THE STUDY OF AGRICULTURAL, PARTICULARLY BOTANICAL MATERIALS, IN LINGUISTICS

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Annotation: *The article studies the lexical-semantic properties of agricultural, and in particular plant science, terms using the example of historical literature.*
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As linguistics has advanced in areas such as text, speech activity, discourse, terminology, and translation theory, the need to study specialized texts has also increased. In plant science texts, scientific terms, their structure, translation, stylistic features, and their role within professional discourse are analyzed through various linguistic methods. However, the number of studies in this direction is still limited, with most remaining within the framework of general terminology or translation issues. This study examines the state of research on agricultural texts, especially those related to plant science, within linguistics, exploring existing approaches, linguistic features, translation problems, and promising research directions in this field. The relevance of this work lies in the fact that it represents a vivid example of language and interdisciplinary integration, allowing for an in-depth theoretical and practical analysis of specialized speech and text.

Terms constitute the main units of this field. While phonetics, stylistics, and grammar are the same in general language and in any scientific domain, the vocabulary differs. Therefore, a distinction is made between general vocabulary and terminological vocabulary. The lexical composition of each terminological system differs from others, which is of great importance in language. According to S.V. Grineva, “Today, the rapid growth of scientific and technical knowledge shows that more than 90 % of new words in modern language consist of specialized vocabulary. The number of terms in different sciences is growing faster than the number of frequently used words in language. Therefore, at present, the number of terms in certain fields (chemistry, biology) may exceed the number of non-specialized words.” This indicates the rapid development of terminology. Thus, a special language consists of special terms, the number of which corresponds to the number of scientific fields. For example, agricultural terms. Unlike commonly used vocabulary, specialized vocabulary as terms has specific features

related to its restricted usage and purpose. Therefore, for non-specialists, these terms may be difficult to understand.

The study revealed that in Uzbekistan, only a few research works have been conducted on agricultural, particularly plant science, terminology, and that dictionaries in this field remain insufficient. Existing dictionaries mostly include the names of plants growing in Central Asia, which is not enough for today's rapidly developing country. Any event or change in society is first reflected in language. Throughout historical and socio-economic development, the vocabulary of a language constantly evolves. This enrichment occurs through the emergence of new words and names that express new concepts. The vocabulary and lexical-semantic system of a language are always in flux; in modern conditions, words denoting obsolete concepts become archaic, replaced by new ones. However, the number of words falling out of use is often much smaller than the number of new ones. Yet, the opposite can sometimes occur. The disappearance of lexical units is linked to linguistic and extralinguistic factors, based on the laws of language nature and development. Two main phenomena are observed in this process: In the course of globalization, obsolete objects and phenomena, along with the words that designate them, leave the vocabulary system and become historical words; In the development of language, lexical units disappear if they fail to properly express the essence of an object or phenomenon, and are replaced by new words that accurately reflect it; The continuous enrichment of vocabulary is one of the main laws of language development. Lexical development takes different forms in different historical periods of society. Russian linguist E.A.Zemskaya wrote: "If a new word were created entirely disconnected from the old one, mastering the language would be very difficult, if not impossible." The expansion of vocabulary serves to facilitate usage and, most importantly, to express real-world interconnected phenomena through interrelated words. Thus, the interconnection of words in language reflects the relationship between real objects and phenomena.

The vocabulary of a language constantly expands with new words, ensuring the development of the language itself. A large proportion of new words are terms. Scientific and technological progress generates new terms, while, at the same time, terms create a foundation for scientific and technological progress. Indeed, a scientific or industrial field that has not been terminologically developed cannot progress as expected. At certain stages of social development, the terminology of a field extends beyond its narrow scope and comes into wide use in general speech. This means that plant science terms are used not only in specialized contexts but also in everyday language.

There are several problems in translating agricultural and plant science terms from English into Uzbek, most of which trace back to their historical development. The polymath, physician, and philosopher known in the West as Avicenna (Abu Ali ibn Sina) devoted much attention to plant science, since most medicinal substances in medicine are derived from plants. In the "*Kitab ash-Shifa"* (*The Book of Healing*), particularly in its "Anna-bot" ("Plants") section, he wrote about plant types, origins, nutrition, organs and their functions, reproduction, and growth conditions, also contributing to the creation of scientific terminology. For thousands of years, medicinal plants have been the foundation of healthcare, and many are still used today in traditional medicine or as the basis for modern pharmaceuticals. In Avicenna's "*The Canon of Medicine"*, numerous plants with healing properties are described, many of which have been confirmed by modern science. These plants offer a range of therapeutic effects, including anti-inflammatory properties. As research expanded, plant science terminology naturally grew as well.

Ibn Sina, a Central Asian who spoke Persian (Farsi-Dari), often composed quatrains in this language "to bring peace to the heart." However, he completed "*The Canon of Medicine"* in Arabic. "*The Canon of Medicine"* was translated into many languages, including Uzbek and Russian, with the participation of Orientalist scholars and specialists. In Uzbek, the translation was significantly contributed to by A.Rasulev, S.Mirzayev, U.Karimov, A.Murodov, A.Qayumov, A.Urinboyev, and Q.Munirov. The Russian translation involved M.A.Salye, U.Karimov, Yu.N.Zavadovsky, P.G.Bulgakov, S.Mirzayev, and A.Rasulov.

