı çiftliği ile Çakmak mevkiğinde tesisine lüzum görülen makasların...inşası...icra vekilleri heyetinin 14 Teşrinisani 1926 tarihli ictimasında tasvib ve kabul olunmuştur." BCA 30-18-1-1-21-69-7.

27 BCA 30-10-2-9-40.

28 Herman Gutherz was the manager of the factory. He was an engineer of German-Jewish origin. BCA 30-18-1-2-91-57-4.

29 Turan V. Velidedeoğlu, Ethem Kuru, Rıza Güray, Murat Öner, Yılmaz Güreli and Yavuz Demirtaş, *Türkiye Şeker Sanayii 1926-1976, Yurt Hizmetinde 50 Yıl, Türkiye Şeker Fabrikaları A. Ş. Yayınları*, Ankara, 1977, p.78.

necessary facility, factory started cube sugar production in 1932 with a daily capacity of 40 tons.³⁰ Factory processed sugar beet in 1929 30,345 tons, in 1931-32 100,000 tons and with best weather conditions 318,000 tons in 1933.³¹

Sugar factories require continuous flow of raw material. Because sugar beet could not wait too much in silos or transportation facilities, due to every lost minute means loss in sugar content of beet.³² Therefore factory must obtain its needs in nearby areas. But agriculture of sugar beet was relatively a new cultivation type for Turkish peasants. Factory must also teach it to Thracian peasants. Thus, factory would guarantee sufficient amount of sugar beet cultivation, to continue its working. The sugar company founded Turkish-German Agriculture Joint Stock Company (Tazaş) to conduct these types of operations. Tazaş purchased Sarmısaklı farm and hired Türkgeldi, Karadanişment farms and pasture of Bedir farm in Lüleburgaz. In these farms 30,000 decares land was cultivated with iron made plow instead of primitive wooden "karasaban". One third of this area had been allocated to beet cultivation. But this production began to decrease with increasing demand of sugar beet cultivation of peasants. Other than teaching beet cultivation, seed production was another problem for Alpullu Sugar Factory. Yearly need of 400-420 tons beet seed had been brought from Germany. Alpullu Factory established its own facility to provide its need locally in 1933.³³

General agricultural inspector of Alpullu Sugar Factory, A. Şefik presented a detailed report for sugar beet in 1931 Agriculture Congress. According to him, beet cultivation specifically had two important benefits for country. First beet cultivation required much more workforce. Cultivation area of Alpullu Sugar Factory was in between 50,000-60,000 decares. For hoeing, harvesting and transportation, one decare beet field required 11 daily labors. That meant beet cultivation could produce up to 660,000 daily wages within a year. When industrial workers added to this number, employment providing potential of sugar beet could be easily seen. Second benefit of the sugar beet cultivation was a considerably increase in agricultural yield. Beet needs much more detailed care in the fields; this provides enormous efficiency in also other agricultural products. Alpullu Factory gave importance to agricultural education. It founded an agricultural organization from Germany and Hungary educated Turkish people, to inform peasants about beet cultivation and modern agriculture. Peasants learnt modern machinery and importance of manure for productivity. They abandoned burning of manure as fuel and used it as fertilizer.³⁴ These efforts rapidly showed its effects in efficiency. According to

30 Akıncı, *ibid*, p.62.

31 ..., *Türkiye Şeker Sanayii, Kuruluşu-Gelişmesi-Olgunlaşması 1926'dan 1950'ye*, Türkiye Şeker Fabrikaları A. Ş., Ankara, 1950, p.8.

32 R. H. Cottrell, *Pancar Şekeri Ekonomisi*, tra. Ziya Kütevin, Türkiye Şeker Fabrikaları A. Ş. Neşriyatı, Ankara, 1962, p. 175.

33 Akıncı, *ibid*, pp.72-73.

34 A. Şefik, "Şeker Pancarı", *1931 Birinci Ziraat Kongresi, İhtisas Raporları*, Vol. 1, Milli İktisat ve

Table 1, beet cultivation area enlarged 22%, whereas beet production increased nearly tenfold.

