

GRADUATE OF RIGA POLYTECHNIC INSTITUTE, AGRONOMIST BORIS JENKEN (1873–1943)

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Summary. The article is dedicated to the life and creative heritage of the graduate of the Riga Polytechnic Institute (RPI; 1900) agronomist Boris Jenken (*Борис Карлович Єнкен*; 1873–1943). B. Jenken was an organizer, scientist, breeder, educator, historian and bibliographer of agrarian science of the Ukrainian national agriculture. The study was carried out using not well-known and recently distributed documents for use in the archives of the Russian Federation and the Ukraine, as well as monographs and publications in periodicals. The article analyses the life and activity periods of the researcher related to the organization and implementation of national agricultural trials, mainly in the field of breeding and seed growing. The emphasis was placed on B. Jenkens' scientific and pedagogical work in Ukraine: in Kharkiv (1908–1919; 1925–1926; 1930), Odessa (1924), Maslovka (1927–1929), and Kyiv (1928–1929).

Keywords: Riga Polytechnic Institute, Boris Jenken, agronomy in the first half of the 20th century in Ukraine.

Family and career of Boris Jenken in Tsarist Russia

Boris Jenken was born on 24 January 1873 (in the old style 12 January), in the city of Tambov in the family of lawyer (sworn advocate) Karl Jenken (*Карл Августович Єнкен*) of German and Swedish origin. His mother Olga Jenken (*Ольга Федорівна Єнкен*) was born in the family of a landlord in Poltava [1]. In 1892, B. Jenken completed seven classes in Real School in Tambov. From the year 1893, he studied in the Department of Agriculture of the Riga Polytechnicum (RP), which in 1896 was reorganized into the Riga Polytechnic Institute (RPI).

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Figure 1. Boris Jenken in the 1890s [2].

During his studies, B. Jenken was fascinated by revolutionary ideas. In 1895, he was taken under police surveillance and was temporarily suspended from the institute for keeping and distributing illegal literature [3]. B. Jenken was excluded from studies «due to a charge of a crime against the state» by a regulation of Head of the Chancellery of the Ministry of Education signed on 20 December 1897. Boris Jenken was denied «joining any educational institution», as well as attending a pedagogical practice [4]. It was only thanks to his father who intervened in the event that the situation was solved. On 29 January 1900, he graduated from the RPI with Diploma No. 106 and Praise Certificate No. 419, dated 27 March 1900 [5].

Karl's brother Fyodor Jenken (1875–?) started to study in the Department of Chemistry of the RPI in 1897, he was excluded from the institute for non-payment of study fees in September 1901 [6]. Another Karl's brother Sergey Jenken (1876–1962) was a well-known photographer in Tambov.

After graduating from the RPI, B. Jenken went to South Russia, studied the agriculture of the Kuban region and set up a winemaking farm near Anapa. According to the agreement with the Petrovsk Land Department of Saratov Governorate signed on 20 February 1900, he worked as a district agronomist. There he first proved himself as a prominent national agronomist of public agronomy. It should be noted that during this period agronomy began to develop intensively. On 27 July 1902, in the meeting of agronomists of the Saratov Governorate, B. Jenken reported on the agricultural experimentation system in the governorate [7]. The report was published in the proceedings of the meeting, and draw their attention of specialists. Beginning from 3 January 1903, according to the request of the Volsk Administration of the Saratov Governorate, he became the agronomist of the Governorate. On 1 November 1903, the Tambov District Administration asked the governor to appoint B. Jenken their agronomist. As there was no response received within two weeks, as foreseen by the law, on 8 December 1903, the administration decided

to entrust him with responsibilities of an agronomist with a monthly wage of 100 rubles [8]. In this post, B. Jenken actively promoted and disseminated the latest knowledge in agronomy. This is evidenced by the report of the Tambov District Administration of 6 October 1904, where it is said: «.. during the short period of his service, agronomist Jenken demonstrated great activity, and, this year, on his own initiative organised sowing with row sowing machines, and and demonstrated the McCormik mower at several farms, which undoubtedly brought a lot of benefits.» At the meeting of the Tambov District Administration on 1 October 1905, it was noted that the agronomist B. Jenken is a meritorious person, respected by everyone [9]. In 1904 and 1905, B. Jenken wrote a series of reports and articles on the need to improve the organization of agronomic assistance. Several of his articles were published in the newspaper «Тамбовский голод» («Tambov Hunger»), in which he was one of the founders (1904) and one of three editors. Despite the great contribution to his homeland, he was dismissed from the office on 9 February 1905, by the Governor's request as a person who had previously «.. compromised himself as politically unreliable». In this situation, B. Jenken wrote a letter to Head of the Tambov District nobility Vasily Petrovsky-Solovovo (*Васи́лий Миха́йлович Петров-Соловово́*; 1850–1908) informing him of the intention to request the District Council meeting «to listen .. and to renew the rights of an employee». On 2 October 1905, the meeting, in the context of a written request by B. Jenken, decided: «To lodge a complaint to the Senate of the Government regarding the actions of the Tambov Governor, by releasing the agronomist Mr. Jenken from the service [10].»

