

Contributions of Foreign Scientists to the Turkish Veterinary Medicine and Animal Husbandry in the Early Republican Period (1923-1933) ^[1]

Özgül KÜÇÜKASLAN ¹ Nigar YERLİKAYA ² Ali YİĞİT ^{3,a} 

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¹ Dicle University, Faculty of Veterinary Medicine, Department of Veterinary History and Deontology, TR-21280 Diyarbakır - TÜRKİYE

² Ankara University, Faculty of Veterinary Medicine, Department of Veterinary History and Deontology, TR-06110 Dışkapı, Ankara - TÜRKİYE

³ Kafkas University, Faculty of Veterinary Medicine, Department of Veterinary History and Deontology, TR-36300 Kars - TÜRKİYE

^a ORCID: 0000-0002-1180-3517

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Abstract

In early republican period through Ghazi Mustafa Kemal Atatürk's aim to raise the nation to the level of contemporary civilizations, a large number of acknowledged specialists were invited from numerous countries and these specialists provided remarkable contributions to the fields of veterinary medicine and animal husbandry in Turkey. These specialists performed visits to livestock establishments and laboratories across the country and carried out research and inspections and then submitted reports to the Ministry of Agriculture. The research on the history of veterinary medicine shows that there has been no comprehensive study that collectively evaluates all of the specialists invited from foreign countries for the improvement of the fields of veterinary medicine and animal husbandry. With this study, which was aimed to investigate the specialists that arrived in Turkey in the early Republican period (1923-1933), 14 brief data relating the specialists were prepared by using archival documents, Ministry of Agriculture Specialists Reports and other sources and 11 photos have been reached. It can be said that the reports of foreign specialists coming to Turkey are presented for the development of animal husbandry and veterinary medicine and that the various opinions and suggestions in the reports can be regarded as important contributions to the progress of the country.

Keywords: Foreign scientists, History, Republic, Turkey, Veterinary medicine

Cumhuriyet'in Erken Dönemlerinde (1923-1933) Yabancı Bilim Adamlarının Türk Veteriner Hekimliği ve Hayvancılığına Katkıları

Özet

Cumhuriyet'in erken dönemlerinde Gazi Mustafa Kemal Atatürk'ün önderliğinde ülkenin çağdaş ülkeler seviyesine çıkarılabilmesi amacıyla birçok ülkeden alanında uzman bilim adamlarının getirilmesi, veteriner hekimliği ve ülke hayvancılığına hatırı sayılır katkılar sunmuştur. Bu uzmanlar çeşitli illerde hayvancılık işletmelerini-kurumlarını ve laboratuvarları ziyaret ederek araştırma ve incelemelerde bulunmuş, birçoğu görüş ve önerilerini raporlar halinde Ziraat Vekâletine sunmuştur. Veteriner hekimliği tarihi araştırmaları kapsamında erken cumhuriyet döneminde (1923-1933), ülke hayvancılığına ve veteriner hekimliğe katkı sağlamak üzere yurt dışından ülkeye gelen bilim adamlarını ele alan bütünsel bir araştırma bulunmamaktadır. Bu dönemde, Türkiye'ye gelerek hizmetlerde bulunan bilim adamlarını saptamak ve katkılarını belirlemek amacıyla gerçekleştirilen çalışmada, arşiv belgeleri, Ziraat Vekâleti Mütehasşis Raporları ve diğer basılı kaynaklardan elde edilen veriler bir araya getirilmiştir. Bu uzmanlardan 14'üne ait bilgilere ve 11 uzmana ait fotoğrafa ulaşılmıştır. Türkiye'ye gelen yabancı uzmanların çalışmaları sonucunda hazırlanan raporların, ülke hayvancılığı ve veteriner hekimliğin gelişmesi amacıyla sunulduğu, raporlarda yer alan çeşitli görüş ve önerilerin ülkenin ilerleyebilmesi adına önemli birer katkı olarak değerlendirilebileceği ileri sürülebilir.

