



NIGERIAN VETERINARY MEDICAL ASSOCIATION

BOOK OF PROCEEDINGS

For the

36TH ANNUAL NATIONAL CONGRESS

Theme:

**THE ROLE OF THE VETRINARIAN
IN THE 21ST CENTURY
CHALLENGES OF PRIVITISATION**

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LAWSONIA INTERMIS An Alternative to Ivermectin and Doramectin preparations in the treatment of mange.

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ABSTRACT

The pharmacological activity of extract of *Lawsonia intermis* on mange infested New Zealand and Dutch rabbits were compared with those of Ivermectin and Doramectin.

The efficacy of the *Lawsonia intermis* extract was comparable to those of Ivermectin and Doramectin.

The efficacy of the lawsonia intermis extract was comparable to those of ivermectin and Doramectin. A total of 39 mange infested rabbits (20 New Zealand white and 19 Dutch breeds) were randomly divided into 3 groups of 13 animals per group and assigned to each drug.

The result showed that while *Lawsonia intermis* extract achieved 90% efficacy, the other two had 100% efficacy after a 2-week period application, after one week second application, the *Lawsonia intermis* extract cleared all the remaining (10%) lesions in some of the rabbits.

There was no recurrence of infection in each of the groups 2-month post-treatment. The animals did not lose weight during period of treatment.

INTRODUCTION

Mange in domestic animals occur following infestation by *Demodex* spp *Sarcoptes* Scabiei, *Psoroptes* spp.

They cause chronic inflammation, loss of hair, itching dermatitis and death in some cases associated with secondary infection. Mange commonly occur during the cold or wet weather and the lesions could manifest in the trunk, face, inner surface of the thigh, under side of the neck and brisket, on the root of the tail, head and on the ears.

It is a notifiable disease. In Nigeria, it is on the 'class E' reportable disease (Abdulkadir, 1989). Research shows that mange is present in 70%-90% of herd. It increases stress, causes discomfort and irritability.

The treatment of mange involves the use of insecticides such as organophosphates, Diazenone, limesulphur dip, counnaphos, malidison and phoxin (Blood et al., (1983). Ivermectin and Doramectin are very effective in the treatment of drugs mange. However, professional skill is needed for application. They are also very expensive for the ordinary farmer. In a bid to look for an active and cheaper medica-

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onia intermis was applied
its based on its insecti-

METHODOLOGY

The 39 mange infested Rabbits were allotted into 3 groups of 13 animals per group, each group assigned to one drug. The drugs Ivermectin, Doramectin and water extract of *Lawsonia intermis*. Ivermectin and Doramectin were administered to groups one and two respectively at the dose rate of 1ml/50kg body weight subcutaneously. Water extract of *Lawsonia intermis* was applied topically to the lesions in group 3 at the concentration of 0.3g/ml.

RESULT

Rabbits in group 1 and 2 given Ivermectin and Doramectin respectively were completely (100%) cleared of the mange lesions while 90% clearance was achieved in group 3. However, there was 10% lesion clearance in group 3 after a second reapplication.

DISCUSSION AND CONCLUSION

Mange has been a serious problem in most rabbit stock. It is most often a recurring condition especially with Ivermectin and Doramectin preparations is expensive.

Lawsonia intermis commonly known as 'Lalle' in Hausa is widely grown as shrub in most parts of Nigeria. Since it has a comparable activity against mange infestation as Ivermectin and Doramectin, it could easily be used as substitute by local farmers to Ivermectin and Doramectin preparation. It is cheap, easy to apply and readily available.

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