On 4 May 1905, B. Jenken at the invitation of the Atkarsk District Administration began to work as an agronomist of the district, but in December, he was detained for four months for participating in the revolution of 1905, as he had participated and spoken at the meeting and had published its decisions [11]. After that, he stayed abroad for a short time [12].

Between October 1906 and June 1907, B. Jenken carried out the duties of an agronomist in the Saratov Governorate. In this post, along with other scientists, he actively participated in soil climatic studies and addressed organizational issues related to the creation of the famous Saratov Experimental Station (currently state educational institution «Agricultural Research Institute for South-East Region»). Officially, the station began to operate on 15 March 1910. The scientist published a number of articles on problematic issues in the magazines of Saratov Governorate and in the city newspaper «Земская газета» («District Magazine»). B. Jenken left the position after his non-approval by the

Governor of Saratov for his subsequent period. Therefore, by May 1908, B. Jenken had been forced to run a wine-producing company in Anapa.

In 1909, B. Jenken was convicted again – according to the decision of the Saratov Court of Justice he was detained for one year, from 29 December 1909 to 29 December 1910.

From 1 May 1908 to 19 July 1919, B. Jenken's scientific work was connected with the Kharkiv Association of Agriculture and Agricultural Production. First, he was elected Deputy Director of the specialized breeding station in Kharkiv (the first one in Europe) of the Association. He participated in all preparation works for the station (searched for suitable fields for tests, developed programs, laid the foundations for stationary testing, participated in the construction, etc.) [13]. The scientist participated in the creation of the Kharkiv Breeding Station Committee. Its organizers, total of 21 people, had planned that in 1913 the station would become the first Department of the Agricultural Testing Station (ATS) of the Kharkiv Region.

On 17 December 1908, at the general meeting of the Kharkiv Agricultural Union (KAU), after the presentation of entomologist I. Yemelianov (*И. В. Емельянов*) «Fighting with pests in the United States», it was B. Jenken together with A. Rabinovich (*А. М. Рабинович*) who initiated «.. a motivated request to the Main Land Management and Agricultural Administration to establish an entomological station near Kharkiv» [14]. In addition, the scientist published an invitation in the newspaper «Южно-Русская сельскохозяйственная газета» («Southern Russian Agricultural Newspaper», Issue No. 56, 1909) to supply winter and summer seeds. He also used personal contacts for this purpose and addressed the testing institutions. In addition, B. Jenken personally worked on «the supply of 100 thousand bricks .. for future construction needs», he also dealt with «.. purchase of live and real equipment» and the purchase of oats [15].

Along with the main functions, B. Jenken prepared 14 article volumes and 21 book for the publication «National Encyclopaedia of Scientific and Practical Knowledge» (1910–1912). B. Jenken prepared the 2nd part of encyclopaedia «Agriculture» of the 4th Volume «Farming» with a preface by Professor Pjotr Budrin (*Пётр Васильевич Будрин*; 1857–1939). The initiator of the encyclopaedia was the Kharkiv Association of Promoting Literacy in order to promote citizens' education [16]. More than 100 scientists participated in the issue devoted to the 40th anniversary of this association (1869–1909), and after it was developed following the principles of French encyclopaedia. Together with the station director P. Budrin, B. Jenken became an active participant in the Russian Congress of Breeders and Grain Workers, which took place in Kharkiv from 10 to 15 January 1911 [17]. At the request of the Organizing Committee

of the Congress, he presented several fundamental reports, which were published [18]: 1) «Selection and its Importance in Foreign Countries (A Brief Historical Review and Compilation of Contemporary Scientific and Practical Selection in Western Europe and the United States of America)» – with this report he became the first historian in this field; 2) «The Issue of organising agricultural plant breeding in Russia» in which the author proposed to create an organized breeding system; 3) «The issue of controlled activities of breeding stations» in which he discussed the most important tasks of plant breeding sections; 4) «On the Establishment of the Agricultural and Grain Selection Society in the framework of KAU in southern Russia»; 5) «The necessity to organize congresses of Russia in various fields of experiments and to organize congresses (committees) in different regions» – with this report B. Jenken demonstrated his experience in the methodology of organizing national trials. During the congress, he met with the world-famous Russian geneticist, botanist, and breeder Nikolai Vavilov (*Никола́й Ива́нович Вави́лов*; 1887–1943), with whom he later corresponded, while the eldest son of B. Jenken, became a pupil of N. Vavilov.

