

Mekele Research On The Serious Reproductive Health Issues Of Dairy Cattle

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Abstract:

On the other hand, service and breed have a significant impact (P 0.05) on the reproductive issues in dairy cows. Age, parity, breed, and type of service were found to be potential risk factors linked to the development of reproductive health issues. The reproductive efficiency of small-scale dairy cows could be increased with the help of management system improvements (such as housing, feeding, and health care), heat detection, and correct bull selection for breeding. First and foremost, I would like to thank the Almighty God for being there in my life.

My advisors, Drs. Berhane, M., Aboma, R., Biranu, and Guesh, deserve a great deal of credit for their intellectual direction, material contributions, and remarks. Constructive criticism, unreserved experience sharing, and dedication of their time to improving this thesis. Additionally, I want to thank my cherished family for their unwavering support and encouragement throughout the day. Last but not least, I would like to express my sincere gratitude to Dr. Yohannes H. and Dr. Selamawit, Takelegn T., and my friends Tamirat Y, Fisseha K, Tamirat Z, Mateyos, Hirphasa, Qabata, and others who helped me by lending me their thoughts and resources. Breed, dairy cows, artificial insemination, reproductive disorders Study on the Major Reproductive Health Issues of Dairy Cattle at Mekele University Ethiopia by Motuma Regassa1, Berhanu Bula Kacho21. Ethiopia's Finfinne Livestock and Fishery Resource Development Office is located in the Oromia Special Zone.

Introduction:

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Qabata. Ethiopia is home to the largest population of livestock on the African continent, with an estimated 30-33 million cattle (Alemayehu, 2003; FAO-STAT, 2003), 24 million. Each species' distribution and abundance varies depending on the types of prevalent animal production systems and agro-ecological zones (Alemayehu, 2003).

The agricultural climate of the nation is ideal for raising cattle, which is a source of protein, fuel, and animal goods in general (Yohannes, 2007). Despite the abundance of animal resources, it is discovered that livestock production is quite low. Genetic potential and performance, poor nutrition (both qualitatively and quantitatively), conventional animal husbandry practices, and the prevalence of various diseases are the main biological and socioeconomic factors contributing to low productivity. Poor reproductive performance, which is a sign of reproductive issues, caused small-holder dairy farms and the dairy industry to suffer significant financial losses.

Due to the slower uterine involution, decreased reproductive rate, prolonged inter-conception period and calving interval, high cost of medication, decrease in milk production, reduced calf crop, and early depreciation of potentially useful cows, these have been implicated in causing a significant economic loss to the dairy industry (Alberrom, 1983; Mekonnen, 2000). The three most crucial actions that must be taken to increase production are evaluating reproductive issues, assessing dairy herd fertility, and identifying reproductive health issues (Roberts, 1986). For effective herd management, it is practicable and crucial to implement management techniques including nutrition, sanitation, and hygiene, breeding, and reproductive health issues for dairy herds. As a consultant and counsellor to the herd management or owner, veterinarians play a crucial role in developing reproductive health issues and ensuring the effectiveness of reproductive methods.

Retained foetal membrane and the ensuing endometritis have been reported to be the most prevalent clinical and financial issues among the significant issues that have a direct impact on dairy cow reproductive performance (Murasa-Mugerula et al., 1991) aided me by exchanging supplies and thoughts. Breed, dairy cows, artificial insemination, reproductive disorders Study on the Major Reproductive Health Issues of Dairy Cattle at Mekele University Ethiopia by Motuma Regassa1, Berhanu Bula Kacho21. Ethiopia's Finfinne Livestock and Fishery Resource Development Office is located in the Oromia Special Zone.

The reproductive system is the result of the interplay of the central nervous system, hypothalamus, pituitary gland, gonads, and their target organs. This system produces living creatures through estrus, ovulation, gestation, and parturition. When there is no reproductive abnormality, this process is successful. The main issues that directly affect a dairy cow's ability to reproduce are divided into three categories: those that occur before, during, and after gestation. These include anestrous and

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repeat breeder infertility, abortions, vaginal prolapse, and dystocia (retain placenta, endometritis and uterine prolapse). Failure to have children is infertility's most extreme form. A lower-than-average number of offspring in a polyestrous animal also indicates sterility. Failure to conceive, abnormalities in the estrus cycle and period, failure to ovulate, and prenatal and prenatal death are all possible causes of female infertility (Susan, 1998).

