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O‘ZBEKISTON SHAROITIDA FITOBIOTIK OZUQA QO‘SHIMCHALARINI TAYORLASH IMKONIYATLARI

ВОЗМОЖНОСТИ ПРИГОТОВЛЕНИЯ ФИТОБИОТИЧЕСКИХ КОРМОВЫХ ДОБАВОК В УСЛОВИЯХ УЗБЕКИСТАНА

POSSIBILITIES OF PREPERING PHYTOBIOTIC FEED ADDITIVES IN UZBEKISTAN CONDITIONS

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Annotatsiya: *Maqolada O‘zbekiston sharoitida cho‘l va adir yaylovlarida o‘sadigan o‘simliklardan fitobiotik ozuqa qo‘shimchalari sifatida foydalanish uchun ularning turlariga tavsif keltirilgan.*

Аннотация: *В статье приводятся характеристики растениям произрастающих на пустынных и аридных пастбищах в условиях Узбекистана для использования в качестве фитобиотических кормовых добавок.*

Abstract: *The article presents the characteristics of plants growing in desert arid pastures in the conditions of Uzbekistan for use as phytobiotic feed additives.*

Kalit so‘zlar: *o‘simlik, fitobiotik ozuqa qo‘shimchasi, efir moyi, flavonoid, alkoloid.*

Ключевые слова: *растения, фитобиотическая кормовыя добавка, эфирное масло, флавоноид, алколоид.*

Key words: *plants, phytobiotic feed additive, essential oil, flavonoid, alkaloid.*

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Enter. It should be noted that the use of natural and environmentally friendly means in the process of ecologically clean and safe food products is an important task today. In the field of animal husbandry, the direction called “organic animal husbandry” has been supported by the public. Therefore, studies on the use of phytobiotic nutritional supplements in animal husbandry have been carried out, and according to the results, such supplements are considered natural growth biostimulators and are attracting interest today as a promising product to replace antibiotics and hormone preparations.

In this article, on the basis of the review of scientific research, the problems in animal husbandry and the reasons for the transition to organic animal husbandry are highlighted, the possibilities of using phytobiotic feed additives in animal husbandry and the field of veterinary medicine in animal husbandry are studied, the phytobiotic properties of desert and arid pastures in the conditions of Uzbekistan the aim is to describe the plants that have.

Methods. Description of medicinal and other plants of desert and semi-desert pastures of Uzbekistan [1,3] to study the scientific basis of mazuga using scientific sources and electronic resource search systems of scientific libraries, including: Web of Science (http://webofscience.com), Scopus (http://scopus.com), eLIBRERY (http://elibrery.ru), Google Scholar (https://scholar.google.com), Cyberleninka (https://cyberleninka.ru) and others were used.

Results. Today, as a result of the development of science in the field of biotechnology, the use of various chemical preparations, antibiotics, hormones and artificially synthesized

substances for feeding animals has raised the livestock industry to the stage of intensive development. However, as a result of their use, the quality of products and their technological properties in the production of finished products and the environmental situation were negatively affected. Therefore, in most countries, the use of antibiotics, hormones and chemical preparations as nutritional supplements in the livestock sector is strictly regulated or completely prohibited by law.

Organic animal husbandry involves the use of natural means in feeding farm animals, preventing and treating their diseases, and forming a strong immune system. As a result, ecologically clean meat, milk, eggs, etc. are safe products that do not harm human health. In addition, organic agriculture introduces technologies based on natural fertility and productivity, which do not harm the soil, water resources and the environment.

The reasons for the problems brought to the modern intensively developing animal husbandry industry are prohibited from their use in organic animal husbandry, including: antibiotics; hormonal preparations; syntenic substances and other stimulants; chemical feed additives and plant treatment with them; embryo transplantation; use of genetically-engineered-modified and transgenic organisms. In addition, the main principles of organic animal husbandry are as follows: use of natural and local feeds and natural feed additives; clean water supply, zoohygienic conditions and technologies that ensure health [2].

It is worth noting that today research is being conducted on the use of phytobiotic nutritional supplements for the production of ecologically clean and safe food products, and according to the results, such supplements are considered natural growth biostimulators, and today it is attracting interest as a promising replacement for antibiotics and hormonal drugs. [4, 5].