After the Congress, on 19 January 1911, and the report of the Society's President S. Kuznetsov (*С. М. Кузнецов*), the board of the KAU decided to send B. Jenken on a mission to Germany, Austria, Denmark and Sweden to get acquainted with the organization of breeding establishments and grain farms and with methodology, as well as with breeding and grain marketing experience. For this purpose, the Association allocated 900 rubles, and the Department of Agriculture – 2000 rubles. Before leaving on 2 February 1911, B. Jenken received support from the KAU Harkov Breeding Station for planting orchards and ornamental garden [19]. Being abroad from 16 March to 5 June 1911 and from 1 September 1911 to 19 February 1912, he worked at the Institute for Nutrition and Starch at the Bakery Processing Station in Berlin, as well as in breeding stations in Halle (Germany) and Swalef (Sweden). In addition, he studied for two semesters at the Department of Agriculture, University of Halle. From 18 to 22 September 1911, he attended the 4th International Genetics Conference in Paris as the only delegate from Russia [20].

B. Jenken attended a brewery exhibition in Berlin. He collected the results of the traineeship on behalf of HLB in a brochure «*Письма из заграницы (заметки селекционера)*» («Letters from abroad (breeder's notes)» [21]. After returning to his homeland on 31 August 1911, he wrote a letter to the botanists and Head of Applied Botany Bureau of Agricultural Scientific Committee of the Ministry of Russian Farmers and State Property Robert Regels (*Роберт Эдуардович Регель*; 1867–1920), confirming his willingness to continue cooperation in 1910 [22].

B. Jenken gained tremendous authority and respect in professional community, representing the Kharkiv Breeding Station with a fundamental paper «Development of Test Practice in Russia and Its Current Situation» at the meeting of the Poltava Agricultural Association on 28 October 1909. The meeting was organized by the Poltava Agricultural Association and was dedicated to the 25th anniversary of the Poltava field trial. B. Jenken's paper were published in the proceedings of the meeting, and thousand copies of the brochure were published in Poltava in 1912. The scientist became the first classical historian in his native country, specializing in agricultural experiments. From 20 to 26 January 1912, he participated in the District Congress in St. Petersburg, which was devoted to breeding and seed-growing issues [23], but from 24 to 26 June – in the first Congress in Rostov-on-Don, dedicated to the practice of agricultural experiment in Russia's south-east European part and in the North Caucasus [24]. From 11 to 12 February 1913, B. Jenken participated at a meeting in St. Petersburg devoted to agricultural practical trials. The scientist theoretically justified the need for the creation of special breeding and testing stations for wild and local breeding farms [25]. Consequently, he actually laid the foundations for modern genetic databanks. It should be noted that now this function in Ukraine is fulfilled by the successor of the tradition of the Kharkiv Breeding Station – Plant Production Institute named after V. Yuriev. In addition, during intensive discussions with the aforementioned R. Regel, as well as breeder Viktor Talanov (*Виктор Викторович Таланов*; 1871–1936) and others, B. Jenken proved that it is necessary to establish a special laboratories for the evaluation of grain quality not only at the Imperial Agricultural Museum but at each breeding station or at the breeding departments of the regional stations. He personally created a number of such laboratories in Ukrainian cities Odessa, Maslovka, and Kyiv.

In September 1913, B. Jenken participated in the First Congress of Russian Agriculture in Kyiv with three reports: «The Importance and Methodology of Individual and Mass Selection», «The Challenge of Crossing in Conditions in Russia» and «The Extreme Task of the Study of Agricultural Varieties» [26; 27]. He was first elected Vice-President at the Congress, but after the sixth session of the Agriculture Section he became its Chairman. After P. Budrin's move to St. Petersburg in 1912, B. Jenken was the director of the Kharkiv Breeding Station until 1913.

In 1913, the station was reorganized into a subdivision of the Kharkiv Regional Agricultural Experimental Station. B. Jenken became Head of the Department of Breeding, but from 1914, he fell ill with tuberculosis and worked as a simple scientist [28]. He not only carried out a huge organizational work to promote the development of the station, but also engaged in selection under the direction of his teacher P. Budrin,

becoming a pioneer among scientists working with sunflowers (from 1909). When the breeder of sunflowers Vasilij Pustovoit (*Васи́лий Степа́нович Пустово́йт*; 1886–1972) was asked why he had chosen to work on breeding, he replied that only two scientists – Jevgenija Plachek (*Евгения Михайловна Плачек*; 1878–1955) in Saratov and Boris Jenken in Kharkiv were working in this field. It should be noted, that the first studies on sunflowers should be dated from 1895 to 1896, initiated by the Department of Agriculture in Lohvicki Pilot Field under the leadership of P. Lomonosov (*П. М. Ломоносов*), Director of the Department of Poltava District. The greatest progress on this issue was achieved from 1905 [29].

