

Photo 1 : *Aulacodes* dociles s'habituant vite à l'homme et n'étant même pas dérangés par le flash du photographe (cliché MENSAH).

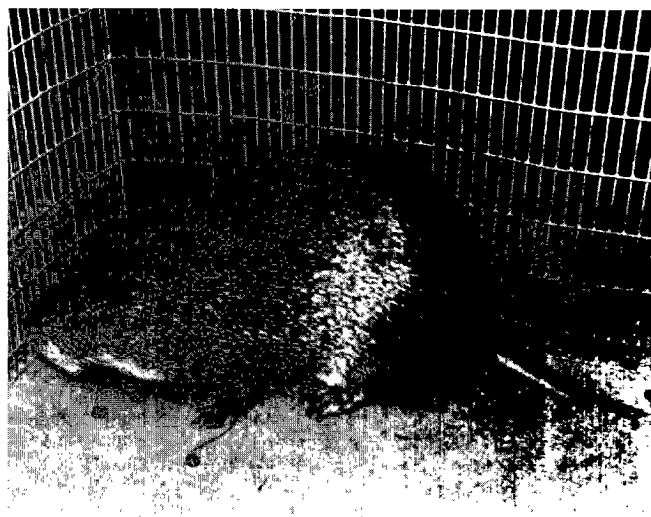


Photo 2 : La docilité reste un état durable qui dépasse la durée du traitement (cliché MENSAH).

Sous réserve d'une expérimentation à plus grande échelle pour confirmer ces premières observations, la méthode semble vulgarisable en milieu paysan, d'autant que le coût du traitement est à la portée des éleveurs.

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MENSAH (G.A.), STIER (C.H.), GALL (C.F.). Practical aspects of grass-cutter (*Thryonomys swinderianus*) breeding. IV. First studies on *per os* tranquilization of indocile grass-cutters. *Revue Élev. Méd. vét. Pays trop.*, 1992, **45** (1) : 37-39

Six indocile grass-cutters received acepromazine maleat in the drinking-water (0.75-1.75%) for 28 days. The animals were tranquilized from the first week onwards and stayed calm after stopping the treatment. It is feasible to administrate the tranquilizer via the drinking-water without subjecting the animals to parenteral injections which may generate stress and thus be detrimental to rearing. *Key words* : Grass-cutter - *Thryonomys swinderianus* - Breeding - Behaviour - Tranquilizer.

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## Ivomec<sup>R</sup>, a treatment against rabbit mange

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NFI (A.N.). Ivomec<sup>R</sup>, un traitement contre la gale chez le lapin. *Revue Élev. Méd. vét. Pays trop.*, 1992, **45** (1) : 39-41

La présente étude expérimentale, consistant à administrer de l'Ivomec<sup>R</sup> pour traiter la gale sarcoptique chez le lapin, a montré des résultats très prometteurs. En effet, 31 lapins ayant été traités ont guéris et n'ont pas été réinfectés. En outre, même s'il n'y avait pas de différence significative de gain de poids entre les groupes témoins et les groupes traités, l'efficacité de l'Ivomec<sup>R</sup> était visible à l'oeil nu. Le prurit cessait une semaine après le début du traitement, et les poils avaient entièrement repoussé au bout de six semaines. *Mots clés* : Lapin - Gale sarcoptique - Ivomec<sup>R</sup> - Acaricide.

#### Introduction

Sarcoptic mange is a chronic contagious dermatitis of rabbit and other animals characterised by powdery encrustations, denudation, alopecia and itching on nuzzle, eyelids, ears, paws and nosebridge. Sarcoptic mange

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## Communications

condition is the second most common parasitic disease in commercial rabbitries being second in importance only to coccidiosis (Anon., 1). Mange occurs even in well managed colonies of rabbits that are housed on wire floors. Mange has posed very difficult problems of rabbit management on the Mankon Research Station. Traditional and chemotherapeutic treatments have given little or no success. Treatments topically with a mixture of engine oil or palm oil and kerosine or supona have been effective but there were cases of reinfestation. Earlier studies by YAZWINSKI *et al* (10), BARTH *et al* (2), JAMES *et al* (6), GUILLOT *et al* (5) and LEE *et al* (7) have reported on the effectiveness of avermectin against endo- and ectoparasites in a range of animal species. This trial was planned to assess the efficacy of Ivomec<sup>R</sup> in the treatment of rabbit mange.

### Materials and Methods

Fifteen rabbits with mange at Mankon Animal Research Station were isolated in individual cages after noting their pretreatment weights. An injection of 0.1 ml/kg liveweight of 1 % Ivomec<sup>R</sup> (ivermectine MSD) was made subcutaneously behind the shoulder to each rabbit. Their post-treatment weight gains were monitored weekly for nine weeks.

The time when the lesions cleared off with total hair regrowth in alopecic areas was recorded for each treated rabbit. Another batch of 16 rabbits with mange were randomly divided into two groups and equalized for weight. One group was treated as described above while the other served as control. The post-treatment weight gains were monitored weekly during seven weeks. The rabbits were monitored for persistence or absence of pruritus, total lesion recovery and hair growth.

