

**THE ROLE AND APPLICATION OF THE LATIN-BASED SCIENTIFIC NAMING SYSTEM IN PLANT IDENTIFICATION IN THE ENGLISH LANGUAGE****Matkarimova Gulira'no Abdullayevna**

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**Annotation:** This article analyzes the nature, origin, and practical significance of the Latin-based scientific naming system. During the research, the confusion related to common (folk) names of plants and the role of binomial nomenclature in eliminating these issues are highlighted. In addition, the structure of scientific names (genus and species) and their role in identifying living organisms are explained based on examples. The results show that Latin scientific names are important not only for scientific communication but also in everyday gardening practice. The article substantiates the consequences of incorrect identification, particularly errors in plant care, through examples. As a conclusion, it is emphasized that the scientific naming system is an effective tool for correctly selecting plants and providing appropriate care for them.

**Keywords:** Latin language, scientific naming, binomial nomenclature, taxonomy, plant classification, genus, species, gardening, plant identification, scientific terminology

**Annotatsiya.:** Mazkur maqolada lotin tiliga asoslangan ilmiy nomlash tizimining mohiyati, uning kelib chiqishi va amaliy ahamiyati tahlil qilinadi. Tadqiqot davomida o'simliklarning xalqona nomlari bilan bog'liq chalkashliklar va ularni bartaraf etishda binomial nomenklaturaning roli yoritilgan. Shuningdek, ilmiy nomlarning tuzilishi (genus va species) hamda ularning tirik organizmlarni aniqlashdagi o'rni misollar asosida tushuntirilgan. Natijalar shuni ko'rsatadiki, lotin tilidagi ilmiy nomlar nafaqat ilmiy aloqa uchun, balki kundalik bog'dorchilik amaliyotida ham muhim ahamiyatga ega. Maqolada noto'g'ri identifikatsiya oqibatlari, xususan, o'simlik parvarishidagi xatolar misollar orqali asoslab berilgan. Xulosa sifatida ilmiy nomlash tizimi o'simliklarni to'g'ri tanlash va ularga mos parvarish ko'rsatishda samarali vosita ekanligi ta'kidlanadi.

**Kalit so'zlar:** lotin tili, ilmiy nomlash, binomial nomenklatura, taksonomiya, o'simliklar klassifikatsiyasi, genus, species, bog'dorchilik, o'simlik identifikatsiyasi, ilmiy terminologiya

**Introduction.**

Many people consider learning Latin-based scientific names difficult and their pronunciation complicated. However, by studying this system step by step, it can be easily understood. Several centuries ago, as Europeans explored the world, the common (international) names of plants in different regions became extremely confused.

It was precisely to solve this problem that the Swedish scientist Carl Linnaeus (Linneus) developed the scientific naming system. Initially, he created this system only to organize his own ideas, but later this concept spread widely among scientists in Europe, Russia, and the New World. As a result, all living organisms—plants, animals, and fungi—began to be named in Latin.

Latin was chosen as a “neutral” language and became a universal means of scientific communication understandable to all scientists.

**Methodology.**

This article was prepared based on existing scientific and practical observations, and the following methods were applied: Analysis of real examples encountered in gardening practice; Comparison of scientific and common names of plants; Explanation of the taxonomic (genus and species) system; Study of the application of Latin names in everyday life.

Additionally, cases of incorrect plant identification and their consequences are presented as examples.

### **Results.**

At first, a natural question arises: why did the need for scientific naming emerge? One of the main reasons is that the problem of incorrect naming is widespread in gardening practice. For example, a plant referred to as a “jasmine shrub” turned out to be *Gardenia jasminoides*. It is called “Cape jasmine,” but it is not a true jasmine. This leads to completely different care requirements. As a result of improper care, many such plants have died in numerous cases. Confusion and misunderstandings have arisen in gardening and flower care.

Moreover, the simplicity of Latin names and their already widespread use across much of the world has also encouraged their acceptance as international names. Not only scientists and researchers, but also many ordinary people, including farmers and floriculture practitioners, already know a number of scientific names, which further proved the necessity of spreading these names. For example, flower names such as *Iris*, *Camellia*, and *Erica* are used almost identically across nearly all languages of the world.

Likewise, plants commonly encountered in everyday life—*Agave*, *Aloe*, *Acacia*, *Aster*, and others—are used in exactly the same form as scientific names.

In addition, the fact that Latin is an ancient language and has served as a foundation for the development of many other languages, and that some of its words have transferred into nearly all languages with little change, also demonstrated the necessity of adopting it. In the plant world, it is especially common to encounter plants that share identical English and Latin names.

The following plants can be cited as examples: *Amaranth*, *amaryllis*, *asparagus*, *begonia*, *bougainvillea*, *camellia*, *chrysanthemum*, *citrus*, *dahlia*, *eucalyptus*, *gardenia*, *geranium*, *hibiscus*, *hydrangea*, *magnolia*, *narcissus*, *oleander*, *petunia*, *rhododendron*, *tulbaghia*, *verbena*, *wisteria*, *yucca*, *zinnia*, and others.

When discussing the adoption of Latin as the main language, it is impossible not to mention the term binomial system (two-part naming). This is because it is no secret that scientific terms in Latin are based precisely on a two-part naming system.

Binomial nomenclature is an international standard system for giving scientific names to living organisms, in which each organism is expressed by a name consisting of two parts. This system was developed by Carl Linnaeus and is still used by scientists worldwide.

Each scientific name consists of the following parts:

Genus – indicates the larger group to which the organism belongs. Organisms within the same genus are considered closely related.

Species – identifies the exact type of organism. This part distinguishes it from other closely related species.

For example: *Felis catus* – domestic cat, *Homo sapiens* – human. Here: *Felis* and *Homo* are genus names, while *catus* and *sapiens* are species names.

The greatest advantage of scientific names is that they provide accurate and reliable information about a plant. Common (folk) names, on the other hand, are often confusing. For example, consider a plant called *Acacia pendula*. If we divide this name into two parts: *Acacia* indicates which group (genus) the plant belongs to, while *pendula* means “hanging” or “weeping.” Thus, even from the name itself, one can understand the plant’s form. Imagine that you want to plant a beautiful tree in your yard. You are recommended “acacia.” However, the problem is that there are several types of trees under the name “acacia.” They are not all the same. Some acacias have shallow roots that, over time, can lift pavements or damage walls. Others have deep roots, grow safely, and are suitable for yards. If you buy it simply as “acacia,” you may choose the wrong type.

### Discussion.

The research results show that the scientific naming system allows precise identification of plants, prevents incorrect care, and creates a unified standard for international scientific communication.

Another important aspect of Latin is that it does not have a strict pronunciation standard. As William T. Stern emphasized, how scientific names are pronounced is not important—the main thing is that they are understandable.

Additionally, many Latin words exist in our everyday language; for example, the word “pendulous” is related to “pendulum.” This makes learning Latin even easier.

### Conclusion

The Latin-based scientific naming system is not complicated; on the contrary, it is a necessary tool for correctly understanding plants and other living organisms and treating them appropriately.

It plays an important role not only in scientific research but also in everyday gardening practice. By knowing the correct scientific name, it is possible to choose the right plant and care for it effectively.

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