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SCIENTIFIC AND PRACTICAL ASPECTS OF CLASSIFYING THE “AS LUPINUS” FOOD SUPPLEMENT WITHIN THE COMMODITY NOMENCLATURE OF FOREIGN ECONOMIC ACTIVITY

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Abstract. This article addresses the issues of developing biologically active food supplements based on medicinal plants in Uzbekistan, studying their chemical composition, and their proper classification according to the Commodity Nomenclature of Foreign Economic Activity (CN FEA). The study focuses on local medicinal plants, particularly Japanese sophora and lupin, on the basis of which a food supplement named “As Lupinus” was developed. Its composition was analyzed using modern physicochemical methods, and its biologically active components were identified. The research examines the pharmacological, morphological, and chemical principles of classifying biologically active supplements and substantiates their correspondence with international commodity codes. The assignment of the CN FEA code 1212 99 950 4 for the “As Lupinus” food supplement has been scientifically justified and proposed for practical implementation. This classification enables accurate identification of the product based on its chemical composition, facilitates export-import procedures, and ensures proper determination of customs duties. The results of the study are significant for the classification of biologically active supplements derived from medicinal plants in accordance with international standards and for promoting their entry into the global market.

Keywords: medicinal plants, biologically active supplements (BAS), food supplements, Japanese sophora, lupin, “As Lupinus”, chemical composition, flavonoids, quercetin, rutin, dihydroquercetin, CN FEA, commodity nomenclature, commodity code, 1212 99 950 4, classification, export-import, customs classification, pharmacological effects, folk medicine.

INTRODUCTION. In Uzbekistan, extensive scientific research has been conducted on the isolation of biologically active compounds from medicinal plants used for the

prevention and treatment of various diseases, as well as on the development of pharmaceuticals and food supplements based on these compounds. Significant contributions in this field have been made by prominent Uzbek scientists, including Doctor of Chemical Sciences, Professor I.R. Asqarov; Doctor of Technical Sciences, Professor Kh. Isaqov; Doctor of Chemical Sciences, Professor Sh.Kh. Abdullayev; as well as Sh.M. Qirgizov, Y.T. Isayev, O.Sh. Abdullayev, I.Y. Mamatova, M.M. Mo‘minjonov, and M.M. Khojimatov.

The classification of medicinal products is primarily based on their pharmacological effects, morphological structure (leaves, flowers, fruits, roots, etc.), and the properties of biologically active compounds they contain. Historically, this has led to the development of various pharmacological, botanical, and chemical classification systems. At present, in the study of medicinal plants, particular importance is given to the isolation of active substances and their classification based on chemical structure.

Today, the global demand for food supplements and biologically active additives is steadily increasing. Products derived from natural medicinal plants are in high demand not only in the food industry but also in the pharmaceutical sector. Therefore, for successful entry into international markets, it is essential to correctly classify such products according to the Commodity Nomenclature of Foreign Economic Activity (CN FEA) based on their chemical composition and to assign appropriate international commodity codes.

LITERATURE REVIEW AND METHODOLOGY

Under the leadership of Doctor of Chemical Sciences, Professor I.R. Asqarov, Candidate of Chemical Sciences M.N. Abdullayev conducted research on medicinal plants and their parts used as components of food products. In particular, natural biologically active food supplements such as “As-shifo” and “Oltin Vodiy” were classified under Section 12 of the Commodity Nomenclature of Foreign Economic Activity (CN FEA), subheading 121230 — “Food supplements prepared from medicinal plants or their parts,” based on their chemical composition. For food supplements prepared from 51 medicinal plants or their parts containing natural compounds such as avenacin, quercetin, pulegone and its derivatives, carvacrol, carnosol, and rosmarinic compounds, the commodity code **1212300001** was developed.

All manufactured goods are classified according to their chemical composition, and corresponding international commodity codes are assigned within the CN FEA system. In Uzbekistan, commodity codes are assigned in accordance with the CN FEA approved by the Presidential Decree of the Republic of Uzbekistan No. PF-3448 dated December 28, 2017, which came into force on January 1, 2018. The current version of CN FEA includes 21 sections and 97 chapters, with chapters 77, 98, and 99 reserved. The nomenclature comprises 1,252 headings, 5,367 subheadings, and 11,293 detailed subpositions. In the 2017 revision, amendments were made to 233 commodity headings: 36 were added, 79 were removed, and

additions were made to 3 groups. Furthermore, 205 subheadings were introduced and 43 were removed due to lack of demand in the international market.

At the “Chemistry of Goods” scientific laboratory of the Department of Chemistry at Andijan State University, studies were conducted on the chemical composition of Japanese sophora and lupin. As a result, the composition of these plants growing in Uzbekistan was analyzed, biologically active substances were isolated, and their structure and composition were studied using modern physicochemical methods. Considering the beneficial and medicinal properties of Japanese sophora and lupin for the human body, various food supplements were developed based on these plants and recommended for consumption.