Table.1. Sugar Beet cultivation in Kırklareli Province in 1926-1927

Places	Decares	Kilogram
Babaeski	5688	6,205,855
Kırklareli Center	2557	1,749,268
Lüleburgaz	1990	1,243,910
Vize	139	147,792
Total of 1927	10,374	9,346,825
Total of 1926	8500	947,000

Sources: Ziraat Vekaleti İstatistik Müdüriyeti, 1926 *Senesi Ziraat İstatistikleri*, Sanayi-i Nefise Matbaası, İstanbul, 1926, p.10, Merkez İstatistik Müdüriyeti Umumiyesi, 1927 *Senesi Zirai Tahriri Neticeleri*, İstanbul Cumhuriyet Matbaası, Ankara, 1928, p. 84.



Photograph.1. Outer side of Alpullu Sugar Factory



Photograph.2. Inner side of Alpullu Sugar Factory



Photograph.3. Alpullu Spirit Factory ³⁵

35 This factory did not operate anymore in 1944. Ali Cenani Ercan named entrepreneur had a spirit factory in Çengelköy of İstanbul. He demanded idle molasses of Alpullu Sugar Factory to the usage of his own factory. BCA 30-10-171-189-20.

Source: Milli İktisat ve Tasarruf Cemiyeti, *Milli Sanayi Kataloğu*, Hakimiyeti Milliye Matbaası, Ankara, 1930.

In 1930's, Alpullu Sugar Factory founded three auxiliary facilities. First investment was made for quick acceptance of sugar beet to the factory. The company purchased automatic beet weighing machine and some construction materials from Germany. Cabinet permitted 16 marks and 2747 dollars' worth importation on 24 September 1933. ³⁶ Second facility was established for the meeting of employees' needs. Alpullu was a small town of Babaeski district. Under the conditions of 1930's, employees could not provide much of necessary materials for their livelihoods. To supply this demand, a consumer cooperative was established with the name of (Alpullu Fabrikaları Mensubini Kooperatif Şirketi). This cooperative could buy every kind of consumer goods and victuals to sell either its members or all other consumers. It had ten years period and 2000 liras capital that its foundation was ratified on 26 June 1934. ³⁷ Third investment was realized for the protection of environment. Factory's wastewaters were collected in sedimentary pools. But present pools became insufficient to accumulate limy and waste waters. Although Ergene River is very close to the factory, draining wastewaters to it was not accepted as convenient. Enlargement of these pools were decided. For this aim a new plot was chosen in between the factory and Ergene River. This plot was out of the municipality border and within the condition of semi-swamp. It had width of 51,250 square meters. Cabinet confirmed its sale to the factory on 28 April 1937. ³⁸

Beginning of World War II caused production difficulties ³⁹ for Alpullu Sugar Factory. Ministry of Economics informed Prime Ministry about these problems on 4 June 1941. The situation would affect both beet cultivation area and sugar production. There were four problems that they presented to Prime Ministry. Firstly, in Thracian villages there was a general tendency to migration. Factory management distributed some amount of advance payment to peasants to lessen this tendency. Although all efforts, cultivation area of Alpullu Factory decreased from 140,000 decars to 126,000 decars. In spite of these complaints, beet cultivation area increased twofold in ten years. Secondly, all men as old as 40 years old were taken into military service. Lack of manpower caused failures in beet cultivation and transportation. Thirdly, decrease in peasants' transportation facilities ⁴⁰ caused some additional problems in factory's operations. Factory

36 BCA 30-18-1-2-39-66-14.

37 BCA 30-18-1-2-46-45-20.

38 BCA 30-18-1-2-74-35-4.

39 For the subvention of sugar beet production, Turkish government decided to pay additional 0.25 piasters (10 Para) to producers in 1940 and would revise sugar beet prices in the next harvest time. BCA 30-18-1-2-93-107-17.

