### بسم الله الم حمن الم حيم

### **Sudan University of Science and Technology College of Graduate Studies**

# Studies on colibacillus diarrhoea in dairy calves in Khartoum state, Sudan

و اسات في اسهال العصو يات الموية في عمول الالبان و لاية الخوط م

A thesis Submitted in Fulfillment of the Requirement for Ph. D. Degree in Veterinary Medicine (Microbiology)

By

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### بسم الله الرحمن الرحيم

### قال تعالى:

انعاما فهم لها مالكون (71) وذللناها لهم فمنها ركوبهم ومنها ياكلون (72) ولهم فيها منافع ومشارب افلا يشكرون (73) و و الهم فيها منافع

صدق الله العظيم سورة يس الجزء (23)

#### **PREFACE**

This work has been carried out at the Department of Bacteriology, of Veterinary Research Institute (Suba), under the supervision of Professor, Galal Eldin Elazhari Mohamed and co-supervision of Dr. Ali Abdel Ghani Elgaddal.