Anahtar sözcükler: Cumhuriyet, Tarih, Türkiye, Veteriner hekimliği, Yabancı bilim adamları



İletişim (Correspondence)



+90 474 2426807/5129, Mobile: +90 505 3596131



aliyig@gmail.com

INTRODUCTION

There have been lots of contributions to the Turkish veterinary medicine and animal husbandry by the scientist who came from different of countries since the variety of relations have been established during the 19th and 20th centuries [1,2]. The scientific aspects have been improved with the Turkish Republic which was founded after the World War I [3]. During the İzmir Economic Congress held in 1923, topics: increase on the number of animals, animal breeding and the preventing of diseases have been highlighted while the Lausanne Peace Treaty meeting was continuing which caused the Turkish War of Independence to end. "Five Year Program of Veterinary Services" prepared by the General Manager of Veterinary Services Mr. Ali Rıza (Erem) have been applied from 1924-1925 period; topics animal breeding, preventing of diseases, training of veterinarians took place [4]. In republican period -like many other fields- lots of well-known scientists have been invited to the Turkey for the improvement of veterinary medicine and animal husbandry. Accompanied by translators^{1,2}, these scientists have contributed to the Turkish veterinary medicine about educational issues, epidemics, animal health, breeding and husbandry.

Within the frame of modernization on higher education; German professors are assigned for reaching to the level of contemporary countries, and made various publications in Higher Institute of Agriculture (HIA) established in 1933 [1,2,5-7]. However, it is determined that there is no holistic research has been carried out about other foreign specialists who came from different countries. This study aimed to determine these scientists, their contributions and services to the scientific advancement of veterinary medicine in Turkey between the period of 1923-1933.

MATERIAL and METHODS

Main material of the study was the documents of Department of Prime Ministry Republican Archive and 240 pages of Ottoman scripted "Ministry of Agriculture Specialists Reports" (Ziraat Vekâleti Mütehasşis Raporları) attained from bibliopoles. The study has been limited only with the foreign specialists assigned by Ministry of Agriculture between the years of 1923-1933. Data for accessible 14 specialists have been evaluated chronologically according to the arrival time; the tags and the needed explanations of the original documents have been shown on the footnotes.

RESULTS

1. Prof. Dr. Paul Forgeot

Bacteriologist of Paris Pasteur Institute, Prof. Dr. Paul Forgeot

¹ BDA-CAB, 30. 18. 1. 2/12. 47. 19 (05.07.1930).

² BDA-CAB, 30. 18. 1. 2/13. 51. 16 (24.07.1930).

(Fig. 1-a) first arrived to the İstanbul in 1914 as the manager of "Veterinary Bacteriology Institution"; he had to go back his country because of the World War I. After the proclamation of Republic, he again came back from Paris to the Turkey by the invitation of Government and ordinarily served as a professor at the same place in Pendik between 1925-1929. At the same time, he regularly gave conferences and consultancies and took place in scientific research.^{3, 4, 5, 6, 7} Professor Forgeot reported⁸ his experiences and opinions about *pasteurellosis* and *salmonellosis* to the Ministry of Agriculture in 1927 and stated that the vaccine or serum was not prepared for goat pasteurella but chicken cholera for avian pasteurella, and pig peripheral blood serum and vaccination for pig pasteurellosis have been prepared. According to the Forgeot, vaccines can not be used for infectious pneumonia in goat because the vaccines of Russia have been tested on different animals. According to the Maurice Nicole and Mr. Refik, in this disease, microorganism called "*microbe dömorti (de morte)*" and other microorganisms could be important and infection should be evaluated again. Experiments should be carried out on laboratory animals instead of goats because the factor could cause death by changing its forms. Forgeot also gave detailed information and actions to be taken (even about staff procurement and adequate salaries) about infection.