Anestrus, which is a symptom of infertility, is a state of complete sexual inactivity with no manifestation of estrus for more than two months. Anestrus is not a disease, but rather a symptom of a number of conditions, including the time before puberty, the time of pregnancy, incomplete uterine involution, and infertility. The repeat breeding cows are those that have an estrus cycle and estrus period that are normal or almost normal and have been bred two or more times to fertile bulls (semen) without becoming pregnant. In the study of reproductive physiology, we have separated the causes of repetitive breeding into two categories: (1) infertility; and (2) early embryonic death (Noakes, 1986). Some prefer a more thorough classification based on the pathological and managerial factors that contribute to repeat breeding, such as the following: (1) congenital or genetic anatomical defects of the genital tract; (2) congenital, genetic, and acquired defects of the ova, spermatozoa, or early zygote; (3) infectious or traumatic inflammatory processes; (4) endocrine dysfunctions; and (5) management and nutritional deficiencies (Zemjanis, 1980). (Roberts, 1986). Non-infection-related causes of abortion include chemicals, medication poisoning, hormones, nutritional disorders, trauma, and genetics, some of which may not have phenotypically discernible effects. Infections produced by bacteria, viruses, fungi, and protozoa can also result in abortion (Robert, 2002).

Materials and Methods:

Study Location : The Mekelle veterinary clinic served as the study location from November 2010 to April 2011. Mekelle, the capital of the Tigray Regional State, is 783 kilometres away from Addis Abeba. Its altitude ranges from 200 to 2200 metres above sea level, and its climate is temperate. Mekelle city can be found at 390 38' East and 130' North on a map. The city's average annual precipitation and mean temperature are 250mm and 190c, respectively. The agro-ecological zone at mid-altitude includes the research area. Smallholder farmers that integrate crop and animal production to optimise profit from their limited land and capital resources and reduce environmental impact are the predominant kind of farmers in the study area.

production danger The farm animals give the crops manure and draught power. Manure from dried animals is frequently used as a source of energy for households. Livestock are fed with crop wastes. Meat and milk products from livestock are significant sources of sustenance for the household. Crop, animal, and animal product sales revenue is used to buy farm inputs and pay for expenses like schooling, clothing, and veterinary care. Therefore, livestock functions as a capital asset by providing a ready source of income and a way to save money.

Study Animals :

The study includes a variety of dairy cow herds kept on semi-intensive, intensive, and extensive farms. At the Mekelle veterinary clinic, researchers looked at reproductive problems like abortion, retain foetal membrane, recurrent breeding, dystocia, anestrus, metritis, uterine prolapsed, and vaginal prolapse.

Study Design and Methodology : From December 2010 to April 2011, a study was conducted to evaluate the overall prevalence of reproductive diseases. The study was conducted via a questionnaire survey, data collection from clinic case books, and physical inspection of cows' reproductive tracts.

Conclusion:

Reproductive inefficiency is one of the most expensive issues the dairy industry is currently dealing with. Reproductive abnormalities commonly afflict nursing dairy cows and can have a significant negative impact on reproductive efficiency in a dairy herd. The purpose of the current study was to identify any potential risk factors that could contribute to the occurrence of reproductive health issues in dairy cows.

Age parity breed and service kind were difficulties that were noted. The current study found that, in addition to metritis, anestrus and recurrent breeding retained foetal membrane abortion were the two main reproductive problems in Mekelle dairy cows. More reports of dystocia were found in small local breeds that were artificially inseminated than in those that were mated naturally. Service improvements in management systems (such as housing, feeding, and health care), heat detection, and proper selection of bulls for breeding while taking the size of cows into account could help in minimising reproductive health issues and thereby improve the reproductive system. Considering the conclusion, We forward The suggestions listed below:

- To lower the likelihood of dystocia, artificial inseminators should take the size of the cow into account during insemination.
- Veterinarians ought to make an effort to educate pet owners about heat detection, management, the occurrence of silent estrus, and repeat breeders.
- It's crucial to provide semen of the right quality and quantity, and veterinary clinics should be well-equipped to make an accurate diagnosis of reproductive abnormalities
- The prevalence of abortion and endometritis in local breeds in wild populations may be related to venereal disease; therefore, awareness should be raised among owners to discourage the use of the same bull in several cow herds and to promote artificial insemination (AI).

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