40 Important part of dragged animals was confiscated by army, during World War II. Şevket Pamuk, "İkinci Dünya Savaşı Yıllarında İlaşe Politikası ve Köylülük" *Osmanlıdan Cumhuriyete Küreselleşme, İktisat Politikaları ve Büyüme*, Türkiye İş Bankası Kültür Yayınları, İstanbul, 2009, p. 184.

could work with lower production level or maybe it would experience some pauses in its operations. Lastly, if bridge renovation in between Edirne and Alpullu was not complete before the beginning of campaign, harvest of the region could not be reached to factory. 20,000 tons estimated beet harvest could not process by factory and this situation greatly harmed peasants. Factory's yearly yield also diminished approximately 3000 tons sugar.⁴¹

5. Market Research For Alpullu Sugar Factory

Alpullu Sugar Factory started its operations with granule sugar production. Later the factory also directed to cube sugar production, especially for the demand of Eastern Anatolia. But factory could not fully meet this demand. Important amount of cube sugar was imported. On the other hand, granule sugar production had to be success in fierce foreign competition. Wholesale merchants did not prefer factory's production. In the market, lots of rumors were spread against its production. Local sugar was tasteless and has brown color, like that. In that period, factory did not also have sufficient warehouses to its stocks. Enlarging stocks and growing warehouse rents harmed the process of factory. Addition to these problems, decreasing world sugar prices hardened the situation. Something must be done to strength competition power of the factory. One day, executive director Hayri İpar invited sugar merchants to the center of company. These merchants controlled the main part of Turkish sugar market. Hayri İpar informed them about Turkish sugar production. He claimed that there was no difference in between quality of local and foreign sugar. In order to prove this claim, he offered a trip to Alpullu Sugar Factory. Merchants visited the factory with the accompanying of manager Herman Gutherz. In this visit, merchants demanded the manufacture of Dutch type crystal sugar. Manager Gutherz said that factory had ability to manufacture this demand if a few piasters higher price was accepted. Merchants eagerly accepted this offer. Alpullu Sugar Factory started to produce Dutch type sugar and sent it to İstanbul market. Merchants paid higher prices to this production according to ordinary granule sugar.⁴²

During 1930's, Turkish government wanted to practice nationalization policies in Turkish industry. State policies aimed that every consumer goods should be produced locally.⁴³ An advertisement from Cumhuriyet newspaper which was published on 26 December 1931 showed this tendency. In here, Melba Company had advertised its sugary cacao product. Company claimed

41 BCA 30-10-171-188-8.

42 This meeting was narrated in Ali Seyfi Tülümen's memories. He worked for general accounting manager of Turkish Joint Stock Company of İstanbul and Thrace Sugar Factories. Veldet, ibid, pp. 307-308.

43 After 1929 crisis, Turkey began to harden in the importation of industrial consumer goods. Government supported or established some investments especially in flour, cloth and sugar, to meet these needs locally. Korkut Boratav, *Türkiye İktisat Tarihi 1908-1985*, Gerçek Yayınevi, İstanbul, 1998, p. 49.

that government's supportive perspective to local industry had encouraged its activities. Company produced its product from best cacao beans and first quality sugar of Alpulu Factory. This advertisement emphasized the company's Turkish origin and usage of locally produced sugar. ⁴⁴

6. Abolition of the Company and Some Critiques

Turkish Joint Stock Company of İstanbul and Thrace Sugar Factories was founded with 25 years privilege. But Turkish government wanted to manage all sugar factories from one hand. For this purpose Turkish Sugar Industries Incorporation (Türkiye Şeker Fabrikaları A.Ş.) was established on 6 July 1935 with same shares of İş Bankası, Ziraat Bankası and Sumer Bank. This new public company would have 22,000,000 liras capital and 99 years privilege. Like other three sugar factories, Alpulu Factory was also transferred to this company with all rights and obligations. ⁴⁵ Turkish Sugar Industries Incorporation began to manage all factory buildings, facilities, Turkish-German Agriculture Joint Stock Company and farms in Lüleburgaz. On the other hand, factory's liabilities also transferred to it. Turkish Joint Stock Company of İstanbul and Thrace Sugar Factories' unexpired bonds, machinery bills and other debts would be under the responsibility of Turkish Sugar Industries Incorporation from the date of 1 January 1935. ⁴⁶

Before this clear nationalization, government control had already begun at the factory. 22% private share owners wanted to sell their portions to government, just after four years later from the establishment of the factory. Three important businessmen who were Hayri İpar, Şakir Kesebir and Kazım Taşkent took the leadership of the situation. All private shares were purchased by the state, without any official explanation. Considerably decreasing sugar prices caused this decision, because 1929 World Economic Crisis was also affected Turkey. Hayri İpar had a nickname of (sugar king) and he preferred more profitable importation instead of manufacturing. ⁴⁷ Kazım Taşkent prepared to establishment of a bank. As to Şakir Kesebir, he chose to be politician; later he became Minister of Economics. ⁴⁸

44 Saadet Özen, *Çukolata Çikolatanın Yerli Tarihi*, Yapı Kredi Yayınları, İstanbul, 2014, p.166.

45 Mehmet Karayaman, "Atatürk Döneminde Şeker Sanayi ve İzlenen Politikalar", *Atatürk Araştırma Merkezi Dergisi*, March 2012, No: 82, p. 82.