2. Prof. Dr. Jan Rostafiński

Prof. Dr. Rostafiński (Fig. 1-b) was invited by the Turkish Republic from Warsaw in 1924 and made researches on Western Anatolian animals.⁹ According to the report¹⁰ of Rostafiński presented to the Ministry of Agriculture in 1927: He came to the Turkey by the invitation of Minister of Agriculture Mr. Şükrü (Kaya) in 1924. Accompanied with Şefik (Kolaylı) (Ministry of Agriculture Bacteriologist) and Mr. Yaşar (İzmir Agricultural Director) he visited Eskişehir (Çifteler Studfarm), Bursa (Karacabey Studfarm), İzmir (Agricultural School, Buca, Selçuk), Aydın (Söke), Denizli (Ömerli Stallion Storage), Afyonkarahisar (Dinar ve Sandıklı) and Ankara in order examine West Anatolian animals. He presented his evaluations about horses, cattle, sheep and promised an extra report. Most part of the report was about the situation of Karacabey Farm. Prof. Dr. Rostafiński stated that because of the lack of investigation; no evaluation has been made. He also thanked the Counsellor Mr. Ali Rıza for his benefactor efforts.

³ BDA-CAB, 30. 18. 1. 1/18. 23. 10 (28.03.1926).

⁴ BDA-CAB, 30. 18. 1. 1/25. 50. 14 (21.09.1927).

⁵ Anonymous: Profesör Dr. Forgeot. *Türk Baytarlar Birliği Dergisi*, (1): 167, 1936.

⁶ Anonymous: Bilim dünyasında bir kayıp. *Türk Vet Hekim Der Derg*, 28 (136-137): 29, 1958.

⁷ Batu A: Pendik Veteriner Kontrol ve Araştırma Enstitüsü (1901-1982). Pendik Veteriner Mikrobiyoloji Enstitüsü Yayın No: 6, İstanbul, 1982.

⁸ Dr. Forgeot's report. Türkiye Cumhuriyeti Ziraat Vekâleti, Mütehasşis Raporları Baytar Kısmı, İstanbul Hamid Matbaası, 1927, p.109-111.

⁹ Bekman M: Veteriner Tarihi. Ankara Basım ve Cildevi, Ankara, 1940.

¹⁰ Dr. Rostafiński's Report. Türkiye Cumhuriyeti Ziraat Vekâleti, Mütehasşis Raporları Baytar Kısmı, İstanbul Hamid Matbaası, 1927, p.1-31.



Fig 1. Some foreign scientists. a: Prof. Dr. Paul Forgeot, b: Prof. Dr. Jan Rostański, c: Dr. M. Çiki Ferans, d: Dr. Heurn, e: Prof. Dr. Hans Ganslmayer, f: Dr. Heufmeister, g: Dr. Felix Lestoquard, h: Dr. Franz Gerlach, i: Prof. Dr. Oscar Wellemann, j: Dr. Hackel, k: Dr. Tadeusz Vetölanj [9,10,11,12]

3. Dr. M. Çiki Ferans

Dr. M. Çiki Ferans (Fig. 1-c) has been invited from Hungary for the coordination of Karacabey Studfarm Horse Breeding Branch by Ministry of Agriculture and has been positioned as the Manager of Horse Breeding branch between 1925-1939.^{11, 12} In his report¹³ about the improvement of Turkish horses in 1931, he highlighted the need for a well coordinated horse breeding and also stated the importance of native horse breeding in consideration of the geographical position of the country. He also marked that hybridisation of Arabian Horses which seen to be similar to the native races, with local horses can give better results. Dr. Çiki Ferans has also stated his evaluations about pregnancy state of the studfarm horses on the Journal of Turkish Veterinary Association.¹⁴

4. Dr. Heurn

Zootechnist Dr. Heurn (Fig. 1-d) has come to the Turkey to perform scientific expedition by the invitation of Turkish Republic Government in 1926.⁹ In his report¹⁵ written by the order of Ministry of Agriculture; he stated his observations about Çifteler Studfarm and Seydi Plain/Mahmudiye/Eskişehir, Karacabey/Bursa, Adana, Gaziantep, Maraş, Karaköprü-Urfa and Diyarbakır respectively during

¹¹ BDA-CAB, 30. 18. 1. 1/27. 81. 20 (19.02.1928).

