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STUDIES ON THE KEEPING QUALITY OF LOCAL PRODUCED LIVING ATTENUATED VACCINE OF RIFT VALLEY FEVER (SMITHBURN STRAIN)

A Chesis presented by

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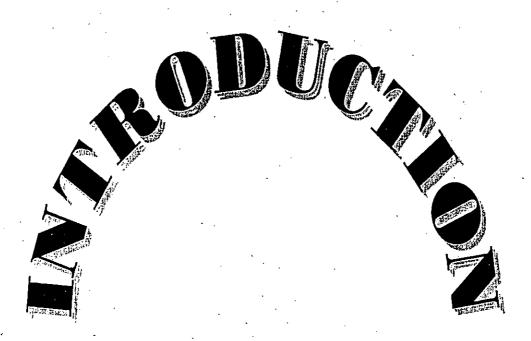
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1.0. INTRODUCTION

Rift Valley Fever (RVF) is an arthropod born viral disease primarily affecting domestic animals with occasional involvement of man (Easterday, 1965 and Doubney et al., 1931). The disease causes high rates of abortion and neonatal mortality in sheep, cattle and other species are susceptible to much lesser extent with much economic losses. RVF disease caused by a Bunyavirus of genus phlebovirus (Connie, 1996) with short incubation period and runs a rapid course (OIE, 1989). RVF disease was first diagnosed in Kenya at Rift Valley area in 1931 (Doubney et al., 1931). Later on the disease spread to other countries in African continent where reach to Sudan in 1973 (WHO, 1978).

In 1977 - 1978, an epidemic of RVF infection in animals and human were recorded in Egypt. During this epizootic, it recorded that about 18000 persons suffered from RVF disease, and 598 died (WHO, 1978; Imam et al., 1978) with about 82 million Egyptian pounds economic losses (General Veterinary Services, 1994).

The reoccurrence of RVF was recorded in animals as well as human being in Aswan Governorate in May (1993) (*El-Gabery et al.*, 1994) with heavy abortion in ewes and mortalities of lambs in addition to ocular form in human being were recorded.



Disease was controlled in animals by using the inactivated RVF vaccine (Abdel Ghaffar et al., 1981; El-Nimr et al., 1981 and Marcoss, 1992). However, these vaccines were expensive and of short period of protection. Smithburn (1949) succeeded to produce on attenuated RVF vaccine which can protect the non pregnant animal for a period of several years and less expensive. The reoccurrence of RVF disease in Egypt in mild form infection in 1993 encouraged the general organization for vet services to import and use the live attenuated vaccine to protect farm animal during 1993 - 1994. Then we succeeded to produce local attenuated RVF vaccine (Ibrahim, 1996).

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Since the virus is living vaccine, so it is easily effected with the different environmental factor as different temperature and different diluent. Therefore, the aim of this work is to study the keeping quality of this vaccine to be used safely and effectively without any loss or detleurance effect in the field.