On 16 March 1912, on behalf of KAU, B. Jenken set up a station and, prior to his departure from Kharkiv, led the country's first coordinating organ – the Committee of Agricultural Plants. He carried out a huge experimental breeding work at the Kharkiv Experimental Station. His genetic, methodological and breeding objects, along with sunflowers, were winter rye and barley. Regarding rye, the scientist ended his research by creating a classification of ears of cereal, and giving their botanical and agronomic characterization. In 1914, he initiated advanced expeditionary studies from the Botanical and Agro-Biological point of view in the Kharkiv region to the order of the Kharkiv Governor, not only in the Russian Empire, but also worldwide. In this study, 231 sample of winter wheat was identified, most of them belonging to the red non-awn type. During this activity, he also described the cultivars of regional and original foreign rye. Despite the fact that later sunflower culture historians saw B. Jenken's attempts to increase the amount of oil in seeds as failure [30], he ended a study on the effects of self-pollinating and began to find out what kind of environment is needed to ensure sunflower isolation. In addition, for the first time in Ukraine, the domestic sunflower variety '*Zelionka*' ('Kharkiv 76') and 'Kharkiv 27-82' were created, which successfully replaced the low-yielding and low oil creating varieties. They were zoned in 1927 and 1930 [31]. By conducting selective experiments with sunflowers, the scientist gained a large amount of perspective on this cultural material. In addition, B. Jenken together with other breeders created a new winter rye breed '*Niemishlianska 953*', which was zoned in 1923. The main features of selection were: glassy grain, short straw and S type of ear «flat, lyre forms and B». The intersection of the '*Niemishlianska*' and '*Perkuss*' varieties was started and a study of fertilizer effects on them was completed. In 1912, B. Jenken set up the concept and prepared the first issue of a new scientific journal devoted to KAU selection and seed farming, «*Сельскохозяйственное растениеводство юга России*» («The Agricultural Plant Production of

Southern Russia»), which was not issued due to lack of funds and illness of the scientist.

B. Jenken was treated abroad from 1 July 1914 to 5 May 1915. Returning to Russia, in June 1915, he wanted to become the Assistant Head of the Department of Breeding of the Agricultural Station of Kharkiv Region, but for political reasons he was denied the post.

Among other B. Jenenkin's achievements, the project on seed and grain storage in accordance with the best European standards commissioned by the KAU for the local breeding farm has to be mentioned. Since 1896, KAU has been publishing the newspaper «Южно-Русская сельскохозяйственная газета» («Southern Russian Agricultural Newspaper»). Starting from No. 15/16 of the newspaper in the year 1908, B. Jenken became Head of the Department of Local District Society Life and Government Decisions and held the post of its secretary for half a year. In this post he demonstrated excellent bibliographic skills in the field of literature, paying attention to needs of the breeding and seed farming. In 1908, this newspaper published 21 article and two reviews of the scientist. The following year, the newspaper published 20 B. Jenken's publications – 15 articles and five reviews. From 1908 to 1918, the newspaper published 57 different articles by B. Jenken. In addition, B. Jenken in 1908 and 1909 wrote eight publications for the magazine «Хлебороб» (in Ukrainian: a farmer). Many of them are signed with cryptomites B. K., B. E., B. and E., and are devoted to the field of testing and better implementation in production. In other publications, the author informed about the latest foreign experience by translating information – a scientist fluently translated from German and French, and also understood English. For some time, B. Jenken was an editor of «Хлебороб» and of «Южно-Русская Сельскохозяйственная Газета» («Southern Russian Agricultural Newspaper») – in the first edition of the Russian Empire, publishing periodic and systematic reviews on breeding and seed farming literature. In addition, from 1913, the scientist became a member of the monthly scientific journal «Агрономический журнал» («Agronomical Journal») and published in it. This edition was also established by KAU. Still, his articles, signed with cryptomites B. and E., were published in «Сельскохозяйственный Вестник Юга-Востока» («Southeast Agricultural Ambassador») (1911–1914).

In 1914, with the support of the Agricultural Plant Committee in Kharkiv, the first discussion on beer barley took place in the Russian Empire. In his «Kharkiv period», B. Jenken became the initiator of an intermediary office for ordering and servicing machines and apparatus [32]. Both the Agricultural Plant Production Committee and the Bureau became mandatory units at all agricultural stations.