¹² BDA-CAB, 30. 18. 1. 2/34. 11. 6 (25.02.1933).

¹³ Çiki: Türkiye atlarının ıslahı hakkında rapor, Türk Baytarlar Cemiyeti Mecmuası, Gayri Mevku, (6): 131-133 and (7): 103-107, 1931.

¹⁴ Çiki: Karacabey Harasında kısıraklarda gebelik nispeti ve müddeti üzerindeki müşahedeler, Türk Baytarlar Cemiyeti Mecmuası, Gayri Mevku, (3):41-46, 1930.

¹⁵ Dr. Heurn's Report. Türkiye Cumhuriyeti Ziraat Vekâleti, Mütahassis Raporları Baytar Kısmı, İstanbul Hamid Matbaası, 1927, p.85-87 and p.96-108.

his travels with Mr. İhsan Abidin (Akıncı). Besides the positive findings, he also mentioned deficiencies related for the pasturage improvement and animal breeding. He also mentioned about lack of effort in animal breeding, fall through in terms of expectations of production, need for a local and high quality aimed policy, advantageous price of local animals instead of importing, etc. Dr. Heurn showed the public's interest for horse-racing and draw attention to the lack of equipment in Karacabey, importance of cooperation between military and civil veterinarians and their family relations, role of official veterinarians/agriculturists and task of government for providing qualified animals. Dr. Heurn also presented a statement in Ankara about the Report of Horse Congress held under the presidency of Acting Minister of Agriculture Mr. Cemil and indicated the risk of animal importing in terms of the future of native animal breeding.

5. Prof. Dr. Michailov

The Government of Turkish Republic made a decision about bringing Russian Scientist Ilya Ivanovich Ivanov or one of his suggested colleague to the Turkey in 1926¹⁶; after the invitation, Russian Scientist Prof. Dr. Michailov came to the Turkey and started to research about artificial insemination with veterinarians Nazım (Uygur) and Tevfik (Bulak) in Karacabey Studfarm¹⁷. In his report¹⁸ presented to the Ministry of Agriculture, he stated his mission as to apply his experiences about artificial insemination to the animals of Karacabey Studfarm. He remarked that 24

¹⁶ BDA-CAB, 30. 18. 1. 1/18. 20. 9 (16.03.1926).

¹⁷ Atabek S: Tiftik keçisi sürüsü üzerinde yapılan sun'î tohumlama. *Türk Baytarlar Birliği Dergisi*, (2): 275-285, 1936.

¹⁸ Dr. Michailov's Report. Türkiye Cumhuriyeti Ziraat Vekâleti, Mütahassis Raporları Baytar Kısmı, İstanbul Hamid Matbaası, 1927, p.87-95.

mares (three of them owned by the villagers) and two cows have been given to him and 17 mares have been artificially inseminated by five veterinarians. In addition of the report specifications: "name of the mare", "status of uterus and vagina", "name of the stallion", "time of artificial insemination", "amount of sperma", "qualities of sperma", "amount of sperma given to the mare for the first insemination" "amount of sperma given to the mare for the second insemination", "third insemination and considerations" have been presented respectively.

6. Prof. Dr. Hans Ganslmayer

Viennese Bacteriologist Prof. Dr. Hans Ganslmayer (Fig. 1-e) has served as a specialist in Ankara Etlik Military Veterinary Bacteriology and Serology Institute between 1926-1928. In his report¹⁹ to Ghazi Mustafa Kemal Pasha in 1928, Ganslmayer reported his views on the situation of military and civilian veterinarians and stated that the military veterinary profession is in European standards in general but that the plague disease seen in bovine animals is a big problem. While the military can not make a priority against this disease, the Turkish Government emphasized that the concept of the seriousness of the work was the result of the production of the necessary serum, but the amount of production was not sufficient. Dr. Ganslmayer stressed that the civil veterinary medicine is also very responsible and civil veterinarians should be adjusted to the new needs of modern Turkey. The Government of İsmet Pasha developed the animal breeding by taking this issue seriously. Dr. Ganslmayer stated that the number of specialists in the field of veterinary medicine is insufficient and suggested that free intervention to animal diseases, establishment of institutions providing drugs and serum against the plague and cooperation with an international organization should be regulated.