46 Muammer Eriş, *Türkiye Şeker Fabrikaları Anonim Şirketi, 28 Şubat 1936 Tarihinde Münakit Birinci Alelade Heyeti Umumiye İctimai*, Ulus Basımevi, Ankara, 1936.

47 For this tendency, Özer made similar comments. After acquiring sugar monopoly, management of Alpulu Sugar Factory limited sugar production. They cheaply imported sugar and expensively sold it to Turkish market. M. Halis Özer, "Cumhuriyetin İlk Yıllarında Milli Tüccar Oluşturma Çabalarında İş Bankası'nın Rolü", *Ankara Üniversitesi SBF Dergisi*, Vol.69, No: 2, Ankara, 2014, p. 359. Production cutting was also practiced by Turkish government. Yearly sugar production limited as 65,000 tons for years of 1936, 1937 and 1938. If the yearly consumption would happen more than 65,000 tons, excess amount would be imported for the protection of tax revenue. BCA 30-18-1-2-67-66-12.

48 Aydın Engin, "Bir Şeker Hikâyesi: Alpulu Şeker Fabrikası", *75 Yılda Çarklardan Chip'lere*, ed. Oya Baydar, Tarih Vakfı Yayınları, İstanbul, 1999, p. 41.

After the abolition of the company, strong accusations were directed to management of the factory. Former member of Bulgarian National Assembly, Salim Nuri Dağlı gave a notice to Presidency of the Republic and Prime Ministry on 8 March 1939. In this notice, he mentioned some improper and unlawful practices of the managers of abolished company. Very similar notice had also been given by Muammer of Ahmed Hamdi to Finance Inspection Committee on 28 March 1935. Mentioned committee evaluated the former notice in terms of income tax. Inspection Committee of Ministry of Economics was assigned for considering this notice.⁴⁹

Dağlı's accusations were divided into eight parts. Firstly, manipulation in amortization⁵⁰ caused loss for government in income tax. By crossing specific rate of it, in 1932 19,773.06 liras and in 1933 494,247.17 liras were shown as excessive amortization. Secondly, the company and İş Bankası made a contract of ten years. According to this agreement, the bank would yearly loan 1,000,000 liras to Alpullu Factory. In return for it, the factory would yearly pay 12% interest and 100,000 liras commission to the bank. Although this plan lasted for four years as it started, in fifth year 500,000 liras were given in once for decreasing profit. Thirdly, factory's machinery was purchased from Magdeburg of Germany. Seller Buckau Factory would receive its payments with installment. Payments would be made as American Dollars in New York. But dollar exchange rate began to lose value in 1933. As a result of this; payment center became Magdeburg, in contrary to contract verdicts. Another contradictory change was happened in payment type. Payments turned from dollars to Reich-mark, but calculation was made over gold-dollars. This account caused 225,291.71 liras surplus payment for factory. Fourthly, although Finance Inspection Committee accepted first three subjects, necessary income tax procedure did not follow by Ministry of Finance.⁵¹

After some tax and international payments matter, Dağlı's criticisms turned to internal accounts of the company. In fourth part, production cost of sugar was shown higher than actually was it is in 1933. When Prime Minister wanted to learn manufacturing expenditures, some additional costs were demonstrated, in order to decrease factory's profit. In fifth part, most of receivables of the company were deleted from records. Sixthly, 1933 sugar stock of the factory was presented with lower prices in balance sheet. Seventhly, another critique to balance sheet recording that 5500 liras expenditure was shown without materialization.⁵²