The rabbits were fed Guatemala grass and a maize-based concentrate mash. Post-mortem examination was carried out in all rabbits which died within the experimental period. The causative agent of mange was isolated and identified in the laboratory.

### Results

The results summarized in tables I and II demonstrate that Ivomec<sup>R</sup> is an extremely effective and potent treatment of sarcoptic mange in rabbits when administered at a single dose of 0.1 ml/kg body weight parenterally. Pruritus characteristic of mange ceased two weeks post-treatment. The powdery encrustations in affected areas started falling off two weeks post-therapy. The predilection sites of the mange mites as observed in this study are nuzzle, eyelids, ears, front paws and nosebridge. Treated rabbits considerably gained weight whereas the control group showed gradual weight loss and wasting away. The differences in weight gains between the two groups (table III) was not statistically significant ( $P > 0.05$ ). The cause of rabbit mange was isolated and identified as *Sarcoptes scabiei*.

**TABLE I** Effect of treatment of sarcoptic mange in rabbits with Ivomec<sup>R</sup>.

Days	No. of sick rabbits	No of cured rabbits	Percentage of cured rabbits (%)
0	31	0	0
7	31	0	0
14	28	3	9.7
21	26	5	16.5
28	21	10	32.5
35	15	16	51.6
42	10	21	67.7
49	2	29	93.6
63	0	31	100

**TABLE II** Evolution of mange lesions in treated and control groups.

Days	Nuzzle	Eyelids	Nosebridge	Paws	Ears	Observations
0	++++ <sup>1</sup> ++++ <sub>2</sub>	++	+++	++	+	S/C injection
7	++++ ++++	++	+++	++	+	Lesion spread
14	++++ ++++ +	++	+++	+	+	Lesions heal in treated
21	+++ ++++	+	++	+	+	While hair falls off +, pruritus in untreated group
28	++ ++++	±	+	+	+	Encrustations + weight loss
35	+ ++++	±	+	+	+	Lesions disappear in treated with hair growth but alopecia and encrustations fall off
42	+ ++++	-	±	-	-	
49	+ ++++	-	-	-	-	Severe emaciation in untreated; total hair regrowth and weight gain sets in treated group.
63	- ++++	-	-	-	-	

++++<sup>1</sup> : treated group  
++++<sub>2</sub> : untreated group

} evolution of lesions.

### Discussion

The results of this study suggest that Ivomec<sup>R</sup> given as a single dose at 0.1 ml/kg body weight is effective against rabbit mange. This finding confirms earlier work by MBUYA-MIMBANGA *et al.* (8) even though they used two doses of 0.02 ml/kg body weight to clear the infection.

TABLE III Weight gain in the treated and control groups.

Groups	Initial weight (kg)	Final weight (kg)
Treated	14.85	16.65
Control	14.75	12.75

The period between treatment and death of mange mites followed by total hair regrowth varies depending on the host, parasites and experimental environment. In the experiments of EUZEBY *et al.* (4) and POUPLARD *et al.* (9), encrustations disappeared with total hair regrowth three weeks thereafter. DAKKAK *et al.* (3) observed in goats that pruritus ceased 3-4 weeks after therapy, while 60-70 days was required for cutaneous lesions to heal with total hair regrowth.

In this trial with rabbits, pruritus ceased and encrustations in affected areas fall off 4 weeks post-treatment while total hair regrowth in alopecic areas took place after six weeks. This study also revealed that lesions of nuzzle, ears, eyelids and forelimbs heal faster because the rabbit scratches these areas easily facilitating lesions to clear off. These findings agree with earlier studies by MBU-NYA-MIMBANGA *et al.* (8).

During the experimental period, two rabbits (one from each group) died five weeks post-treatment due to impaction (enterotoxaemia). The rabbits tolerated the drug since there were neither localised lesions nor idiosyncrasy. While lesions in the treated group regressed, those in the control group became more and more aggressive with each passing week (table II). Although there was no significant difference ( $P > 0.05$ ) in weight gains between the two groups (table III), the efficacy of Ivomec<sup>R</sup> could visually be appreciated.

There was no reinfestation post-recovery in this study thus confirming earlier studies by MBUYA-MIMBANGA *et al.* (8) ; EUZEBY *et al.* (4) and GUILLOT *et al.* (5). The

price notwithstanding, Ivomec<sup>R</sup> is highly recommended for the treatment of sarcoptic mange in rabbits because of its efficacy, the ease of handling and administration as well as its long residual effect and large spectrum of action. It is worth emphasizing that treatment of rabbit sarcoptic mange must be accompanied by a strict hygiene based on constant cleaning and disinfection of hutches and cages.

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The trial with Ivomec<sup>R</sup> as a treatment against sarcoptic mange in rabbits gave very encouraging results. There was 100 % clinical recovery in 31 rabbits that were treated with no cases of reinfestation. Even though there was no significant difference ( $P > 0.05$ ) in weight gain between the treated and untreated groups, the efficacy of Ivomec<sup>R</sup> was visually appreciated. Pruritus ceased one week post-treatment while total hair regrowth occurred after 6 weeks. *key words* : Rabbit - Sarcoptic mange - Ivomec<sup>R</sup> - Acaricide.

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