

# Word Formation Of Plant Names In the Uzbek Language: Structural And Derivational Features

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**Abstract:** Today, in the context of the rapid development of science and technology, improving the terminology of each scientific field is a crucial task. In particular, botany, as a science that studies the plant world, has its own system of scientific concepts. Clear and logical expression of these concepts requires a well-developed system of botanical terms.

To this end, this article analyzes the features of word formation in the phytonymic vocabulary of the Uzbek language, as well as the processes of botanical term formation and their linguistic study as an important factor.

**Keywords:** Phytonyms, compounding, russian language, uzbek language, derivation, compounding model, simple and compound compounding.

**Introduction:** In modern linguistics, terminology is one of the important scientific directions. In particular, botanical terminology constitutes a special system of lexical units that represent scientific concepts related to the world of plants. These terms are important not only in the development of biological and botanical sciences, but also in the expression and systematization of scientific knowledge through language. Botanical terminology has its own features of formation in different languages, the composition of which is formed under the influence of historical, cultural and linguistic factors. In particular, the formation of botanical terms in the uzbek and russian languages, models of their word making and the study of semantic features are of important scientific importance in understanding the development of the terminology system. The main purpose of this article is to analyze the linguistic features of botanical terms used in uzbek and russian, determine the principles of their formation, and scientifically highlight the word making and semantic structure of terms. As research tasks, it is considered to consider the theoretical foundations of botanical terminology, determine the lexical-semantic properties of terms and analyze their formation models and translation properties.

## METHODOLOGY

In this study, a number of linguistic techniques were used in the process of studying Botanical terminology. In particular, with the help of a comparative-analytical method, botanical terms in Uzbek and Russian were compared and their general and different aspects were determined. Also, through the method of lexical-semantic analysis, the meaning structure of terms, their role in the expression of scientific concepts and semantic features were studied. With the help of word-making analysis, morphological formation of botanical terms, affixation, compound words and other derivational models were analyzed. Scientific literature on the field of Botany, terminological dictionaries and a corpus of terms from scientific sources in the Uzbek and Russian languages served as research materials.

The study of the flora of Central Asia has been going on since ancient times. Information about the plants that grow in this region, including the modern territory of Uzbekistan, can be found in the works of famous medieval scholars. For example, in the *Kitob as-Saidana fit-Tibb*, a work on medicine by Abu Rayhan Beruni (973-1048), there is information about many medicinal plants. Another scholar, Abu Ali ibn Sina (980-1037), classified and thoroughly analyzed numerous medicinal plants of Central Asia in his works *Kitob al-konun fi-tibb* (The Canon of Medicine) and *Kitob ush-shifo* (The Book

of Healing), emphasizing their healing properties. The dictionary “Devonu lugat-it turk” by Mahmud Kashgari, who lived in the 11th century, describes the useful and valuable qualities of almost 200 plants found in Turkestan. As a result of interlingual interaction, the vocabulary of the Uzbek language has become incredibly rich and continues to expand. For example, along with Russian words with Russian roots, the Uzbek language has incorporated words and terms from Western European languages, particularly those based on Greek and Latin. The Uzbek language and its scientific terminology are becoming richer due to its internal capabilities.

Within the framework of our research work, we had to work through many sources, on the basis of which we used dictionaries of the Plant List, Phytalex and Plantarium, as well as many botanical terms, the main literature of which is Mukhammadkhanov S., Jongurazov F. is the author's “Russian-Uzbek Explanatory Dictionary of Plant Studies”. On the basis of this dictionary, we also created a dictionary entitled

“Словообразовательный словарь названий растений русского-узбекского языков”, on the word-making of botanical terms. This dictionary lists the Uzbek and Russian names of botanical terms, their morphemic and word-making methods.

## RESULTS

The results of the study showed that Botanical terminology has a specific systematic structure, in which the formation of terms is carried out on the basis of various linguistic models. In particular, in Uzbek and Russian, botanical terms are formed through methods such as affixation, compound word formation, and semantic expansion. In the process of analysis, it was also found that some terms were borrowed from international scientific terminology. Such terms often come from Latin or Greek, which have a universal character in the system of scientific terminology. It has also been observed that in some cases direct equivalents are used in the translation process of terms, and in some cases semantic matching or annotated translation methods are used.

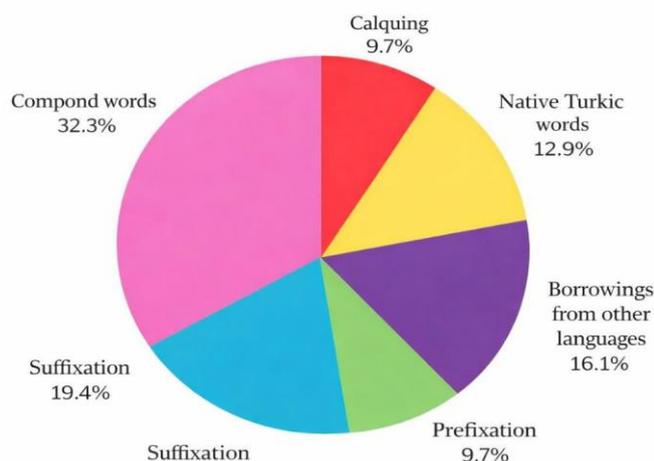


Figure 1. Word-formation methods of botanical terms.

