

DEDICATION

To my teachers in all fields throughout my life

With great

Appreciation

I dedicate this work

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my supervisor, Professor Abdelhamid Ahmed Mohammed Elfadil for his intensive advises, encouragement and continuous support during this study which might have not been completed without his supervision. I am also indebted to Professor Mohammed Tajeldeen for his continuous follow up during this work and his assistance in the statistical analysis. I would like to great and thank my friends D. Abdullah M (University of Bahri) and Mr. Mohammed B (University of Khartoum) for their continues help. I would to thank those helpful men in Northern state, Dr. Mohmmmed Alferigaby, the director general of the animal resources in the Northern state. Salah A., Yasir M., Kefah H. and Saifeldeen H. (Dongola locality). Abdaltief R. (Albourgiag locality), Abdeldiam M., Mousa B., Hemad J. and Omer A. (Algolid locality), Iberahim A., Abdelgadir S. and Mohmmmed A. (Aldbba locality). Special thanks and appreciation to my wife and children who accompanied me through good and bad times. The deeper and more thanks go to my family and all friends for their patience and help. I would also like to express my sincere gratitude to my teachers and colleagues in Sudan University of Science and Technology.

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ABSTRACT

A cross-sectional study was carried out from March 2012 - September 2012 to estimate the prevalence and assess contribution of major risk factors for the occurrence of bovine mastitis in small holder dairy cows in Northern state, Sudan. Out of 400 lactating cows (172 local and 228 cross) in 121 smallholder dairy farms were investigated, the prevalence of clinical and sub-clinical mastitis at cow level was 10.5% and 72% respectively. Risk factors such as previous exposure to mastitis ($\chi^2 = 158.9$, $P = 0.00$), type of quarter ($\chi^2 = 3.678$, $P = 0.055$), sharing of milkman between farms ($\chi^2 = 3.518$, $P = 0.061$) and yielding milk ($\chi^2 = 3.769$, $P = 0.052$) showed statistically significant association with mastitis. However, risk factors such as age, health score, injuries in udder, presence of ticks of udder, herd size, washing of udder and teats and stage of lactation did not show statistically significant association with the occurrence of mastitis. In the multivariate analysis, previous exposure to mastitis ($\text{Exp (B)} = 5.929$, $P = 0.00$) and sanitary practice ($\text{Exp (B)} = 5.979$, $P = 0.033$) were found to be the most statistically significant risk factors.

ملخص

تم اجرا هذة الدراسة فى الفترة من شهر مارس الى شهر سبتمبر 2012م لتحديد معدل الاصابة ومعرفة العوامل المؤثرة لظهور التهاب الضرع فى مزارع الابقار الصغيرة بالولاية الشمالية. نتيجة التقصى لعدد 400 بقرة حلوب (172 سلالة محلية و 228 سلالة هجين) داخل 121مزرعة صغيرة كان معدل الاصابة لالتهاب الضرع السريرى و التهاب الضرع تحت السريرى هو 10.5% و 72% على التوالى. العوامل المؤثرة مثل التعرض مسبقا للالتهاب)