

Accepted Manuscript

Title: Field study on the use of vaccination to control the occurrence of lumpy skin disease in Ethiopian cattle

Authors: Wassie Molla, Klaas Frankena, Getachew Gari, Mart C.M. de Jong



PII: S0167-5877(17)30160-5
DOI: <http://dx.doi.org/10.1016/j.prevetmed.2017.08.019>
Reference: PREVET 4313

To appear in: *PREVET*

Received date: 21-2-2017
Revised date: 22-8-2017
Accepted date: 22-8-2017

Please cite this article as: Molla, Wassie, Frankena, Klaas, Gari, Getachew, de Jong, Mart C.M., Field study on the use of vaccination to control the occurrence of lumpy skin disease in Ethiopian cattle. *Preventive Veterinary Medicine* <http://dx.doi.org/10.1016/j.prevetmed.2017.08.019>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Field study on the use of vaccination to control the occurrence of lumpy skin disease in Ethiopian cattle

Wassie Molla^{a,b,1}, Klaas Frankena^a, Getachew Gari^c, Mart C.M. de Jong^a

^aQuantitative Veterinary Epidemiology, Wageningen University & Research, Droevendaalsesteeg 1, 6708 PB Wageningen, The Netherlands

^bFaculty of Veterinary Medicine, University of Gondar, P.O. Box 196, Gondar, Ethiopia

^cNational Animal Health Diagnostic and Investigation Centre (NAHDIC), Sebeta, Ethiopia

¹Corresponding author: Tel: +31613169516

E-mail address: wassie.abebe@wur.nl / mollowassie@yahoo.com

Highlights

- KS1 O-180 vaccine reduces severity of LSD virus infections.
- KS1 O-180 vaccine reduces susceptibility to LSD virus but increases infectivity of vaccinated infected cattle.
- The estimated LSD reproduction ratio is above 1 in vaccinated and unvaccinated cattle populations.
- Vaccination with KS1 O-180 shows no adverse effects.

Abstract

The current study was carried out in central and North-western parts of Ethiopia to assess the efficacy of Kenyan sheep pox virus strain vaccine (KS1 O-180) against natural lumpy skin disease (LSD) infection under field conditions by estimating its effect on the transmission and severity of the disease. For this study, an LSD outbreak was defined as the occurrence of at least one LSD case in a specified geographical area. An observational study was conducted on a total of 2053 (1304 vaccinated and 749 unvaccinated) cattle in 339 infected herds located in 10 sub-kebeles and a questionnaire survey was administered to 224 herd owners. Over 60% of the herd owners reported that the vaccine has a low to very low effect in protecting animals against clinical LSD; almost all of them indicated that the vaccine did not induce any adverse reactions.

Download English Version:

<https://daneshyari.com/en/article/8503646>

Download Persian Version:

<https://daneshyari.com/article/8503646>

[Daneshyari.com](https://daneshyari.com)