7. Dr. Heufmeister

Epidemiology Specialist Heufmeister (Fig. 1-f) served at the Ministry of Agriculture between 1926 and 1928⁹. Dr. Heufmeister stated in his travel report in 1926 that despite the lack of personnel in the İstanbul Veterinary Directorate, the work intensity was well managed and that the needs for service were met on time. He stated that there is a lack of personnel in the quarantine stations due to the struggle with cattle plague, the fact that the legislation is sufficient for quarantine but additional precautions such as baths to fight acarids in dogs and cats places where imported animals are to be kept should be present. He also mentioned that the slaughterhouses are in very good condition but detailed instructions on meat inspection are necessary. Dr. Heufmeister, regarding the Higher Veterinary School; stated that despite the impossibilities (substructure, instrument etc.) and distance from the city, education and animal health care were carried out very well, that the country was in dire need of

¹⁹ BDA-CAB, 30. 10. 0. 0/186. 282. 16 (12. 1928).

well-trained veterinarians, that the salaries of teachers had to be improved, and international research was important for enhancing experiences. In his assessment about the Pendik Veterinary Bacteriology Institute, he has stated that the Institute has shown that it is competent with domestic production and that the investments to be made in the Institution will provide a great contribution to the economy of the country for future periods. In addition to this, it has been suggested that the cattle plague serum should be produced with the construction of local barracks in places where the disease can be seen; instead of this institution in Pendik. Dr. Heufmeister, in his evaluations in Bursa (Mudanya Quarantine, Mudanya Veterinary Directorate, Bursa Veterinary Directorate, Karacabey, Mustafakemalpaşa-Kirmasti), Kütahya, Balıkesir, Manisa and İzmir emphasized that it is not possible to diagnose diseases such as piroplasmosis and barbitone which can not be detected by inspection because of the lack of microscopy and the importance of establishing a library to develop professional knowledge and skills to follow developments. Dr. Heufmeister has examined piroplasmosis, horse boil disease, mange, glanders, distomatosis, *streptococcus agalaxie* in goat, dog and cat, foot rot in sheep and the camel smallpox and stated that there are number of important responsibilities for veterinarians in terms of struggling these, in a time that the number of veterinarians are already insufficient. Dr. Heufmeister stated that the veterinarians in the field of fight against pandemic animal diseases must have sufficient equipment (tool bag, microscope etc.) and professional documents, participate in applications abroad to improve their professional knowledge and skills, make food and milk examinations in cities, be provided with appropriate salary. He also notified that these deficiencies are the reason for the lack of number of active veterinarians. He pointed out the importance of providing enough material to fight the diseases, giving notice to disinfection, transporting the samples to Ankara in case of disease, quarantine points and a simple laboratories in slaughterhouses at least. He also mentioned about the diseases: cattle plague, glanders, mange, lenfangitis epizootica and the importance of border control.

8. Prof. Dr. Oldenburg

An Agricultural Expert Commission from Germany was invited by the Government of the Republic of Turkey in 1927 to examine agricultural subjects and prepare a report on higher education of agriculture. This delegation, composed of 11 people under the presidency of Prof. Dr. Oldenburg²⁰, came to Turkey and performed examinations in 1928. Prof. Dr. Oldenburg presented a report²¹ about examinations as the chief of Commission and Government

²⁰ BDA-CAB, 30. 18. 1. 1/28. 19. 6 (01.04.1928).

