

INSECTICIDAL EFFECT OF THE ALPHA-SHAKTI PREPARATION AGAINST FLIES AND PATHORS

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Abstract:

This article provides data on the insecticidal properties of the drug alpha-shakti against down feather eaters, one of the most common ectoparasites of poultry farming in recent years.

Keywords: alpha-shakti, poultry, pheasant, pheasant, insecticide, concentration, parasite, pyrethroid, ectoparasite, emulsion.

Introduction

Relevance of the topic In recent years, due to the difficulty of supplying poultry farms with medicines, insecticides and other preparations, the increase in migration of poultry, the deterioration of the sanitary conditions in poultry houses, the sharp increase in ectoparasites among poultry, especially feather and feather feeders, has resulted in the death of chicks. swelling and lagging behind in development, there is a sharp decrease in the productivity of older chickens.

This is a serious obstacle to meeting the urgent problems of meeting the population's demand for high-quality and ecologically clean poultry meat and egg products. Currently, in all countries, it is an urgent problem to determine the epizootology of these ectoparasites, to develop modern methods of treatment and prevention.

The purpose of the study. Alfa-Shakti 10% EC (India) is a laboratory study of the insecticidal properties of the pyrethroid drug against feathers and midges, which are common among poultry.

Research materials and methods. Modern recommendations and methodical manuals of parasitological, entomological, epizootological, microscopic examination, ecological-faunistic and veterinary parasitology sciences were used in the research.

The results of the studies obtained. Currently, new pyrethroids and phyto-based insecticides are widely used in the fight against ectoparasites of poultry. Taking this into account, we studied the insecticidal properties of the new alpha-shakti 10% EC (Heranba Industries



Limited, India) pyrethroid drug, which has well-studied toxicological properties and does not have carcinogenic, mutagenic, or embryotoxic properties, in laboratory conditions. In this case, the aqueous emulsion and powder forms of the alpha-shakti drug in different concentrations were prepared and tested in laboratory conditions against the feathers and feathers of birds.

Different concentrations of the new alpha pyrethroid drug being studied for the first time, i.e. 0.008, 0.01, 0.02, 0.025, 0.03, 0.035, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.1, 0.2, 0.3, 0.4 percent aqueous emulsion was prepared and placed on the filter paper placed in a Petri dish, and the aqueous emulsion of the drug in the experiment was sprinkled using a spray dispenser, and this medicated filter paper 30 samples of freshly harvested herbs were released on the surface of the farm, and as a result of the tests, in order to determine the minimum and most effective (100 percent) concentration of these preparations, the following tests were carried out:

Experiment 1: Filter paper was placed in 3 Petri dishes, and the surface of each filter paper was treated with 3.8 ml of 0.008% aqueous emulsion of alpha-shakti drug. On the surface of this medicated filter paper, 30 newly collected spores and spores were released, and after 10 minutes, they were transferred to clean Petri dishes and kept under optimal conditions, i.e., a thermostat at a temperature of +35 °C, every 1, 3, 6, observation was carried out for 24 hours;

Experiment 2: Experiments were carried out as mentioned above, only 0.01% aqueous emulsion of alpha-shakti drug was tested;

Experiment 3: Experiments were carried out as mentioned above, only 0.015% aqueous emulsion of alpha-shakti drug was tested;

Experiment 4: Experiments were carried out as mentioned above, only 0.02% aqueous emulsion of alpha-shakti drug was tested;

Experiment 5: Experiments were carried out as mentioned above, only 0.025% aqueous emulsion of alpha-shakti drug was tested;

Experiment 6: Experiments were carried out as mentioned above, only 0.03% aqueous emulsion of alpha-shakti drug was tested;

Experiment 7: Experiments were carried out as mentioned above, only 0.035% aqueous emulsion of alpha-shakti drug was tested;

Control group 8: The same experimental work was carried out as mentioned above, only treated with clean water. The results of the experiment were determined after 24 hours, and the number of dead and alive birds and gnats was calculated.