Phytobiotic nutritional supplement is a product made on the basis of plant components, the biologically active ingredients of which have anti-microbial and viral, antitoxic and antioxidant properties, and have a pleasant taste and smell. They are mainly prepared from herbs, and their biological effects are alkaloids, essential oils, flavonoids, is manifested in biologically active molecules in other substance compounds (https://ecobrand.su).

Alkaloids are a group of nitrogen-containing organic substances (amino acids, nucleotides, amides are not included in this group), which have strong physiological properties and consist of morphine, caffeine, cocaine, strychnine, quinine and nicotine. Alkaloids are medicinal in small quantities, and toxic in large quantities. Alkaloids protect plants from the development of fungi and from insects and other pests. Today, this group of substances has been studied as plant growth regulators and as neurotransmitters in animals.

Essential oils are volatile biochemical plant compounds as secondary metabolites in water-insoluble liquid form with a strong taste and smell. Essential oils have strong physiological and pharmaceutical properties. Among them, it has anti-inflammatory, antibacterial, pain-relieving, calming properties, and reduces the stress hormone - cortisol in the body.

Flavonoids belong to the group of plant pigments and take part in coloring fruits in yellow, red, purple and other bright colors. In addition to acting as a natural dye, these substances have antioxidant, astringent, antibacterial (antimicrobial) properties. Together with ascorbic acid, they ensure the strength of blood capillaries and the elastic properties of erythrocytes, reduce the amount of cholesterol in the blood and prevent the formation of blood clots, thereby improving the blood circulation system.

It should be noted that in the conditions of Uzbekistan, we believe that the use of natural resources, the preparation of phytobiotic nutritional supplements from the plants grown in the desert and arid pastures, and the use in feeding animals are of scientific and practical importance. The table below shows the description [based on the data of 1,3] of some plants found in the conditions of Uzbekistan, in desert and arid pastures, for use as phytobiotic feed additives.

Plants with phytobiotic properties and their characteristics in desert and arid pastures of Uzbekistan

	Plant type, local name (lotinian name)	**The main biologically active substance**	**Pharmacological properties**
	Tograyhon, jambil (Origanum tytthanhtum)	Essential oils (2.2-2.5%), carvalol, thymol	Digestive activator, antiseptic, antioxidant, activates subcutaneous and digestive glands
	Dalachoy (Hypericum scabrum L.)	Flavonoids (0.5-1.5%), rutin, quercetin, essential oils	Antiseptic, Anti-inflammatory
	Cherkez, Norboyalish, (Salsola richteri A. Nelson)	Alkaloid, salsolidin, salsolin (0.3%)	Dilating blood vessels, relaxing
	Cherkez (Salsola Paletzkiana Lit.)	Alkaloids, essential oils (0.2-0.5%)	Anti-inflammatory
	Qizilmiya, shirinmiya (Gysyrrhiza glabra L.)	Glycyrrhizic acid (8-13%), flavonoids (3-4%), saponins (8-9%),	Anti-inflammatory, expectorant, milk and meat production stimulant
	Isiriq, Adraspan (Peganum harmala L.)	Alkaloids, garmin (1.6-2.3%), phytocinds	Antibacterial, anti-inflammatory, anthelmintic
	Erman-shuvax	Essential oils (0.2-	Anthelmintic,

	(Serifidium halophilum)	0.5%), coumarin	anticoagulant, digestion activator

Conclusions. The preparation of phytobiotic feed additives from plants with phytobiotic properties growing in the conditions of Uzbekistan, deserts and arid, and their use in animal feeding serves the intensive development of organic livestock farming in the republic.

BIBLIOGRAPHY:

1. Благовещенский А.И.. Лекарственные ра**ст**ения пастбищ Узбекистана. Ташкент «Мехнат», 1989, - 134 с.

2. Волков А.Л., Папуниди Э.К., Якубова Л.Ф. Перспективы развития органического животноводства. Инновационные развитие науки: фунтаментальные и прикладные науки. г. Пертрозаводск, “Новая наука”, 2021, 131-144 с.

3. Гаевская Л., Сальманов Н. Пастбища пустынь и полупустынь Узбекистана. Издательство «Фан» Узбекской ССР, Ташкент 1975, -138 с.

4. Разумова, Н. Н. Фитогенная кормовая добавка в кормлении коров айрширской породы. Молодые исследователи агропромышленного и лесного комплексов – регионам: Сборник научных трудов по результатом работы VIII Всероссийской научно-практической конференции с международным участием, Вологда-Молочное, 20 апреля 2023 года. Том 3. – Вологда-Молочное: Вологодская государственная сельскохозяйственная академия им. Н.В. Верещагина, 2023. 91-95 с.