Activities in Russia and Ukraine (1917–1943)

There is less information about B. Jenken's work in the Russian post-empire between 1917 and 1920. Some information can be found in the periodicals of the period when B. Jenken continued his work as a reviewer and bibliographer. These include the KAU and the Central Ukrainian Agricultural Cooperative Union magazines «Хлебороб-Кооператор» (in Ukrainian – «Farmer-Cooperator»), «Сельский Хозяин» («Country Farmer») and «Агроном» («Agronomist»). The author of the article has found five of his written reviews of publications dealing with the organization of agricultural cooperatives. Regarding the organizational work, the mess in economic and administrative life in 1917 and financial crisis of institutions in 1918 exacerbated the issue not only of the functioning of sectoral institutions, but also of the testing industry as a whole. To analyse the situation, the Kharkiv District ATS organized a consultation on 18–19 December 1918, which was devoted to the testing field. It also featured a report by B. Jenken. He spoke about the organization of the testing industry and proposed to create a special institution combining the activities of testing institution in the region [2]. Thus, he was the first to put forward the idea that there should be a specific national coordinating structure for the operation of experimental companies of the industry. By the way, this proposal by B. Jenken was implemented in Ukraine after the complete consolidation of Soviet power – by the Decree of the People's Commissar Council of Soviet Socialist Republic of Ukraine on 15 April 1921 [33]. The Agricultural Testing District Administrations – Kharkiv, with branches in Poltava, Kyiv, Yekaterinoslav and Odessa, were established.

On behalf of the Plant Production Committee, with the participation of the Institute of Agriculture and Forestry of Novooleksandrivka (nowadays – the territory of Poland), the Department of Agronomy of the University of Kharkiv and the Kharkiv Oblast ATS, B. Jenkens initiated the development of training courses for seed instructors in the first half of 1919 [34]. The studies lasted two semesters: the first part was theoretical (from January to March), the second – the practical (from April to September). The best listeners were awarded scholarships of the Ministry of Agriculture, and of district and public institutions. B. Jenken prepared Statutes and Programme of the courses. Such courses were the first in Ukraine. B. Jenken, until his departure to Krasnodar, ran the courses, lectured and conducted practical classes by himself.

Due to the rapid deterioration of his health, B. Jenkens was treated from 19 July 1919 to 17 May 1920 in Anapa, where he was involved in the cultivation of grapes and the cultivation of wines on his six desyatina. After he recovered, until 16 August 1921, he worked as a specialist

in vineyard and gardening, later – as Head of the Department of Agronomy in the Anapa District Sovkhoz Administration. From 16 August 1921 to 1 December 1924, B. Jenken worked as Breeder-specialist in the Krasnodar District and as Secretary of Planning Commission of Land Administration of the Kuban-Black Sea Region. From 5 May 1924, he held the position of Chief of the Division of Insurance for Losses Caused by Hail; until 14 July 1924 he worked as a senior insurance inspector; until 20 December 1924 he was a lecturer on basic agriculture and Head of field studies at the Kuban Pedagogical Institute; and until 10 January 1925, he worked at the Pedagogical Technical School. In addition, he lectured at the North Caucasus Agricultural Technical School (from 1921 to 1922, when it was closed).

Agronomist B. Jenken was the Chairman of the Scientific Committee of the Research Council of the Kuban Region (later it was transformed into a independent scientific research institute) and the Secretary of the Agricultural Section and Chair of the Breeding and Seed Production Sub-section (1921–1924). In 1923 and 1924, he was a docent and taught breeding and partial farming as well as the basics of farming in the Kuban Agricultural Technology School. By 3 July 1924, he also ran the field of testing. One year B. Jenken worked as a breeding specialist in the Selection Department of the Kuban District ATS, half a year (before he moved to Rostov) he headed the Agricultural Section of the Kuban-Chernomorsk State Editorial Board. It published a number of popular science brochures for agronomists.

The development and realization of an elite seed farm project in Anapa became the main achievement of life and creativity of B. Janeken in Krasnodar. In addition, he set up a seed organization plan in Kuban together with the Central State Seed Office, a network of female farms and breed trial fields, as well as a state control project on the production and marketing of seed material. He published his findings in this regard in regional periodicals: «Красная звезда» («Red Star»), «Сельскохозяйственная кооперация» («Agricultural Cooperation»), «Памятка табаководы Кубани» («Cuban Tobacco Breeder's Instruction»), «Красное знамя» («The Red Flag»), and others, and also delivered presentations at professional meetings of an organizational and research nature. On behalf of the Kuban Branch of the Russian Agronomic Society, he headed the editorial department and produced a number of magazines that, unfortunately, were not issued due to lack of funds.