49 BCA 30-10-51-335-4.

50 Over amortization of Alpullu Sugar Factory was also discussed in TBMM, by İzmir deputy Hasan Hüsnü Kitapçı on 21 April 1934. Factory's balance sheet of 1933 showed 1,217,000 liras as profit. Besides, the factory spared 10% amortization for building and 20% amortization for machinery and tools. In that point, Kitapçı mentioned nearly accepted income tax regulation. According to this law, 5% of capital could be allocated as reserves and maximum amortization rates could be happened 4% for buildings and 8% for machinery and tools. On the other hand excessive amortization, Alpullu Sugar Factory spared 734,000 liras more reserves in that balance sheet. Kitapçı noticed here that eight piasters taxation could easily practice over sugar production. *T.B.M.M Zabıt Ceridesi*, Kırk İkinci İnikat, 21 April 1934, p. 101.

51 BCA 30-10-51-335-4.

52 BCA 30-10-51-335-4.

Inspection Committee of Ministry of Economics firstly reflected income tax critique to Ministry of Finance. Later respectively, they evaluated all other criticisms. Inspection Committee did not hold responsible administrative council from first three articles, because they approved by General Assembly. Fifth critique was accepted within the authority of administrative council. Sixth and seventh critiques were seen as important matters against General Assembly. But administrative council and inspectors could not charge from these matters, because of five years prescription of Commercial Code. For the fourth article, the committee evaluated the files of General Directorate of Industry. But they reached the conclusion that mentioned event was not happened.⁵³

Table.2.1932 Year Activities of Alpullu Sugar Factory According to Industrial Statistics (Values in Lira)

Value of Machinery and Equipment	Value of Factories Own Buildings	Number of Machines	Total Horse Power	Number of workers in most active period	Yearly Paid Workers' Wage	Value of Production
2,838,965	1,359,211	23	2036	800	116,592	4,819,231

Source: Başvekalet İstatistik U. M., *Sanayi İstatistikleri, Teşviki Sanayi Kanunundan İstifade Eden Müesseselerin 1932 Senesi Faaliyetleri*, Devlet Matbaası, İstanbul, 1933, pp.21-23.

Table.3. 1936-41 Years Activities of Alpullu Sugar Factory According to Industrial Statistics (Values in Lira)

Years	Work day numbers	Total of yearly paid wages	Value of sugar beet	Value of other operational materials	Value of production
1936	178,150	391,822	955,174	499,712	3,643,042
1937	149,644	355,808	723,305	353,133	2,861,349
1938	200,502	390,000	408,991	297,139	2,101,403
1939	195,420	373,426	1,262,681	322,811	6,377,717
1940	163,678	333,298	1,121,783	164,845	2,517,457
1941	196,714	382,306	2,900,261	325,845	5,751,464

Source: Başbakanlık İstatistik Genel Müdürlüğü, *Sanayi İstatistikleri, Teşviki Sanayi Kanunundan İstifade Eden Müesseselerin 1936-1941 Yılları Faaliyeti*, Hüsniatabiat Basımevi, İstanbul, 1945, p. 91.

53 BCA 30-10-51-335-4.

Conclusion

Sugar was historically produced only from sugar cane. But discovery of Andraeas Sigismond Marggraf changed the situation. Beet provided a different source of sugar production to new geographical areas. After Germany, with the support of France and Austria, beet sugar was quickly spread to Continental Europe. Later sugar beet crossed the Atlantic and reached USA. But beet sugar also attracted lots of political turmoil to itself in its competition with cane sugar. Because many nations formerly could not provide sugar to their markets without importation, they began to produce sugar by themselves. Their efforts were met with strong opposition of previous cane sugar producers. In this fierce and long competition, successes and failures followed each other.

After the proclamation of Turkish Republic, new government joined this competition to provide economic development. Government targeted the establishment of local sugar industry. For this aim, proper regulations were enacted and every available supports were given to probable entrepreneurs. Under these convenient conditions, preparations of establishment of Alpullu Sugar Factory were begun in 1925. After 19 months, factory started production. This start was an important step for Turkey, to provide a consumer commodity locally. Of course, Mehmet Şakir Kesebir and his partners tried to attain important amount of profit. But other than industrial targets, Alpullu Sugar Factory was also affected the life of local people.