As a result, the drug's OK0 (non-lethal concentration), OK50 (50% lethal concentration) and OK100 (100% lethal concentration) indicators of the drug were determined.

Each concentration was repeated 3 times.

The effectiveness of the drug was also determined depending on the rate and amount of death of drug addicts. In this,

- 0 percent of wool eaters in experimental group 1;
- 20 percent of wool eaters in experimental group 2;
- 40 percent of the fur eaters in the 3rd experimental group;
- 50 percent of the fur eaters in the 4th experimental group;
- 70 percent of the fur eaters in the 5th experimental group;
- 100 percent of wool eaters in experimental group 6;



100 percent of the wool eaters in the 7th experimental group died;
8-100% of the wool eaters in the control group were found to be alive (Table 1).

Table 1 Experience of studying the insecticidal effect of aqueous emulsions of alpha shakti drug in laboratory conditions

Experimental groups	Drug use concentration (s.e., percent)	Medicated Number of feathers and tails (copy)	Number of dead birds and birds (copy)			Efficiency (percentage)
			After an hour			
			1	6	24	
1	0,008	30	0	0	0	0
2	0,01	30	0	2	6	20
3	0,015	30	0	7	12	40
4	0,02	30	1	8	15	50
5	0,025	30	3	14	21	70
6	0,03	30	6	22	30	100
7	0,035	30	6	26	30	100
8	Control (treated with clean water)	30	0	0	0	0

So, the minimal and 100% effective 0.03% and 0.035% aqueous emulsions of alpha-shakti drug were found to be 100% insecticidally effective against flies and moths in laboratory conditions.

Similar experimental work was repeated in laboratory conditions with the powder form of the drug alpha-shakti with different concentrations 3 times, and the same insecticidal effect was obtained against moths and moths (Table 2).

Table 2 Experience of studying the insecticidal effect of powder forms of alpha-shakti drug in laboratory conditions

Experimental groups	Drug use concentration (s.e., percent)	Medicated Number of feathers and tails (copy)	Number of dead birds and birds (copy)			Efficiency (percentage)
			After an hour			
			1	6	24	
1	0,03	30	0	0	0	0
2	0,05	30	0	6	12	40
3	0,08	30	0	9	15	50
4	0,1	30	1	19	24	80
5	0,2	30	3	21	27	90
6	0,3	30	6	26	30	100
7	0,4	30	6	27	30	100
8	Control (treated with clean water)	30	0	0	0	0

Thus, it was found that the 0.3 and 0.4 percent powder forms of the alpha-shakti drug are 100 percent insecticidal in laboratory conditions against birds and moths.



Summary

1. O'K0 (non-lethal concentration) of the drug Alfa-shakti in laboratory conditions for birds and rodents is 0.008, the average O'K50 (50% lethal concentration) is 0.02, and the minimum and The insecticidal efficiency of highly effective O'K100 (100 percent lethal concentration) - 0.03 percent aqueous emulsions was determined.

2. O'K0 (non-lethal concentration) of Alpha-Shakti drug in laboratory conditions for birds and rodents is 0.03, the average O'K50 (50% lethal concentration) is 0.08 and the most The insecticide efficiency of minimal and highly effective O'K100 (100 percent lethal concentration) - 0.3 percent powder form was determined.