²¹ Oldenburg Report: German Agriculture Specialists team's report about the studies between 1 April – 30 September 1928, *Türkiye'de Altı Aylık Kuruluş Çalışmaları*, Has been duplicated by Dr. Oldenburg; did not published (Widmann H: Atatürk ve Üniversite Reformu. Kabalıcı Yayinevi:159. p.66, 2000).

principal consultant. In this report, proposal that an institution should be opened especially for contemporary higher education and research has been suggested. This delegation, called the Oldenburg Delegation, took part in the preparations for the establishment of the Ankara HIA and also visited the Etlik Bacteriology Laboratory^[2,8].

9. Veberman

It has been determined that the Estonian Specialist Veberman came to Turkey in 1930 with the invitation of the government to reform and improve the fishery.²²

10. Jneral Hayni

Jneral Hayni, Director of the Meyzo Heygeş Studfarm²³ in Hungary, which was one of the most important studfarms of the world, came in 1930 with the invitation of the Government of the Republic of Turkey and took part in the establishment and administration of studfarms and stallion stores.²⁴

11. Dr. Felix Lestoquard

One of the chiefs of Algeria Pasteur Institute, Bacteriologist Felix Lestoquard (Fig. 1-g) was commissioned by the Government of the Republic of Turkey for three months in order to investigate suspicious diseases of Merinos sheeps in Karacabey Studfarm in 1931.²⁵ He recognized internationally for his research on piroplasmosis, and has extensively investigations on various animal diseases, including "sheep malignant anemia, sensitivity of buffalos to the cattle piroplasmosis and pernicious anemia of sheep and goats". Dr. Lestoquard had general determinations about laboratory conditions of studfarms, sheep's presence and viruses in his report.²⁶ In the first part of the report, presence of piroplasmosis in imported Merinos's, causes of pernicious anemia in sheep and goats, studies on their diagnosis and treatment and suggestions took place and in the second chapter, necessary precautions against diseases have been explained. During his time in Turkey, Lestoquard also gave a lecture in İstanbul Veterinary School besides these examinations²⁷.

12. Prof. Dr. Franz Gerlach

Dr. Franz Gerlach (Fig. 1-h) whom Professor of Mödling

²² BDA-CAB, 30. 18. 1. 2/12. 44. 13 (21.06.1930).

²³ BDA-CAB, 30. 10. 0. 0/185. 278. 18 (20.12.1931).

²⁴ BDA-CAB, 30. 18. 1. 2/13. 53. 17 (29.07.1930). In this archive document, Jneral Hayni has not been titled as specialist, however, the statements "... who is capable of management of studfarms and stallion stores" and "expenses from the class of specialists..." is reviewed as that Jneral Hayni is a specialist. Besides that, because of Jneral Hayni is mentioned as specialist in Footnote: 21, he has been included to the study.

²⁵ BDA-CAB, 30. 18. 1. 2/21. 46. 10 (24.06.1931).

²⁶ Cezair Pastör Enstitüsü Lâboratuar Şefi Lestokar'ın Karacabey Harasındaki Hastalıklar Hakkında Tetkik Raporu. Türk Baytarlar Cemiyeti Mecmuası, Gayri Mevkuat, (12): 2-31, 1933.

²⁷ Golem SB: Felix Lestoquard (1797-1940). *Türk Veterinerler Cemiyeti Dergisi*, 13 (4): 93-95, 1945.

Bacteriology Institute, Vienna first came to Turkey in 1932 and studied on the scientific studies of Bacteriological Institutes.²⁸ Prof. Dr. Gerlach published his research on epidemics in Turkey in 1933 and then came to Turkey for the second time to serve as a specialist in the Pendik Bacteriology Institute between 1951 and 1953.^{7,9,29}