The production process of the “As Lupinus” food supplement, based on Japanese sophora leaves and fruits as well as lupin seeds, includes the following stages: raw material procurement and storage, sorting, washing, drying, grinding, packaging, and storage.

Within the CN FEA system, biologically active food supplements that are not classified as medicinal products are represented under various commodity codes in limited cases. For example:

1504 20 900 0 – biologically active food supplement (non-medicinal);
1704 90 550 0 – herbal pastilles (“gorpils herbal lozenge”);
2009 90 490 8 – “narosan orange” (a mixture of orange and pineapple juice concentrates);
2106 90 590 0 – sugar syrups with flavoring or coloring additives such as mountain juniper extract;
2106 10 200 0 – protein-based supplements not containing milk fats, sucrose, isoglucose, glucose, or starch;
2106 90 920 0 – “FitLine Lutein” supplement;
2106 90 980 3 – vitamin complexes for diabetic patients;
2106 90 980 9 – various supplements such as “Bifiform Baby” (containing Lactobacillus GG, Bifidobacterium lactis B12, vitamins B1 and B6), “Supradyn Kids Gel,” “Niacin-minimal,” and “Niacin-maximal”;
3002 90 500 0 – “Linex for children.”

Biologically active supplements in the form of dragees, tablets, powders, or capsules, consisting of plant extracts and other components such as fruit concentrates, honey, fructose, glucose, vitamins, minerals, and amino acids (with or without additives), are generally classified under the commodity code **2106 90 980 9**. However, this subheading does not specifically provide for the classification of therapeutic composite food supplements developed for the treatment of particular diseases.

RESULTS

Taking the above into consideration, in order to address the classification problem, a new subposition within heading 1212 of the Commodity Nomenclature of Foreign Economic Activity (CN FEA) was proposed by the researcher for natural food supplements derived from plants. Specifically, the subheading **1212 99** — “Food supplements prepared from

medicinal plants or their parts” — was developed. Within this subheading, the code **1212 99 950** was introduced for “dried parts of certain medicinal plants (such as flowers, roots, leaves, or seeds).”

The natural food supplement “As Lupinus” was classified as a commodity product, and a specific code **1212 99 950 4** was assigned under the CN FEA. This code corresponds to a “natural food supplement developed on the basis of Japanese sophora and lupin, enriched with other medicinal plants, and containing biologically active compounds such as dihydroquercetin, quercetin, and rutin.”

The proposed classification ensures a more accurate identification of plant-based biologically active food supplements according to their chemical composition and functional characteristics, thereby improving their regulation within international trade practices.

Table 1. **Recommended CN FEA Code for Medicinal Food Supplements Containing Japanese Sophora and Lupin**

CN FEA Code	Description of Positions
121299	-- Food Supplements Prepared from Medicinal Plants or Their Parts
121299950	“Used for dried parts of certain medicinal plants (such as flowers, roots, leaves, or seeds)”
1212999504	-- Natural food supplement developed on the basis of Japanese sophora and lupin, enriched with other medicinal plants, and containing dihydroquercetin, quercetin, and rutin

At present, a commodity code has been developed within the Commodity Nomenclature of Foreign Economic Activity (CN FEA) for the “As Lupinus” food supplement, intended for the prevention and treatment of diabetes mellitus and inflammatory gastric diseases, based on Japanese sophora and lupin and classified according to its chemical composition.

DISCUSSION

Within the CN FEA system, the code 1212 99 950 4 has been assigned to a “natural food supplement developed on the basis of medicinal plants such as Japanese sophora and lupin, containing dihydroquercetin, quercetin, and rutin.” This classification has been officially accepted for practical implementation by the State Customs Committee of the Republic of Uzbekistan (Reference No. 17/05-24-2133 dated April 12, 2024). As a result, this approach enables the classification of food supplements derived from Japanese sophora and lupin based on their chemical composition, thereby ensuring accurate identification within the framework of international trade and customs regulation.

CONCLUSION

The above analysis demonstrates that the classification of biologically active food supplements derived from medicinal plants is a complex and multifactorial process, based on their pharmacological effects, morphological structure, and, most importantly, their chemical

composition. Modern approaches increasingly emphasize the isolation of biologically active compounds and their classification based on chemical structure.

The growing global demand for biologically active supplements necessitates their proper classification and regulation within the international market. In this context, classification of such products according to the Commodity Nomenclature of Foreign Economic Activity (CN FEA) and the assignment of appropriate commodity codes play a crucial role in regulating export-import operations, ensuring accurate calculation of customs duties, and enhancing the competitiveness of national products.

The development and proposal of the commodity code 1212 99 950 4 for the “As Lupinus” food supplement enable its correct classification based on chemical composition, facilitate its application in customs practice, and support its entry into the global market in accordance with international standards. Thus, scientifically grounded classification and standardization of biologically active supplements not only ensure their quality but also improve their economic efficiency.

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