References

1. Pulatov F.S., Ismoilov A.Sh., Rakhimov M.Yu., Abdullaeva D.O., Sayfiddinov B.F., Ruzimurodov A.R., "Fauna and ecology of zooparasites in zoobiocenoses", Turkish Journal of Physiotherapy and Rehabilitation; 32(2) ISSN 2651-4451 | e-ISSN2651-446X www.turkjphysiotherrehabil.org
2. Pulatov F.S., Rakhimov M.Yu. Ismoilov A.Sh., Boltaev D.M., Sayfiddinov B.F. Ecogenesis of ectoparasites of agricultural animals. Eurasian Medical Research Periodical, 27 March. 2022, volume 6, pp. 165-167, ISSN 2795-7624. <https://geniusjournals.org>
3. Pulatov F.S., Rakhimov M.Yu., Ismoilov A.Sh., Boltaev D.M., Kamalova A.I., Djalolov A.A., "Fauna and phenoecology of zooparasites", Annals of forest research Scopus journal 65 (1), page: 854-863, 2022. <https://www.e-afr.org/>.
4. Elmurodov, B. A. (2002). Detection of mixed bacterial infections in calves. Journal of Agriculture of Uzbekistan. Tashkent, 3, 63.
5. Эльмуродов, Б. А. (2003). Смешанные инфекции телят. Ветеринарная патология, (2), 52-53.
6. Azamov, V., Elmurodov, B., Parmanov, J., & Abdalimov, S. (2004). Changes in the intestinal system in colibacillosis. In Proceedings of the Third Republican Scientific-Practical Conference, Samarkand (pp. 9-12).
7. Abdalimov, S. A., Parmanov, J. M., & Elmurodov, B. A. (2004). Sheep pasteurellosis//Third Res. II-Amal. konf. ma'r. Collection of texts.
8. Элмуродов, Б. А. (2005). Клинические изменения при смешанных бактериальных инфекциях птиц.
9. G'aniyev, I., & Elmurodov, B. A. (2008). Course and clinical signs of sheep pasteurellosis. In Four. ilm.-amal. konf. ma'r. text collection. Samarkand (pp. 94-96).
10. Duskulov, V. M., Elmurodov, B., & Meyliev, M. (2018). Highly profitable sector of beekeeping. Veterinary Medicine, 12.
11. Элмуродов, Б. А., Турдиев, А. К., & Набиева, Н. Куёнчилик укув кўлланма. Самарканд-2018, 72-73.
12. Эльмуродов, Б. А., Наврузов, Н., & Курбонов, Ф. (2019). Патологоанатомические изменения при смешанных бактериальных инфекциях птиц.



13. Эльмурадов, А., & Эльмурадов, Б. А. (2019). Содержание нуклеиновых кислот в стенках двенадцатиперстной кишки у каракульских овец различного возраста и в разные сезоны года.
14. Navruzov, N. I. The Role of Immunostimulants in the Prevention of Colibacillosis, Salmonellosis and Pasteurellosis in Calves. *International Journal on Integrated Education*, 3(8), 232-234.
15. Элмуродов, Б. А., & Эшбуриев, С. Б. (2021). ТОВУҚЛАРДА МИНЕРАЛЛАР АЛМАШИНУВИ БУЗИЛИШЛАРИНИНГ КЛИНИК БЕЛГИЛАРИ. ВЕСТНИК ВЕТЕРИНАРИИ И ЖИВОТНОВОДСТВА, 1(1).
16. Муродов, Х., Элмуродов, Б., Шодиева, У., & Ахмедов, Б. (2021). Профилактика и лечение инфекционного ларинготрахеита птиц. in *Library*, 21(2).
17. Navruzov, N. I., Elmurodov, B. A., & Mamadullaev, G. K. (2021). THE ROLE OF CHITOSAN IN THE PATHOMORPHOLOGY AND IMMUNOPROPHYLAXIS OF COLIBACILLOSIS OF CALVES.
18. Ахмадалиева, Л. Х., Элмуродов, Б. А., & Орипов, А. О. (2021). ПРАВОВАЯ ОХРАНА ЗДОРОВЬЯ ЖИВОТНЫХ И ЭКОСИСТЕМ В НИИ ВЕТЕРИНАРИИ. ББК 40.0 П78, 378.
19. Nabieva, N. A., Elmurodov, B. A., & Aktamov, U. B. (2022). Biochemical Changes in Blood in Rabbit *Pasteurella's*. *Texas Journal of Medical Science*, 13, 115-118.
20. Elmurodov, B. A., Navruzov, N. I., & Kiyamova, Z. N. (2022). Intervention of Bacterial Diseases in Poultry. *INTERNATIONAL JOURNAL OF BIOLOGICAL ENGINEERING AND AGRICULTURE*, 1(4), 8-12.
21. Элмуродов, Б. (2022). Ветеринария илм-фанининг истиқболлари ва соҳани ривожлантиришдаги муҳим вазифалар. Перспективы развития ветеринарной науки и её роль в обеспечении пищевой безопасности, 1(2), 462-464.
22. Элмуродов, Б., & Исмоилов, У. (2022). Молодняк животных в районах приаралья течение колибактериоза и сальмонеллеза. Перспективы развития ветеринарной науки и её роль в обеспечении пищевой безопасности, 1(1), 233-235.
23. Элмуродов, Б., & Исмоилов, У. (2022). Текст научной работы на тему Течение колибактериоза и сальмонеллеза молодняка в Приаралье. Перспективы развития ветеринарной науки и её роль в обеспечении пищевой безопасности, 1(2), 307-309.
24. Эльмурадов, Б. (2022). Перспективы ветеринарии и важные задачи развития отрасли. Перспективы развития ветеринарной науки и её роль в обеспечении пищевой безопасности, 1(1), 9-12.
25. Sh, N., Elmurodov, B. A., & Eshburiev, S. B. (2022). TUXUM YONALISHDAGI TOVUQLAR MAHSULDORLIGIGA NOVAMIX PREMIKSINING TASIRI. *AGROBIOTEKNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI*, 476-479.
26. Набиева, Н., Элмуродов, Б., & Сайдуллаев, А. (2022). Эпизотология пастереллиоза кроликов. Перспективы развития ветеринарной науки и её роль в обеспечении пищевой безопасности, 1(1).