This diagram reflects the principles of the formation of botanical terminology based on plant names in Uzbek. The description of each method is as follows:

The affixal method is the 19.4% most common method, with affixes (suffixes and prefixes) added to the word base to form new terms. Examples of this include “balzamli daraxtlar”, “ninabargli daraxtlar”, “chigitli paxta”, “tolali ekinlar”, “po‘kakli eman” through the base word - making suffix “-li”, “savrinjon”, “maymunjon” through the plant names “-jon” spoon, “mavrak”, “zig‘irak”, “marmarak”, “mastak”, “duvarak”, “otashak”, “tuxmak”, “karrak”, “afsonak”, “terak”, “na‘matak”, while the plant names “-ak”, “sutlama”, “ustama”, “uchma o‘t” are made through the suffix “-ma”, et al.

Compound words – 32.3% the second most common way is to create complex words by combining two or

more bases. For example, “laylak+tumshuq”, “kapalak+gul”, “yer+yong‘oq”, “noz+voy+gul”, “oq+momiq”, “ming+devona”, “bo‘ri+taroq”, “guli+sumbul”, “tosh+kakra”, “gov+zabon”, “qush+qo‘nmas”, “qum+tariq”, “qo‘y+pechak” and others.

Appropriation words-16.1% adaptation of words from other languages to Uzbek. It is abundant in scientific and Botanical terminology. For example, “anjir”, “anor”, “arg‘uvon”, “baqlajon”, “bo‘yimodaron”, “behi”, “binafsha” – come to Uzbek from Persian-Tajik, “apelsin” – from Dutch, “bambuk” – from Malayali, “banan” - from Spanish, “baobab” from Ethiopians, “belladonna” from Italian, and the name Acacia plant goes back to ancient Greek history, etc.

The prefixal method is to form new terms by adding prefixes (front suffix) to a 9.7% word. In the Uzbek

language, this method is rare, but available, in which plant names are made mainly through foreign front appendages. For example, "agrofitlar" – agro+fit, "arxeofit" – arxeo + fit, "gigrofitlar" – gigo+fit, "mikroo'g'it" – mikro+o'g'it, "microflora" – mikro+flora, "monokultura" – mono+kultura, "subtropik o'simliklar" – sub+tropik and etc.

Calcification - 9.7% direct translation of terms in other languages and their adaptation to the Uzbek language. For example, "soyabongulli apagantus", "Meksika aregatumi", "yeryong'oq", "mo'g'ul choyi", "baxmal daraxt", "Brussel karami" etc.

Original Turkic words – 10% Using old Turkic words when creating new terms. This method helps to preserve the national identity of the language. For example, "ajriq", "archa", "air", "qo'ziqorin", "yalpiz", "xurmo", "yong'oq" and other.

In conclusion, it can be said that as the most used methods in the formation of botanical terms (plant names) in the Uzbek language – the affixal method, the use of compound words and inclusions-can be cited. At the same time, the use of Asian Turkic words in order to preserve the national lexicon also plays an important role.

### ANALYSIS

The role of botanical terms in the linguistics of the Russian and Uzbek languages is particularly clearly traced through several key aspects: cultural, lexical, semantic and comparative. Botanical terms in Russian and Uzbek languages reflect traditions, customs and worldview formed in certain geographical and climatic conditions. For example, trees such as the birch in Russian and the djida in Uzbek not only denote specific plant species, but are also important cultural symbols of these two peoples.

In both languages, botanical terms are widely represented in folklore, proverbs, fairy tales, and poetry. In Russian, for example, the image of a birch tree often symbolizes Russia and its nature, and in Uzbek poetry flowers such as lola (tulip) can symbolize spring and rebirth. Russian literature, for example, often uses the term "mountain ash" (Latin Sorbus) to create an image of Russian nature, as well as a symbol of perseverance and feminine beauty. In Uzbek literature, the term "gul" (flower) is often found in poetic works, where it symbolizes beauty, youth and tenderness. Botanical terms play an important role in enriching the vocabulary of languages, especially in the context of naming new plant species or introducing terms from other languages through borrowings. In Russian and Uzbek, botanical vocabulary is often borrowed from other languages, reflecting cultural exchanges and the expansion of knowledge about the

world.

### DISCUSSION

Botanical terminology in the Uzbek language has attracted attention relatively recently. Jamalkhanov X., Nugmanov T., Gurbanov A., Eshongulov Y., Pazlitdinova N., Khoshimkhojayeva M. and Mirsanov B. in the works of Uzbek Botanical terminology compared to other languages, its lexical-semantic structure is considered. The study of the origin of plant names related to the word-making of botanical terminology in Uzbek on the basis of Turkic, Arabic and Persian languages Mirzayev M. and Rahmatullayev Sh. among others. Bobokalonov O.O. the linguistic and linguocognitive properties of the terminosystem of healing plants in French and Uzbek languages. and the question of the system and artistic activity of the lexemes of plant names in the Uzbek language Nigmatova G. X. it has been studied by scientists such as.