Newly founding factory demanded factory workers. Alpullu town of Kırklareli province was small residential area with little employment opportunities, even for today. Although some of them seasonal, factory provided 800 jobs in 1932. But factory's benefits did not limited just only industrial employment. Beet sugar manufacturing requires continuous and quick raw material supply. For this purpose, factory taught Thracian peasants sugar beet cultivation, because it was a new product for the region. This education assured double benefits for peasants. Firstly fields were started to cultivate more cautiously, because beet requires more attention than traditional wheat and barley. Thus, elegantly cultivated lands provided better harvests. Secondly, factory became a regular purchasing center for peasants. This situation mostly insured peasants form market fluctuations. But all efforts and successes were shaken by 1929 Crisis. Astonishingly decreasing sugar prices hardened the operation of factory. Operational expenses were seen so much, because import sugar could be purchased very cheaply in the market. Under the new conditions, there was little space for profit of private sector. But in this period, Turkish government's target of constant sugar supply to citizens got hard, due to importation difficulties. Solution did not come late. Government nationalized Alpullu Factory together with all other sugar factories, to reduce production cost of sugar. Thus, sugar could be constantly supply to Turkish people.

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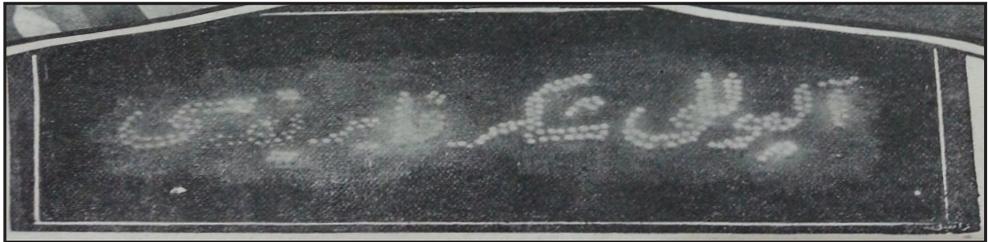
Supplement.1.

Photographs from the Inauguration Ceremony of Alpullu Sugar Factory

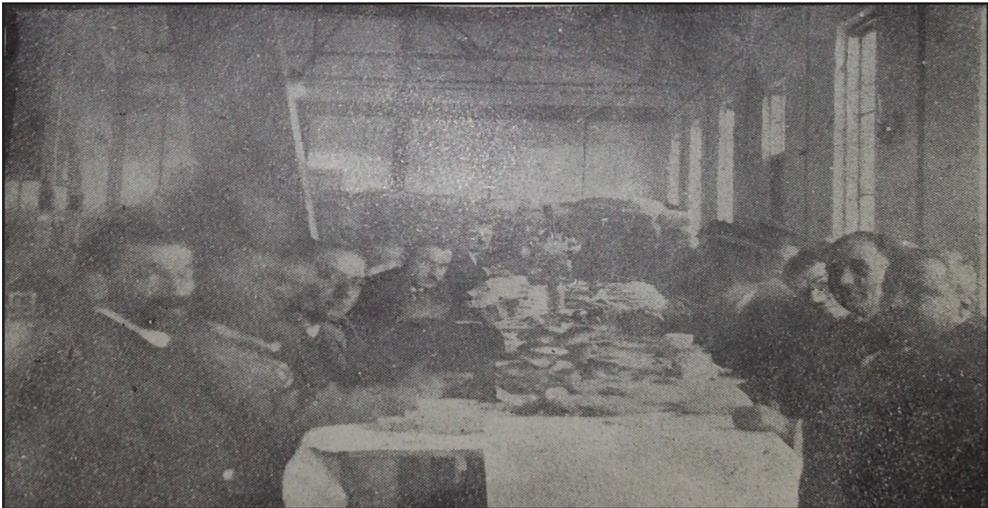
Photograph.1. Factory Building



Photograph.2. Illuminated signboard of “Alpullu Sugar Factory”



Photograph.3. Inauguration Banquet



Photograph.4. Invited Protocol



Photograph.5. Gathered Children and People for the Inauguration



Source: "İktisadi İstiklale Doğru İlk Adımlar, Alpülluda İlk Türk Şeker Fabrikasının Resmi Küşadına Aid İntibaat", *Haftalık Mecmua*, Year: 2, No: 73, 6 December 1926 Monday.