27. Hamraqulov, N. S. (2022). SYMPTOMS AND HEMATOLOGICAL INDICATORS OF CALCIUM AND PHOSPHORUS EXCHANGE DISORDERS IN CHICKEN IN EGGLAYING HENS. Conferencea, 92-94.
28. Султанова, И., & Элмуродов, Б. (2022). Течение и бактериологическое течение сальмонеллы у кроликов методы проверки. Перспективы развития ветеринарной науки и её роль в обеспечении пищевой безопасности, 1(2), 187-191.
29. BA, Elmurodov, et al. "Pathomorphological Changes in Poultry Pasteurelliosis, Pullorosis and Colibacteriosis Diseases." (2023).
30. Aktamovich, E. B., Bakhtiyorovich, E. S., & Shokir, H. N. (2023). Prevention of Calcium Phosphorus Exchange Disorders in Chickens. Web of Semantic: Universal Journal on Innovative Education, 2(6), 222-228.
31. Мамадуллаев, Г. Х., Элмуродов, Б. А., Джураев, О. А., Джуракулов, О. К., & Файзиев, У. М. (2023). РИФИЗОСТРЕП–НОВЫЙ КОМБИНИРОВАННЫЙ ПРЕПАРАТ ПРОТИВ МИКОБАКТЕРИЙ ТУБЕРКУЛЁЗА. Эпизоотология Иммунобиология Фармакология Санитария, (2), 52-57.
32. Navruzov, N. I., & Elmurodov, B. A. THE ROLE OF CHITOSAN SUCCINATE IN COLIBACILLOSIS OF CALVES AND THE EFFECT ON THE IMMUNE SYSTEM. СБОРНИК ТЕЗИСОВ, 50.
33. Nabieva, N. A., & Profissor, B. E. V. (2023). PATHOGISTOGRAM OF PASTEURELLOSIS OF RABBITS. European International Journal of Multidisciplinary Research and Management Studies, 3(01), 92-98.
34. Elmurodov, B. A., Abdalimov, S. H., & Sheralieva, I. D. Diseases of young animals Samarkand 2016.
35. Алламуродова, М., Киямова, З., & Элмуродов, Б. А. (2024). ИННОВАЦИОННЫЙ ПОДХОД К ПРОФИЛАКТИКЕ ЗАБОЛЕВАНИЙ ЖИВОТНЫХ. World scientific research journal, 25(1), 128-133.
36. Набиева, Н. А., & Элмуродов, Б. А. (2024). ҚУЁНЛАР ПАСТЕРЕЛЛЁЗИНИ ДАВОЛАШДА АНТИБИОТИКЛАР САМАРАДОРЛИГИ. World scientific research journal, 25(1), 134-140.
37. Navruzov, N. I., Kiyamova, Z. N., & Elmurodov, B. A. (2024). SALMONELLA PULLOROM GALLINARIUM BILAN ZARARLANGAN JO ‘JALARDA PATOMOFOLOGIK O ‘ZGARISHLAR. World scientific research journal, 25(1), 141-151.
38. Элмуродов, А. А., Абдуллаева, Ю. У., & Абдуллаева, С. А. (2023). ЭФФЕКТИВНОСТЬ ВЫРАЩИВАНИЯ СЕМЕННЫХ КЛУБНЕЙ СОРТОВ КАРТОФЕЛЯ IN VITRO В УСЛОВИЯХ ЗЕРАВШАНСКОЙ ДОЛИНЫ. Бюллетень науки и практики, 9(1), 173-181.
39. Элмуродов, А. А., & Абдуллаева, Ю. У. ЭФФЕКТИВНОСТЬ ВЫРАЩИВАНИЯ СЕМЕННЫХ КЛУБНЕЙ СОРТОВ КАРТОФЕЛЯ IN VITRO В УСЛОВИЯХ ЗЕРАВШАНСКОЙ ДОЛИНЫ.
40. Элмуродов, Б. А., Наврузов, Н. И., Набиева, Н. А., Ахмадалиева, Л. Х., & Киямова, З. Н. Инновационные вакцины для профилактики пастереллеза кроликов и других животных. In Современные достижения в решении актуальных проблем