Within the frame of the scientific work, B. Jenken also engaged in public work: as chairman of the Anapa Agricultural Technicians' Professional Association, he participated in the work of the Labour Protection Commission (1920–1921) and in its Audit Commission. Later, he was the deputy chairman of the local council of the Kuban-Chernomorsk Region

in Krasnodar (1921–1923). Due to the death of both sons and the two-year-old daughter, B. Jenken had to change the environment. All the more, because the Ukrainian Government did its utmost to bring ethnic Ukrainians back to their homeland, creating favourable conditions for them. In 1924, for example, academicians Aleksey Sokolovsky (*Олексій Никанорович Соколовський*; 1884–1959) [35] and Yevgeny Bobko (*Євген Васильович Бобко*; 1890–1959) returned to Ukraine in order to carry out scientific and educational work at Christian Rakovsky's Kharkiv Agricultural Institute. On the basis of institute, it was planned to open a branch of the Lenin All-Union Agricultural Academy in Ukraine [36].



Figure 2. Son of B. Jenken's Vadims Jenken [2].

On 1 December 1924, B. Jenken returned to Ukraine, became Head of the Main Laboratory of the State Bread Inspection of the Odessa Port and Region and held the post until 29 July 1925. During this time, he summarized his research results in the field of scientific classification of bread and developed methodological basis for laboratory activities. Then he moved to Kharkiv, where, by 1 September 1925 was an editor of the Ukrainian Seed Society bulletin, and ran its scientific department and the museum [37]. While working in the society, he sent a letter to the botanist N. Vavilov requesting «to take under his wing» his son Vadim Jenken (*Вадим Борисович Енкен*; 1900–1981), and also invited to organise the fourth All-Union Selection and Seed Farming Congress, following the example of the analogical congress in Kharkiv in 1911 [38]. N. Vavilov supported this idea. Due to the liquidation of the position, B. Jenken was elected Scientific Secretary of the Ukrainian Academy of Agricultural Sciences (now the Ukrainian Academy of Agrarian Sciences). On the same day, the Committee's Botanical Section elected him a Member, and later – the Chair of the Office of New Cultures and Their Inventions. The scientist took active part in the research work carried out by the crop sub-section of the Meadow Crop Botanical Research Commission. On 1 December 1926, B. Jenken resigned the position of the scientific secretary, but continued to cooperate with colleagues on social

basis. For example, we can find him among the members of the crop sub-section, whose responsibility was to provide sectoral reviews and bibliographic work. B. Jenken's appointment of a responsible scientific secretary was not a coincidence, as his professionalism and organizational skills were highly appreciated when he served as the chair of the commission in the Reserve «*Čapli*» (now Biosphere Reserve Askania-Nova), developing a perspective of its scientific research plan [39].

On 13 July 1926, working simultaneously in both positions, B. Jenken became a Qualification Professor of Group I named after K. Timirjazez Maslovsky Variety Seed Technology School (now Maslovsky Agrarian Technicum) [40]. On 1 October 1927, B. Jenken took a permanent employment at that institution [41]. The agronomist also ran the laboratory for the technical characteristics, processing and standardization of agricultural plant products and products, which he set up on 7 December 1926 [42]. At the same time, B. Jenken was a true member of the Chair of Botanical Research at the Kharkiv Agricultural Institute. There he worked on new crops. In 1927, B. Jenken headed an expedition of eight people who studied the North Caucasian flora culture. His articles «The Local Varieties of Corns» and «On the Laboratory of Bakery and Grain Meal Peculiarities» prepared for the third volume of the «Technical Notes» were not published. At the same time, he also headed the editorial board.

On 1 September 1927, B. Jenken began to run a laboratory organised by him in Kyiv, where he examined the characteristics of grain from the point of view of obtaining flour and baking bread. The scope of work did not allow B. Jenken to fully devote himself to his duties of a teacher. Therefore, on 7 June 1928, he applied for dismissal from the technical school, but did not interrupt the collaboration with it [43]. Under his supervision the graduates successfully defended candidates' thesis in selection and grain cultivation. The winter-rye varieties developed by B. Jenken in Kharkiv continued to be studied by both Maslovsky technicians and lecturers. It should be noted that he taught the basics of breeding for a whole generation of students of technology, who later became world-class breeders. Among them are Heroes of Socialist Labour, laureates of Lenin Prize, the Prize of the Union of Soviet Socialist Republics (USSR) and of the State Prizes of the Ukrainian Soviet Socialist Republic: academicians Prokofiy Garkaviy (*Прокіп Хоміч Гаркавій*; 1908–1984), Fyodor Kirichenko (*Федір Григорович Киричénко*; 1904–1988), Vasily Remeslo (*Васіль Миколáйович Ремесло*; 1907–1983), professors Mikhail Olshanski (*Михаил Александрович Ольшáнский*; 1908–1988), and Pyotr Shkvarnikov (*Пётр Климентьевич Шкварников*; 1906–2004), etc.