13. Prof. Dr. Oscar Wellemann

Rector of Zootechny of Budapest Veterinary High School, Dr. Oscar Wellemann (Fig. 1-i) was invited to Turkey in 1932³⁰ and 1933³¹ by the Government of the Republic of Turkey to investigate and report on the activities of the country animals, the measures to be taken, examine the studfarms, stallion stores, sheep pens and cowships. Dr. Wellemann made researches about horse breeding in Turkey and presented his findings to the Ministry of Agriculture in two reports³², which were published in 1938. In his first report, written in 1932, he informed to the authorities about seven weeks of his visits and his observations on features and zootechnics of state studfarms and stallion stores. The first part of the report gives general information; it has been mentioned that animal husbandry has an important place in the economy of the country, improvement of pasture and meadows, increase of nutrient content of animal feeds and widespread cultivation of agriculture among large populace. He also emphasized that Turkey has well-adapted precious animals and therefore specialists should be trained and animals should be improved under regular selections and good care. Information has been given about animal existence, species, qualities and breeding with the topics of "Horse Breeding", "Cattle Breeding" and "Sheep Breeding". Dr. Welleman stated his observations concerning Karacabey, Çifteler, Sultansuyu Studfarms, Uzunayla, Mercimek, İnanlı Stallion Stores and Cowship, Edirne Stallion Store and Kırklareli Stallion Store. In the second report of Dr. Wellemann to the Minister of Agriculture in 1933, he expressed his appreciation for consideration of his suggestions and the developments in Karacabey Studfarm. He also expressed negative and positive assessments about stallion stores in İstanbul, Bursa, Erzurum, Kars, Karaköse, Uzunayla, Ankara and emphasized the importance of planning and programming.

14. Karl Kahl

German Specialist Karl Kahl³³ came to Turkey in 1933 with the invitation of the Government and worked on the construction and repair of sensitive glass materials at the Ankara HIA.

²⁸ BDA-CAB, 30. 18. 1. 2/27. 23. 7 (04.04.1932).

²⁹ Kolaylı Ş: Bakteriyoğ Dr. Frantz Gerlach'ın memleketimizden ayrılması münasebetiyle. *Türk Vet Hekim Der Derg*, 23 (78-79): 716-719, 1953.

³⁰ BDA-CAB, 30. 18. 1. 2/28. 35. 1 (01.05.1932).

³¹ BDA-CAB, 30. 18. 1. 2/38. 56. 8 (05.08.1933).

³² Dr. Oscar Wellemann, Ziraat Vekâletine Verilen Raporlar, Hüsûtabiat Matbaası, İstanbul, 1938, 52p.

³³ BDA-CAB, 30. 18. 1. 2/36. 32. 2 (26.04.1933).

DISCUSSION

It has not been possible to reach all the names and numbers of foreign specialists who contributed to the veterinary profession and animal husbandry of Turkey. Kolaylı [13] evaluated that: *"The number of the European specialists who were brought after the Republic period is only known by God."* This assessment also explains the greatness of the number of specialists. Dinçer [2] also reported that 40 scientists have been invited until 1943; and Batu [14] stated that almost 30 foreign specialists invited only for the Pendik Veterinary Control and Research Institute between 1965 and 1982. Considering the increasing number of institutions related to veterinary medicine and animal husbandry, it may be considered that numerous of foreign specialists came to Turkey may have taken part in various institutions and organizations belonging to veterinary medicine and these statements also reveal the limitations of the study.

In some of the sources identified by the study [9,15,16-18] it was reported that Dr. Hackel (Fig. 1-j), Prof. Dr. Tadeusz Vetülani (Fig. 1-k) and Prof. Dr. M. Adamezki came to Turkey in the same period and for similar purposes. Dr. Hackel was appointed as a surgical specialist at the Military Veterinary Practice School served there from 1926 to 1930 while he was the head assistant of the Vienna Veterinary School Surgery Clinic [9,15]. Prof. Dr. Tadeusz Vetülani, Director of Etienne Bathory University, Animal Breeding Institute, came to Turkey in 1929 and 1934 and prepared reports on the origins and breeding of domestic animal races, especially Arabian horse, sheep and goat. Dr. Vetülani also visited Ankara HIA [16,17]. Upon the demand of veterinary and agriculture schools and the invitation of the Minister of Agriculture in 1933, Zootechnist Professor Dr. M. Adamezki came to the Turkey from Vienna and gave a lecture to the students of the Higher Veterinary School in Darülfünun. Dr. M. Adamezki gave some informations about the breeding and origins of animal races, especially sheep and goats. He has also visited the Karacabey Studfarm [18].

