

RABBIT DISEASES IN SOME RABBITRIES IN THE BANDUNG MUNICIPAL AREA¹⁾

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ABSTRACT

A survey on rabbit diseases in some rabbitries in the Bandung Municipal area was conducted. The observation was based on clinical signs. The causal agents were determined by bacteriological examination. Specimens were taken depending on the clinical signs which were found concurrently. Fourty rabbits in 15 rabbitries were found suffering from several diseases. Seventy five percents and 25% were seen suffering from parasitic and bacterial diseases respectively. These diseases were diagnosed as pneumonia, conjunctivitis, rhinitis, otitis, enteritis, sore-hocks and ulcerous dermatitis. Result of the parasitological examination showed that scabies of these rabbit was caused by *Notoedres cati*, while the bacterial infections involved *Staphylococcus epidermidis*, *Escherichia coli*, *Proteus mirabilis*, *Neisseria catarrhalis* and *Aeromonas punctata*. These diseases are suspected as those causing economic losses and act as constraints of the Indonesian rabbitries development.

ABSTRAK

Telah dilakukan survei mengenai penyakit kelinci pada beberapa peternakan kelinci di daerah Bandung dan sekitarnya. Pengamatan didasarkan atas tanda-tanda klinis dan dilanjutkan dengan pemeriksaan bakteriologi dan parasitologi untuk menentukan agen penyebabnya. Spesimen diambil dari kelinci yang memperlihatkan tanda-tanda sakit. Empat puluh ekor kelinci dari 15 peternakan kelinci menderita beberapa macam penyakit, 75% menderita penyakit kulit karena parasit dan 25% menderita penyakit bakteri, antara lain pneumonia, konyuntivitis, rinitis, otitis, enteritis, sore-hocks dan luka pada kulit. Hasil pemeriksaan parasitologi ditemukan *Notoedres cati* sebagai penyebab utama scabies pada kelinci, sedangkan hasil pemeriksaan bakteriologi dari penyakit tersebut di atas ditemukan *Staphylococcus epidermidis*, *Escherichia coli*, *Proteus mirabilis*, *Neisseria catarrhalis* dan *Aeromonas punctata*. Penyakit-penyakit tersebut diduga menimbulkan kerugian ekonomi di kalangan peternak kelinci dan merupakan salah satu faktor penghambat dalam upaya pengembangan ternak kelinci di Indonesia.

INTRODUCTION

The rabbits (*Oryctolagus cuniculus*) have the potential to be good meat producers, because they are easy to domesticate, reproduce and grow rapidly (Farrel and Rahardjo, 1984). However, there are many problems in the domestic breeding of rabbits. There are many diseases which infect rabbits and among them frequently found affecting the digestive and respiratory systems and the skin. Diseases responsible for rabbit mortalities include enteritis complex, which can be caused by bacteria (*Escherichia coli* and *Salmonella* sp.), virus (rotavirus) and parasites (*Eimeria flaversens*) (Whitney, 1979; Morisse, 1982; Harkness and Wagner, 1983).

This paper describes the results of field observation in the municipal area of Bandung, and the isolation of causative agents, especially bacteria.

MATERIALS AND METHODS

Materials

Specimens were taken from sick rabbits with clinical symptoms and from carcasses. The specimens from sick rabbits consisted of blood, pus from wounds, swabs of the conjunctiva, faeces and skin scraping, and those from carcasses were lymph, liver, heart, kidney and intestine.

Methods

Specimens obtained from the field were examined both bacteriologically and parasitologically to deter-

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mine the causative agents, following the methods of Carter (1984) and Sloss *et al.* (1977).

Specimens assigned for bacteriological examination were blood agar cultures and stained with Gram's stain. Identification was made using several biochemical tests on specific media.

For parasitological examination, skin scrapings were mixed with 5 – 10% KOH and examined under the microscope.

RESULTS AND DISCUSSION

Field Study

Based on field observations of 15 rabbitries, several diseases were identified. Seventy five percent of these animals suffered from skin disease (mange), and the other 25% from bacterial diseases. These diseases were scabies, pneumonia, conjunctivitis, rhinitis, otitis, enteritis, sore-hocks and ulcerous dermatitis.

Laboratory Study

Results of the parasitological examination showed that the rabbit scabies was caused by *Notoedres cati*. The mites were isolated from skin scrapings from the facial hair, head and proximal ear, and the orbital area. Rabbits infected by mites showed the following clinical signs: itching, skin degeneration, restlessness, loss of appetite (anorhexia) and death (Harkness and Wagner, 1983).

The bacteriological examination demonstrated several bacteria viz.: *Staphylococcus epidermidis*, *Escherichia coli*, *Proteus mirabilis*, *Neisseria catarrhalis* and *Aeromonas punctata*. In this case, *S. epidermidis* and *P. mirabilis* were mostly isolated from lesions in ulcerous dermatitis, sore-hocks, otitis and rhinitis. *E. coli* and *A. punctata* were isolated from cases of enteritis, while *N. catarrhalis* from cases of conjunctivitis. Mixed infection of these bacteria caused from light disorders to death of the animals (Weisbroth *et al.*, 1974).

CONCLUSION AND RECOMMENDATION

Based on the results of this study, it was concluded that disease is an important factor inhibiting the domestication of rabbits. The diagnosis of disease should be the first step prior to treatment, if a maximum production is to be attained in rabbit farming.

It is suggested that breeding management, especially sanitation of cages and the hygiene of feed has to be given particular consideration in order to assist the prevention of the occurrence of disease.

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