Significant is the work of B. Jenken in the management of varieties of seeds. In the second half of the 20th century, the activities of administration were very active – it was of national importance in matters

relating to the acquisition of the best varieties of rural crops (beets, cereals, pulses), to study of the conditions for the propagation of seeds and the distribution of sugar beet culture to the new regions of the USSR. No less important was the scientific and organizational work in entomology, phytopathology and agricultural microbiology. For these purposes, five research stations that were subjected to the profile of the People's Commissariat served. In addition, after the initiative of the Management of Varieties of Seeds, in 1922, the Scientific Research Institute for Selection in Kyiv Polytechnic Institute was founded with a scientific pedagogical orientation run by Professor Volodymyr Kolkunov (*Володимир Володимирович Колкунов*; 1866–1937). The main task of the Professor was the development of sugar beet breeding methods. The intensive breeding and seed-growing allowed stopping sugar beet seed imports in 1929. Other institutions, including the Laboratory in Kyiv, which was organized and run by B. Jenken, actively participated in the work of the laboratory.

The financial problems that arose as a result of the reorganization process in the Seed Administration after the establishment of the Ukrainian Sugar Industry Research Institute in 1927 also affected the financial situation of the scientist B. Jenken. He had to think about work and salary, because he was the only money-earner providing the big family (including his wife's parents, aunt, and niece).



Figure 3. Boris Jenken (on the right) with his wife Lidia Jenken (*Лидия Клавдиевна Ёнкен*) during work at the Kharkiv Experimental Station [2].

In the middle of 1928, B. Jenken began to work as a Laboratory Manager in Kyiv, the Ukrainian Trade Museum, where he studied the processes of flour extraction and bread baking [44]. B. Jenken created a special collection there for a permanent exhibition. As a museum delegate, he

met again with N. Vavilov at the All-Union Genetics, Seed and Breeding Livestock Congress, which took place from 10 to 16 January 1929, in Leningrad [45]. He continued his work at the museum, which was reorganized at the end of 1929 into the Institute for Economic, Technical and Rational Marketing of the National Research Institute. At the beginning of 1930, B. Jenken returned to work at the Kharkiv District Agricultural Station.

The political processes in the country, with their specific fabricated indictments, could not have missed the scientist B. Jenken, besides, his colleagues' arrests in connection with the participation in the «Union of Liberation of Ukraine» and the «Workers' Party of the Landowners» began. Out of the 144 arrested, 50 were collaborators from various scientific institutes and stations [46]. B. Jenken knew many detainees, and maintained friendly relationships.

Due to family circumstances, his son Vadim after graduation from the Faculty of Agronomy of the Kuban Institute of Agriculture (1925) was sent to the Kuban Plant Growing Experimental Station located in the Botanical Village in Krasnodar district, where he began his career as a senior laboratory technician and concluded as director [47]. B. Jenken was forced to return to the Kuban Institute of Agriculture (now Kuban State Agrarian University) where he had worked before. After the first Head of the Department of Breeding and Seed Farming founded in 1926, Associate Professor Vasili Pustovoits, who later became a world-class breeder, academician, Lenin and the State Prize winner, the double-faced Socialist Worker, was arrested, B. Jenken became Head of the Chair [48]. In 1933, due to health problems, he was forced to leave, first becoming a professor of the Chair, but later, from 1935, Head of the Scientific Library of the Kuban Experimental Station [49]. In the station, B. Jenken met the Academician N. Vavilov for the last time when he visited trial fields in the middle of the 1930s. The scientist then visited the Jenken family, and Jenken's granddaughter still remembers the box of magnificent candies presented by the scientist.

At the beginning of the Second World War, due to his age and illness, B. Jenken, together with his family and collective of the trial station on the night of 4 August 1942, did not evacuate to Krasnoufimsk in the Sverdlovsk region. In the occupied territory, he did everything possible to prevent the garrison commander from ordering the destruction of the village of Otrada Kubanskaja and the experimental station, and spoke on these issues when meeting with the German commanding personnel. Before that, he and his wife were arrested and Jenken was threatened to be shot because someone had given false information. He was released from custody with his wife just because he showed a passport stating that he was a German national. At the beginning of March 1943, the

experimental station restored its work under the leadership of Boris Jenken's son Vadim Jenken.

