INTRODUCTION

The De Wildt Cheetah Breeding Centre was started by Ann Van Dyk and her brother, Godfrey, in partnership with the National Zoological Gardens of South Africa in 1971. The objective was to breed cheetahs in large enough numbers to meet the requirements of zoological gardens for display animals and by so doing relieve the pressure on the wild populations from which animals were captured and sold. It also was hoped that, if the breeding of cheetahs was sufficiently successful, animals could be released into suitable conservation areas.

The cheetah was regarded as very difficult to breed in captivity (Hediger 1950, in Manton, 1970). Concern for the survival of the species was growing. Cheetahs were classified as endangered after it was reported that the population in the wild had decreased and appeared to be decreasing further (Myers, 1975, in Wrogemann, 1975).

The present study was undertaken with the aim of promoting the breeding of cheetahs at the De Wildt Centre. The population of cheetahs being kept at the time consisted of 29 animals (20:9). First the management of the population was investigated and changed with the view to stimulate breeding activity. Then the fertility of male cheetahs was examined with the objective of establishing a rational method of selecting males for the breeding program. After it was found that a large proportion of the males being kept at the Centre appeared to have poor semen quality the study was extended to include an investigation into aspects of reproductive endocrinology in the male cheetah. The

objective being to gain an understanding of possible factors in captivity that might influence male fertility through effects on testicular function.

STUDY AREA

The study was carried out at the De Wildt Cheetah Research Centre which is situated some 20 km west of Pretoria in the foothills of the Magaliesberg (25°40'S 27°52'E). For details of rainfall, climate and veld type vide Degenaar (1977).

MATERIAL & METHODS

Management

Cheetahs are fed on 6 days of the week and fast on Sundays. Each receives about 2 kg of meat per day to which a vitamin and mineral mixture is added. Beef or mutton supplied by the National Zoological Gardens and poultry from the neighbouring poultry farm are the staple diets. All meat is inspected prior to feeding and excess fat removed.

Cheetahs born on the farm are vaccinated at 3 months of age with a combined attenuated live vaccine against feline panleucopenia infectious rhinotracheitis and calici virus (Felocell CVR, Norden Labs., Lincoln). Adult cheetahs are vaccinated once a year with the same vaccine.