

Report of pullorum disease in the Somali Democratic Republic

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RÉSUMÉ

Note sur la pullorose en République Démocratique de Somalie

Les auteurs signalent que la pullorose sévit, en République Démocratique de Somalie, dans les élevages aviaires industriels aussi bien que dans les élevages ruraux traditionnels qui peuvent constituer un important réservoir potentiel de la maladie alors que cet élevage représente une importante source de protéines pour la population.

1. INTRODUCTION

The presence of pullorum disease was reported in the Somali Democratic Republic (SDR) from 1976 (2); a study performed in 1974 by members of our Institute revealed positive reactions both in large farms and in traditional rural flocks (3).

The present research was made to ascertain the presence and diffusion of pullorum disease not only in large poultry farms in which the disease had already been diagnosed (1), but also in the traditional rural flocks.

2. MATERIALS AND METHODS

Six hundred White Leghorn chickens (about 10 p. 100 of the birds present in each farm) from 3 intensive farms in the Mogadishu area were examined, namely : 300 from farm A, 200 from farm B and 100 from farm C.

Four hundred and ninety chickens of indigenous breeds were also examined, namely : 239 at the market of Mogadishu, 150 at the market of Afgoi and 100 at the market of Hargeisa. These birds came from a variety of rural flocks in the above areas.

The blood samples from these animals were tested by rapid agglutination.

One hundred and twenty-eight dead chicks (1-2 weeks old) from farm A and 60 dead embryonated eggs incubated at farm B were examined. The livers and hearts of the chicks and the yolk sacs of the embryonated eggs were cultured on SS agar, brilliant-green agar and desoxycholate agar.

The isolates referable to *Salmonella* spp. were assayed on Kligler's medium. They were subsequently examined for motility and production of H₂S in SIM medium, urease in Christensen's medium and glucose fermentation in Purple Broth. The strains identified as *Salmonella* spp. were tested by rapid agglutination with monospecific *S. gallinarum* serum.

3. RESULTS

The results of serological tests are shown in table I.

Three hundred and twenty-nine (54.8 p. 100) out of the 600 chickens from the intensive farms and 20 (4.1 p. 100) out of the 490 chickens from rural flocks proved positive.

TABLE 1. — Serological investigations for *Salmonella gallinarum*

Origin of the animals	No. examined	No. positive	%
Intensive Farm	600	329	54.8
Farm A	300	221	
Farm B	200	81	
Farm C	100	27	
Rural flocks	490	20	4.1
Mogadishu market	239	5	
Afgoi market	151	10	
Hargeisa market	100	5	

S. gallinarum was isolated from 95 (74.2 p. 100) out of the 128 chicks of farm A and from 2 (3.3 p. 100) dead embryos out of the 60 eggs incubated at farm B.

4. DISCUSSION

In our research, two different methods for poultry breeding were considered : intensive farming and rural farming.

In the intensive farms, pullorum disease appears to be of great importance ; the isolation of *S. gallinarum* from 95 (74.2 p. 100) out of the 128 dead chicks from farm A demonstrates that a high percentage of mortality is due to this condition. The wide spread of the infection in intensive farms was confirmed also by our serological investigations. *S. gallinarum* was also isolated from 2 out of the 60 dead embryonated eggs from farm B ; this demonstrated that the infection was present also in the incubators.

In rural flocks, the infection was found less frequently : this may be due to the absence of those conditions which may favour its spread in large flocks, or to the fact that probably only a few chicks may survive the infection.

The creation of large flocks has served to monitor the presence of this disease and other related poultry pathologies in rural flocks. At present, rural flocks are a very important source of food for rural population, but they can play an important role as a potential disease reservoir.

Resumen

Nota sobre la pulorosis en la República Democrática de Somalia

Los autores señalan que la pulorosis se encuentra, en la República Democrática de Somalia, en las crías de aves de corral industriales y también locales tradicionales que pueden constituir una reserva potencial de dicha enfermedad mientras esta cría representa una fuente importante de proteínas para la población.

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