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SPREAD OF ECTOPARASITES IN POULTRY AND PREVENTIVE MEASURES

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Abstract
The article provides a detailed description of research conducted on the prevalence of dominant ectoparasites found in poultry farms and households in the Nukus city area of the Karakalpakstan Republic during the hot season of the year, as well as measures to prevent their spread.

Keywords: Ectoparasite, Mallophaga, Argas persicus, chicken, parasitism, feather louse, poultry farming.

Introduction

Poultry farming in the Republic of Uzbekistan has been one of the rapidly developing sectors in recent years, with the volume of chicken meat and egg production increasing year by year. However, ectoparasites found among poultry are negatively affecting their health, growth, and productivity.

Birds play an important role in our lives with their diversity and ecological significance. However, they are also exposed to many ecological factors, including ectoparasites. Ectoparasites are insects living and feeding on the external organs of birds. These organisms can cause various damages to their hosts, such as weakening the immune system, causing itching, skin inflammations, and contributing to the spread of diseases.

This article discusses the types of ectoparasites in poultry, their impact on the birds' lives, and methods of controlling them. Combating ectoparasites in poultry farming, especially in agricultural sectors, is particularly important as it affects not only the health of chickens or other poultry but also the efficiency of production.

Ectoparasites have various ecological and morphological characteristics and can be dangerous for poultry. Some of them live as permanent parasites, while others make occasional visits. In this article, we will focus specifically on the most common types of ectoparasites for poultry and effective methods of controlling them.

In the hot and dry climate of Karakalpakstan, ectoparasites actively multiply. In poultry farms, failure to fully comply with hygiene requirements, overcrowding of birds, and inadequate implementation of disinfection measures further exacerbate this problem.

For this reason, studying the spread of ectoparasites in chickens and developing effective preventive measures against them is one of the important and urgent tasks for poultry farming in Karakalpakstan.

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Research objective

To determine the prevalence of ectoparasites among poultry, their main species, factors of infestation, and the dynamics of occurrence of the dominant ectoparasite species in the conditions of Nukus.

Research Materials and Methods

In the research, parasitological, entomological, epizootological, microscopic examination, and modern recommendations and methodological guidelines of veterinary parasitology sciences were used.

Research Results

Based on observations conducted in the Nukus city area of the Karakalpakstan Republic, it has been determined that the spread of ectoparasites among chickens remains at a high level. Across the republic, the majority of poultry (approximately 80 percent) are kept in household and small farmer farms, which leads to the widespread distribution of parasites due to non-compliance with hygiene requirements, lack of cleaning in living spaces, and insufficient veterinary services.

In the area of Nukus city, route inspections were mainly conducted in the territory of the Qutli Qadem Neighborhood Association and at the Broiler O'nimleri Limited Liability Company during August-September. According to the inspection results, a total of 1209 poultry underwent entomological and parasitological examinations, from which ectoparasites such as mites, lice, and feather mites were collected. Their species were then identified in laboratory conditions using a microscope.

1-Image. Route Inspection Process

During route inspections, no ectoparasites were found on broiler chickens at the Broiler O'nimleri LLC, because the company has created all necessary conditions and adhered to hygienic requirements. Several poultry ectoparasites were found in chicken coops in residential areas (Table 1, Image 2).

The argas persicus mite of poultry is mainly adapted to parasitize in the evening, and therefore

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these mites were collected in the evening from chicken coop walls and wooden debris. During the examination, it was observed that the mites parasitize on the legs of poultry.

Feather lice and biting lice are usually collected from around the cloaca and between the legs of birds. Typically, these ectoparasites feed on feathers or dead skin particles.

Table 1 Ectoparasites found during inspections in August-September at the MPJ territory and the Broiler Products Limited Liability Company.

		Found Ectoparasite Species			
Bird species	**Head count**	**Argas persicus**		**Feather lice and biting lice**	
		specimens	**%**	**specimens**	**%**
Domestic chickens	139	24	17.2	78	56.1
Domestic chicken chicks	55	12	21.8	26	47.3
Domestic turkey	9	1	11.1	8	88.9
Domestic goose	6	2	33.3	4	66.7
Broiler products f/x Broiler chicks.	1000	-	-	-	-
Total	**1209**	**39**	**3.2**	**116**	**9.6**

Figure 2. Ticks of the species Feather lice and Argas persicus found on chickens.

Preventative measures against chicken ectoparasites.

1. Compliance with sanitary and hygiene requirements.

The first and most important measure against the spread of ectoparasites is to observe sanitation and hygiene rules. Parasites spread quickly in an environment that is not thoroughly cleaned and is unhygienic.

Cleaning from manure, waste, and other filth: The areas where chickens live should be cleaned regularly, and all waste and filth should be removed. This not only stops the development of parasites but also prevents the multiplication of bacteria.

Initial disinfection: It is necessary to completely disinfect the chickens' living environment with various chemical disinfectants before placing the chickens.

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2. Chemical Preparations Against Ectoparasites

Chemical preparations against ectoparasites are especially effective means of preventing parasite proliferation in poultry. These mainly include:

Pesticides: These agents must be intended for washing poultry and it is necessary to follow the manufacturer's instructions.

Important Note: When using chemical preparations, it is crucial to strictly adhere to dosage and usage guidelines. Preparations used for chicken meat or eggs must be safe to avoid other harmful effects.Regular Chicken InspectionChecking Chickens: It is necessary to examine chickens daily to detect changes in skin, signs of suppuration, or itching. In such cases, immediate necessary measures can be taken.

Disinfection: When moving or transferring chickens to new locations, it is necessary to disinfect their living spaces with special antimicrobial and antiparasitic agents.

3. Isolation and Quarantine

Newly arrived or sick chickens must be isolated and kept in quarantine conditions. This method helps prevent the spread of new parasites and diseases.

In summary, the widespread presence of ectoparasites among poultry is one of the main factors reducing poultry productivity. According to research results, the overall infestation level in August-September is 17.28%, of which Argas persicus accounts for 3.22%, and Mallofaga for 1.32%. These parasites cause anemia, weakness, and a decrease in egg-laying in poultry. To prevent this problem, regular disinfection of chicken coops, strict adherence to hygiene requirements, and veterinary.

Preventive measures against ectoparasites in poultry include multiple methods, but for effective results, they must be applied comprehensively. By using sanitation, chemical agents, regular inspections, proper care, and natural approaches, it is possible to reduce the spread of ectoparasites in chickens. This serves to improve not only the health of poultry but also their production efficiency.

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