агропромышленного комплекса: материалы международной научно-практической конференции, посвященной 100-летию Института экспериментальной ветеринарии им. СН Вышелеского (Минск, 15-16 сентября 2022 г.) (pp. 282-284).

41. Расулов, У., Хушназаров, А., & Камалов, Ф. (2020). Защитим крупный крот от тейлерозационной болезни. in *Library*, 20(4), 15-16.

42. Газнакулов, Т. К., Орипов, А. О., Сафаров, А. А., Хушназаров, А. Х., Давлатов, Р. Б., Абдухакимов, Ш., & Мавланов, С. (2023). ХС Салимов, МК Бутаев, ЗЭ Рузиев, – Биохавфсизлик.

43. Хушназаров, А., & Муртозаев, Н. (2020). Цистицеркоз билан касалланишни камайтиришнинг замонавий тамойиллари. in *Library*, 20(4), 20-21.

44. Газнакулов, Т., & Хушназаров, А. (2023). Литературный обзор по истории развития эпизоотологии и изучения бешенства. in *Library*, 1(2), 7-9.

45. Davlatov, R. B., & Khushnazarov, A. K. (2024). Diagnosis and chemoprophylaxis of rabbit eumeriosis. In *E3S Web of Conferences* (Vol. 480, p. 03020). EDP Sciences.

46. Khushnazarov, A. X. (2022). OBZOR LITERATURNYX DANNYX PO KHMIIOTERAPII I KHMIIOPROPHYLAKTIKI EYMEROZA KROLIKOV. *Journal of PEDAGOGS*, 23(2), 83-86.

47. Хушназаров, А. Х. (2022). ОБЗОР ЛИТЕРАТУРНЫХ ДАННЫХ ПО ХИМИОТЕРАПИИ И ХИМИОПРОФИЛАКТИКИ ЭЙМЕРИОЗА КРОЛИКОВ. *PEDAGOGS jurnali*, 23(2), 83-86.