The Uzbek translation of "*The Canon of Medicine"* was revised in 1980, on the occasion of Ibn Sina's 1000th anniversary. This translation, prepared by U. Karimov, was published between 1979 and 1983. Since then, the work has been republished several times in both Uzbek and Russian, in both shortened and complete versions. Thus, many scholars participated in translating "*The Canon of Medicine"* into different languages, with A.Rasulev, S.Mirzayev, and U.Karimov playing particularly important roles in the Uzbek version.

Written by Ibn Sina, "*The Canon of Medicine"* is one of the most important works of medieval medicine. After its translation into Latin, it spread widely in Europe and became the foundation of medieval medicine. Both Ibn Sina's "*Kitab ash-Shifa"* (*The Book of Healing*) and "*The Canon of Medicine"* have been translated into many languages. For example, into English from Urdu by scholars such as Faquir Muhammad Hunzai, Rashida Nurmohamed-Hunzai, and Brigham Young University researchers Marmura and E.Michael.

While working on my dissertation topic, I also studied Zahiriddin Muhammad Babur's *"Baburnama"*. This work contains scientifically grounded observations and conclusions related to social and natural sciences, history, philosophy, jurisprudence, theology, linguistics, geography, natural sciences, mineralogy, agriculture, horticulture, and more, which still retain their historical and scientific significance. Since the 16th century, *"Baburnama"* has been translated multiple times into many languages – English, Dutch, French, Persian, German, Italian, Russian, Hindi, Urdu, and others – and has been published with commentary and notes. Scholars from England, the United States, France, Russia, India, Pakistan, Afghanistan, Turkey, Japan, and many other countries have emphasized *"Baburnama"* 's place among the immortal monuments of humanity. The fame of *"Baburnama"* is largely due to English Orientalists. The first complete edition (in English) was published in 1826 by J.Leyden and W.Erskine. Based on this, F.Talbot published abridged editions in 1878 and 1909. In 1921, English Orientalist A. Beveridge independently translated *"Baburnama"* from the original. In England alone, *"Baburnama"* has been published in translation nine times.

In recent years, the critical edition of "*Baburnama"* was published in the U.S. (Cambridge, Harvard University, 1993) by Professor W.Thackston, and in Japan (Kyoto, 1995-96) in two volumes with comprehensive glossaries, indexes, and commentaries. *"Baburnama"* was translated into Persian (1586), with excerpts rendered into Dutch by Vitsen (1705), into German in abridged form by A.Keyser (1828), and into French in full by Pavet de Courteille (1871). Translation and study of *"Baburnama"* also involved scholars from Afghanistan (Abdulkhay Habibi), Pakistan (Rashid Akhtar Nadvi, Shah Alam Mavliot), India (Mirza Nasruddin Haidar, Muhibbul Hasan Rizvi), Turkey (R.R.Arat, N.I.Bayur), among others. Russian Orientalists (N.I.Pantusov, S.I.Polyakov, V.Vyatkin) also translated excerpts, and N.I.Ilminsky published it in Kazan (1857).

A key common feature of Ibn Sina's and Babur's works is that both devoted attention to botanical terminology, producing their writings mainly in Arabic and Persian. Ibn Sina focused on plants in relation to their medicinal properties and their use in the treatment of diseases, whereas Muhammad Babur described plants in great detail-highlighting the regional variations in their names, as well as their flowers, leaves, and, when relevant, the taste of their fruits – thus presenting a synchronic analysis. Later, foreign scholars who translated these invaluable works examined them through both synchronic (the study of language at a specific point in time) and diachronic (the study of language across historical periods) perspectives in linguistics. For. ex:

Archaic, Arabic or Persian languages	Uzbek language	Latin or Old English	Modern English
Harmal	Isiriq	*Peganum*	Wild rue
Safarjal/Hayva	Behi	*Cydonia oblonga*	Quince
*Kuzbura [*Ibn Sina. *The Canon of Medicine]*	Kashnich	*Coriandrum*	Coriander (kashnich urug'i) (When the plant flowers and turns to seed, the aromatic, lightly floral seeds), Cilantro (barra kashnich), (the name for the serrated leaves and stems of the coriander plant) [https://www.southernliving.com/food/seasonings/coriander-vs-cilantro]
*Yabruh [*Ibn Sina. *The Canon of Medicine*, Vol. 1, p. 210*] / Yabruhus-sanam [*Zahiriddin Muhammad Babur, "Baburnoma"*]*	Mehrigiyoh	*Mandragora officinarum*	Mandrake
*Tin [*Ibn Sina. *The Canon of Medicine*, Vol. 1, p. 274.*] /Beyr [*https://www.facebook.com/groups/246149995752425/posts/3804055762321847/ "Baburnoma"*]*	Anjir	*Ficus carica*	Fig

The table shows that in both English and Uzbek, plant names have lost their original ancient forms and have become archaic terms. The following section provides definitions of the botanical terms listed in the table, analyzed within a lexical-semantic

framework. For each term, its semantic domain, lexical evolution, and contextual usage are outlined.

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