5. Молчанов А.А., Жукова И.А., Антипин С.Л. Обоснование использования фитобиотиков для коррекции защитных функций организма. Научный вестник Львовского национального университета ветеринарной медицины и биотехнологий им. С.З. Джицкого, 2016, 18(1-3): 76-81 с.

6. http://nvraion.ru

7. https://ecobrand.su

8. Elmuratotovna, S. F., Shavkatovich, B. F., & Amirovich, E. Y. Incubation Quality of Eggs of Different Category of Cross Lohmann Lsl-classic. JournalNX, 286-290.

9. Elmuratotovna, S. F., Shavkatovich, B. F., & Amirovich, E. Y. Egg Productivity of Chickens of Imported Crosses. JournalNX, 388-392.

10. Бойматов, О. С., & Холмирзаев, Д. (2024, January). РОСТ И РАЗВИТИЕ ПЛЕМЕННЫХ КОБЫЛ КАРАБАИРСКОЙ ПОРОДЫ. In E Conference Zone (pp. 39-42).

11. Қўзиев, И. Қ., Файзуллаев, О. Б., Тўхтаев, О. Б., & Бойматов, О. С. (2022). ОЗУҚА БАЗАСИНИ МУСТАҲКАМЛАШДА СЕНАЖ ТАЙЁРЛАШНИНГ АҲАМИЯТИ. AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI, 844-847.

12. Аралбаев, Ж., & Джумабаев, Д. (2011). СОЗДАНИЕ И РАЗВЕДЕНИЯ КАРАКУЛЬСКИХ ОВЕЦ СУР БУХАРСКОГО ТИПА. Овцы, козы, шерстяное дело, (2), 19-20.

13. Рузимурадов, Р. Р., Бойматов, О., & Аманова, О. (2020). ОСОБЕННОСТИ КАРАКУЛЬСКИХ ЯГНЯТ РАЗНЫХ СРОКОВ ЯГНЕНИЯ. In СОВРЕМЕННОЕ СОСТОЯНИЕ, ТРАДИЦИИ И ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В РАЗВИТИИ АПК (pp. 146-150).

14. Қўзиев, И. Қ., Файзуллаев, О. Б., Тўхтаев, О. Б., & Бойматов, О. С. (2022). ОЗУҚА БАЗАСИНИ МУСТАҲКАМЛАШДА СЕНАЖ ТАЙЁРЛАШНИНГ АҲАМИЯТИ. AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI, 844-847.

15. Bobokulovich, S. S., Ugli, B. O. S., & Ugli, I. K. N. (2021). Thickness, Silkiness and Shine of The Hairline of The Offspring of Rams of Different Factory Types.

16. Бойматов, О. С., & Холмирзаев, Д. (2024, January). КОРМЛЕНИЕ ПЛЕМЕННЫХ КОБЫЛ В ПЕРИОД ЖЕРЁБОСТИ. In E Conference Zone (pp. 8-11).

17. Polvonova, M. (2023). LANGUAGE AND CULTURE. YANGI O ‘ZBEKISTON, YANGI TADQIQOTLAR JURNALI, 1(1), 113-120.

18. Shaxzoda, R., & Qurbonov, D. R. (2023). OILADA MULKNING SHARTNOMAVIY KO’RINISHLARINING KAFOLATI. YANGI O ‘ZBEKISTON, YANGI TADQIQOTLAR JURNALI, 1(1), 121-126.

19. Abdupattoevich, K. R., & Musajonovich, X. M. (2023). TALABA-YOSHLARNI HARBIY VATANPARVARLIK TARBIYASINI SPORT MUSOBAQALARI VOSITASIDA RIVOJLANTIRISH. YANGI O ‘ZBEKISTON, YANGI TADQIQOTLAR JURNALI, 1(1), 127-129.

20. Kamolitdinivich, N. M., & Ibragimjanovich, T. I. (2023). BO ‘LG ‘USI CHQBT O ‘QITUVCHILARINI HARBIY VATANPARVARLIK TARBIYASINI MUSTAXKAMLASHGA QARATILGAN IMKONIYATLARI VA ISTIQBOLLARI. YANGI O ‘ZBEKISTON, YANGI TADQIQOTLAR JURNALI, 1(1), 130-133.