The results obtained show that Botanical terminology is important not only scientifically, but also linguoculturologically. The formation of terms is closely related to the internal laws of the language system, as well as the scientific progress and cultural experience of society. The formation and application of botanical terms has also been studied by other researchers, and the results of this study are to some extent consistent with existing scientific views on the theory of terminology. At the same time, it was also found that there is a need to delve into the process of formation of botanical terminology in the Uzbek language. This indicates the need to further improve the terminology system, standardize scientific terms, and ensure their use on a single system basis.

### CONCLUSION

According to the results of the study, Botanical terminology is an important component of the scientific terminology system. In Uzbek and Russian, botanical terms are formed on the basis of various linguistic mechanisms, which have their own semantic and structural features. In the course of the study, it was found that affixation, compound word formation, and internalization of international Terms play an important role in the formation of terms. It was also noted that maintaining semantic compatibility is an important factor in the translation process of botanical terms. This study serves to highlight the linguistic features of botanical terminology and can serve as a scientific basis for further study of the issues of terminology and word making in the future.

The scientific novelty of this research is determined by the systematic analysis of the linguistic features of botanical terminology in the Uzbek and Russian languages. In the process of research, the formation of

botanical terms, their models of word making and their semantic structure were studied comparative-linguistically. Also, in the formation of botanical terms, basic derivational models such as affixation, joint word formation and assimilation of international terms were identified, and their role in the terminological system was described on a scientific basis. In addition, the translation features of certain botanical terms used in Uzbek and Russian, as well as issues of semantic compatibility, were analyzed and their specifics in the terminological system were clarified. This serves to further explore Botanical terminology in the context of linguistic research.

#### **REFERENCES**

1. Abu Ali ibn Sino. *Canons of Medicine. Books 1-5.* T., Science, 1979 – 1983; *Ibn Sino on Medicinal Plants (compiler A.S. Madrakhimov).* Tashkent, Mehnat, 1990.
2. Aleshina E.K. Study of plant names and national linguistic picture of the world: towards the formulation of the problem. *NSU Bulletin*, 2009. – Vol. 8. – P. 34–37.
3. Baryshnikova T.D. Structural-semantic and motivational properties of floronyms in English and French. *Volgograd*, 1999.
4. Bulakh E.A. Motivational bases of common names of plants (based on the English, German and French languages). – *Pyatigorsk*, 2001. – P.16.
5. Galaeva L.Kh. Phytonymic vocabulary in the Ingush language. *Magas*, 2006. – P.147
6. Gafarova K.T. Comparative analysis of phraseological units with zoonyms and phytonyms in the Tajik, German and Russian languages. – *Dushanbe*, 2007.
7. Dmitrieva L.V. – Names of plants in Turkic and other Altai languages // *Essays on comparative lexicology of Altai languages – L.*, 1972. P.151-223.
8. Zaksor L.Zh. Methods of plant nomination in the Nanai language. *St. Petersburg*, 2005. – P.189
9. Majidova H.I. *Word-formation dictionary of plant names of the Russian-Uzbek languages / Word-formation dictionary.* Navoiy. 2024. 80 p. ISBN 978-9910-654-24-4.
10. Majidova H.I. Uzbek botanical terms (phytonyms) as a mechanism for enriching the lexical composition of the Uzbek language // “XX asr tilshunosligi: tahlil va talqin”, *NavDPI ilmiy jurnali*. December, 2024 No. 4, Vol. 2., ISSN 2181-3914.
11. Mamatov B.Yu. *Abu Rayhon al-Beriniyning “Kitab al-Saydana fi-t-tibb” kitobing zamonaviy dorishinoslikdagi urni wa ahamiyati*, Research Archive: 2020.
12. Muhammadkhonov S., Zhongurazov F. “Osimlikshunoslikka oid ruscha-uzbekcha isogli lugat.” Tashkent - “Mekhnat” – 1989.
13. Musaev K.M. – *Lexicon of Turkic languages in comparative terms: Western Kipchak group.* Moscow, 1975.
14. Pazlitdinova N. *Ozbek tili phytonimlarining lexicon-semantic hususiyatlari.* Philol. fan. false doc. (PhD)... diss. abstract Farghona, 2018
15. Tsoi T.V. *Lexical-semantic and word-formation structure of phytonyms in the modern Russian language*, 1994
16. Khazbulatov B.A. *Phytonyms in the Chechen language: Synchronic-diachronic analysis.* Grozny, 2004. – P.380
17. Khoshimkhuzhaeva M. *Olamning lisoniy tasvirida phytonimlar (Inglis, rus va uzbek tillari misolida).* Philol. fan. false doc. (PhD)... diss. abstract –T., 2019