

## ABSTRACT

**Hildebrandt, W.R. (2014). Management and reproduction of the African savanna buffalo (*Syncerus caffer caffer*). Master of Sciences in Animal Science, University of Stellenbosch.**

The aim of this study was to evaluate the current managerial practices as used by African Savanna buffalo (*Syncerus caffer caffer*) farmers. Consequently, the best management practices would be combined to formulate a basic management plan to farm captive buffalo. The distribution of buffalo throughout South Africa was also investigated and each province was considered separately for different types of buffalo (Kruger also known as project; Addo and other) and different disease statuses (Foot and Mouth; TB; Corridor disease and disease-free or clean). The basic infrastructure of all farms studied was noted and evaluated to attain the most effective structures and layouts needed for basic captive buffalo farming. The reproductive capabilities of buffalo were assessed on different farms. These farms were divided into winter and summer rainfall areas to ascertain whether season or rainfall would have an effect on calving season. Additionally, the reproduction data was analysed to set a benchmark for the reproductive performance of buffalo in herds as well as individually. This assisted in selection in captive breeding of buffalo. Buffalo are currently distributed throughout South Africa and occur in all nine provinces, with the highest quantity found in Limpopo with 1300 registered buffalo farms. Provinces that contain only disease-free buffalo include Western Cape, Eastern Cape, Free State, North-West and Gauteng. Corridor infected buffalo are found in the Northern Cape, Mpumalanga and KwaZulu Natal. Foot and Mouth disease is found in Limpopo and Mpumalanga and TB infected buffalo are found in Mpumalanga and KwaZulu Natal. Factors to consider when managing captive buffalo herds are the herd dynamics and composition, feeding and nutrition and lastly parasite control. Management should be approached adaptively as different areas present different challenges. Infrastructure is divided into the farm and biomes thereof, feeding and parasite treatment. As with herd management these should be approached adaptively as the composition of each farm differs. Reproductive maturity of buffalo is reached between the ages of two and six years. Average intercalving period of captive buffalo was to be 443 days with optimal intercalving being below 400 days. Seasonal calving differences between summer and winter rainfall areas were found with calving peaks differing by two months between these areas.