#### **Dedication**

Peace and prayers to great prophet Mohammed

I dedicate this research to,

My mother,

My father,

And all my family and friends

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### ملخص الدراسة

أجريت هذه الدراسة للتعرف على بعض الاسباب التى أدت الى عدم قدرة مزارع الالبان الصغيرة بولاية الخرطوم على الايفاء بحاجة سكان الولاية من الحليب. تم أختيار منطقتين عشوائيا فى مدينة الخرطوم بحرى (بحرى وشرق النيل) لاجراء الدراسة. وزعت أربعون ورقة أستبانة للحصول على المعلومات من ملاك المزارع بمنطقة الخرطوم بحرى- ولاية الخرطوم.

خلصت الدراسة الى أن هنالك مجموعة من العوامل ساهمت فى تقليل قدرة المزارع الصغيرة على المساهمة الفعالة فى مد سكان الولاية بحاجاتهم من الحليب. من أهم هذه العوامل قلة المعرفة بالممارسات الغذائية حيث وجد أن هنالك تباين كبير بين كميات المركزات المقدمة للابقار تتراوح ما بين 3.5- 26.4 كج/بقرة/يوم.، فقط 2.5% يقدمون أمباز القطن و 5.0% يقدمون المولاس بسبب عدم توفرهما فى السوق، أضافة الى ذلك 95.0% يغذون أبقارهم على على أبو سبعين و 45.5% على البرسيم و 27.5% على البايونير حتى الاشباع. أيضا أنتشار مرضى أبو لسان (72.5%) وألتهاب الضرع (65.0%) من أهم الأسباب الـتى

تساهم فى تقليل أنتاج الحليب، بينما %85.0 من المزارع لا تستعين بطبيب بيطرى. أيضا 25.0% من المزارعين لا ييجففون أبقارهم فى الوقت المناسب. غياب التكنولوجيا والتصنيع من العوامل التى ساهمت فى تقليل إنتاج الحليب مثل عدم وجود معاملات للحليب عدا تصفية الحليب (97.5%) كما أن كل المزارع (100%) تستخدم الحليب اليدوى، أضف الى ذلك أن 65.0% و 62.5 مىن المزارعين لا يعلمون أيهما أفضل الحلب اليدوى أم الالى من الناحيتين الانتاجية والصحية على التوالى. واخيرا وجد ان نصف الملاك أو المشرفين (50.0%) على المزارع بالولاية قد تعلموا الى المرحلة الابتدائية فقط مما يعنى قلة معرفتهم وعدم قدرتهم على استيعاب الممارسات الادارية والعلمية الـتي تـؤدي لترقية انتاج القطيع.

أوصت هذه الدراسة بأن يكون هنالك دليل واضح يفصل البرامج الغذائية اللازمة و الممارسات الادارية اللازمة للقطيع التي من شأنها رفع وتنظيم إنتاج الحليب بالولاية. كما يجب توفير الارشاد اللازم للملاك لتحسين مستوى ادارة القطيع. أيضا أقترحت هذه الدراسة ضرورة أدخال التكنولوجيا اللازمة لمزارع الالبان بما يساهم في تأهيلها وتطويرها وتمكينها من المساهمة بصورة أكبر في توفير كميات أكثر من الالبان التي تطابق المواصفات الصحية.

#### **ABSTRACT**

This study was carried out to investigate the reasons behind the inability of small dairy farms to produce adequate milk to meet the needs of the growing population of Khartoum State. Two areas in Bahry town were randomly selected (Bahry and Eastern Nile Localities). Forty owners were interviewed through a structured questionnaire to obtain information on a sample of forty dairy farms around Khartoum North City, Khartoum State.

The results obtained showed that many factors were blamed for the meager contribution to milk supply in Khartoum State by these dairy farms. A major factor of these was lack of knowledge on feeding practices. Large variations exist between farmers regarding the amount of concentrates fed. The minimum offered was 3.5 kg/cow/day and the maximum was 26.4 kg/cow/day. Only 2.5% of the farmers feed cottonseed cake and 5.0% feed molasses. This is because these feeds are unavailable in the market. Furthermore, 95.0% of farmers feed Abosabien, 45.5% feed Berseem and 27.5% feed Pioneer ad libitum. Also spread of diseases especially foot and mouth disease (72.5%) and mastitis (65.0%) is another factor restricting milk production. Despite the importance of diseases about 85.0% of farmers do not have veterinaries on their farms. Poor management is also reflected in the finding that 25.0% of farmers do not dry out their cows at the appropriate time. Absence of milk processing in dairy farms also contributed to the poor performance of dairy farms in Khartoum State. The only treatment applied to milk is filtration which was done by 97.5% of the farmers. No pasteurization or sterilization was practiced. Also no cheese or yogurt was made. Hand milking was practiced by all of farmers. Furthermore 65.0% and 62.5% of farmers do not know whether machine milking is better than hand milking or not with respect to its effect on milk production and milk hygiene. Half (50.0%) of owners or managers of dairy farms

are educated only at primary school level and this might have contributed to their limited ability learn and adopt the basic scientific knowledge for management the milking cows.

The study suggests that these farms should be availed with a manual showing good feeding and a management practices and these should be transferred through an effective extension service. Lastly use of new technology for dairy farms should be encouraged.