B. Jenken died in 1943, and was buried in the Otradno-Kubanska cemetery at Botanical Village. Many years of research, the results of which have been compiled in a monograph published in 2014 [50], have made it possible to find out that the outstanding scientific scientist B. Jenken's creative heritage contains 127 scientific and popular scientific works, brochures, reviews in Russian and also in Ukrainian. They were created between 1905 and 1926. Unfortunately, his later publications are not yet available to the author. This is especially related to his period of life and work in Krasnodar (1919–1924; 1930–1943). Probably the scientist's publications are abroad. When reviewing the publications, it should be concluded that B. Jenken's scientific interests were diverse – plant production, breeding and seed farming, geographic research, public agronomy, agricultural bibliography and the history of agricultural experimentation. In 1925, the scientist wrote that special scientific essays had not been prepared due to illness and therefore he was not able to summarize all the work done, mainly in the Kharkiv ATS. In his opinion, the status of scientific writings belonged to those of his papers, which were published by various professional congresses and conferences. When reading them, it can indeed be concluded that B. Jenken has been very knowledgeable in the matters relating to the organization of national agricultural testing practices, especially concerning breeding and seed production.

His son Vadim Jenken succeeded to continue his father's work. He is a doctor of agricultural sciences, professor, and a well-known scientific and technical worker in the Russian Federation of the Soviet Federative Socialist Republic. He is the author of 12 district soy, barley breeds, has published about 100 scientific essays, including 10 brochures, books and monographs on cereal crops [51]. The monograph «Soya» («Соя», 1959), published by V. Jenken, is considered to be the best in Russia and abroad. His granddaughters Olga and Tatyana have defended the candidate thesis in agrobiology, following in the footsteps of their grandfather and father [52].

Summarizing the results of more than 10 years of scientific research on B. Jenken, it must be concluded that he, as a Russian-born, in his heart a Ukrainian German, a colleague of A. Fortunatov, a pupil of P. Budrin, and N. Vavilov's colleague must be placed among the most outstanding Ukrainian scientists, especially emphasizing his contribution in the selection of agricultural plants. Thanks to B. Jenken, Ukraine has developed a high level of agricultural experimentation. V. Dokuchaev (*В. Докучаев*) founded the first field of experiments 134 years ago in Poltava, but B. Jenken was considered one of the undisputed breeders [53].

The contribution and activity of B. Jenken's life is reflected in encyclopaedias and publications, in 2014, with the support of the author of this article, a memorial plaque dedicated to B. Jenken was opened on the facade of Maslovsky Agrarian Technicum.

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Graduate of Riga Polytechnic Institute, agronomist Boris Jenken (1873–1943)



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Viktors Vergunovs

Rīgas Politehniskā institūta absolvents agronoms Boriss Jenkens (1873–1943)

Raksts veltīts Rīgas Politehniskā institūta (RPI) absolventa (1900) agronoma Borisa Jenkena (*Борис Карлович Ёнкен*; 1873–1943) dzīvei un radošajam mantojumam. B. Jenkens bija Ukrainas nacionālās lauksaimniecības organizators, zinātnieks, selekcionārs, pedagogs, vēsturnieks un agrārās zinātnes bibliogrāfs. Pētījums veikts, izmantojot maz zināmus un nesen plašākai publikai lietošanai nodotus dokumentus Krievijas Federācijas un Ukrainas arhīvos, kā arī monogrāfijas un publikācijas periodiskajos izdevumos. Rakstā analizēti zinātnieka dzīves un darbības periodi, kas skar nacionālās lauksaimniecības izmēģinājumu organizāciju un ieviešanu galvenokārt selekcijas un sēklaudzēšanas jomā. Akcents likts uz B. Jenkena zinātniski pedagoģisko darbību Ukrainā: Harkovā (1908–1919; 1925–1926; 1930), Odesā (1924), Maslovkā (1927–1929) un Kijevā (1928–1929).

Atslēgas vārdi: RPI, Boriss Jenkens, agronomija 20. gadsimta pirmajā pusē Ukrainā.

Выпускник Рижского политехнического института агроном Борис Енкен (1873–1943)

Статья посвящена жизни и научному наслeдству выпускника (1900) Рижского политехнического института агронома Бориса Енкена (1873–1943). Он был организатором национального сельского хозяйства Украины, а также известен как ученый-селекционер, педагог, историк и библиограф аграрной науки. Исследование проведено с использованием малоизвестных и только открывшихся для широкого пользования документов с архивов Российской Федерации и Украины, а также доступных публикаций с периодических и монографических изданий. В статье рассмотрены отдельные периоды жизни и деятельности ученого о вопросах организации и ведения отечественного сельскохозяйственного опытного дела, в первую очередь для потребностей селекции и семеноводства. Основное внимание автора сосредоточено на научно-образовательной деятельности Б. К. Енкена на украинских землях: в Харькове (1908–1919, 1925–1926, 1930), Одессе (1924), Масловке (1927–1929) и Киеве (1928–1929).

Ключевые слова: Рижский политехнический институт, Борис Енкен, агрономия в первой половине XX века в Украине.