Bekman [9] showed the given importance to the animal breeding and veterinary medicine on early republic period in his statement: *"One of the aims of the newly established state was populism. Government aimed every business, every enterprise to be very productive for the benefit of public, villagers and breeders; in this way, veterinary works was also aimed to be very effective. To that end, foreign professors and high scholars have been invited from abroad to investigate the hometowns and show measures about animal welfare and treatment; receive reports on the necessities of animal diseases in the country, and on the other hand, commissions composed of important persons were working for veterinary services to be based on productive principles and walk through error-free roads."*

Yaşar [19] reported that internationally recognized foreign

scientists in their field, among them Prof. Dr. Michailov, Prof. Dr. Welleman, Dr. Çiki and also one of them Ilya Ivanovich Ivanov were assigned to studfarms since 1924. Foote [20] reported that Russian Scientist Ilya Ivanovich Ivanov is known as the first person to perform modern artificial insemination technics in farm animals in 1922. In the study, invitation of Ilya Ivanovich Ivanov, and Prof. Dr. Ganslmayer's presentation of a report to Ghazi Mustafa Kemal Pasha *"in person"* in 1928 can be regarded as an indication of the importance of the newly established Republic to the science and scientists. As Yaşar [19] points out, it can be said that since the first years of Republic, has been shown an effort in order to provide a modern sence of service to studfarms for reach western standart.

Bekman [9] reported that scientists gave a lot of detailed reports on their work, that consideration of specialist reports and as a result of the activities of the country's veterinarians, an increase in veterinary work began to be felt day after day. According to Dinçer [21] and Özkul [22] Prof. Dr. Michailov's initiative in the artificial insemination research studies and applications in Turkey since 1926 was the second application after the Soviet Union in the world. With the date Ivanov or a specialist to be appointed is invited, Prof. Dr. Michailov's arrival date to the country is the same (1926), therefore it can be argued that Michailov may be the specialist recommended by Ivanov. Osmanağaoğlu and Melikoğlu [23] stated that with the invitations of specialists Prof. Dr. Oscar Welleman and Dr. Çiki; they have contributed for the improvement of zootechny and breeding institutions; Menteş Gürler et al. [11] stated Prof. Dr. Rostafinski's contributions to the animal husbandry with his studies. It is possible to say that these findings support the data of the reports in the study and that the arrival of scientists to our country is a great gain for the reform movements. In fact, the Studfarm and Breeding Institutions established after the proclamation of the Republic have achieved considerable success in the following years, and foreign scholars visited these institutions reported such successes in their reports [24]. It is understood that with the cooperation of foreign specialists and Turkish Veterinarians, the knowledge of western countries is transferred to Turkey, and the applications made with new techniques and methods have increased the quality of veterinary medicine and animal husbandry. In the following years, Kolaylı [13] reported that *"reports given by the specialists brought after the Republican era have been taken to a corner. There is no doubt about that"*. It may be though that there was a decline in veterinary medicine and animal husbandry in that period, but it can only be determined in future studies that there has been a regression in the following periods.

Among the invited specialists Rostafinski, Çiki and Welleman emphasized the importance of domestic breeding and domestic investment and in this way, it is foreseen that domestic crops will increase in yields and therefore

domestic production. Today, animal importation is not recommended in terms of sustainability of production as well as of protection of national interests ^[25], and the Ministry of Food, Agriculture and Livestock of Turkey forbids the import of animals from various countries due to diseases ^[26]. It can be said foreign scientists' repudiate of import policies meaningful and important to think of when the risk of emerging new diseases due to the risks of imported animals in terms of resistance and climatic adaptation is considered.

It can be said that the reports of foreign specialists coming to Turkey are presented for the development of animal husbandry and veterinary medicine and that the various opinions and suggestions in the reports can be regarded as important contributions to the progress of the country.

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