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Study on Sexual Behaviour and Seminal Quality Characteristics of Kundhi Buffalo Bulls

¹M.U. Samo, ²N.A. Brohi, ¹I. Kaka, ¹T.A. Qureshi and ¹M.M. Memon

¹Department of Animal Reproduction, Sindh Agriculture University Tandojam, Pakistan

²Department of Animal Husbandry, Government of Sindh, Pakistan

Abstract: The study was conducted to collect the basic information on sexual behaviour and semen quality characteristics of Kundhi buffalo bulls. The libido of Kundhi buffalo bull was found to be good with no marked variation in sexual performance. The semen quality in terms of volume, colour, mass activity, motility %, pH and sperm concentration was also found good.

Key words: Kundhi buffalo bull, sexual behaviour, semen

INTRODUCTION

Kundhi buffalo is a main dairy animal of the province of Sindh. Traditionally, Kundhi buffalo bulls are run with a group of females without knowing their reproductive and productive efficiency. The breeding bull either through natural or Artificial insemination (AI) represents half of the genetic composition of its progeny^[1]. On account of the extensive use of outstanding sires, a careful study of breeding bull has become very important. The knowledge of reproductive behaviour and semen quality are valuable tools to estimate the reproductive efficiency of a bull. A lot of research has been done on sexual performance and semen picture of various breeds of buffalo^[2-8] in different parts of the world. As far as semen picture and reproductive behaviour of Kundhi buffalo are concerned, no such information is available in the literature. The study was therefore undertaken to record the sexual behavior parameters and semen quality characteristics in Kundhi buffalo bulls.

MATERIALS AND METHODS

The study was conducted to collect the basic information on sexual behaviour (5) and semen characteristics of six Kundhi buffalo bulls maintained at the Department of Animal Reproduction, Sindh Agriculture University Tandojam. The semen samples were collected by Artificial Vagina (AV) method and were subjected to record the volume, colour, mass activity, motility percentage, pH and sperm concentration for the period of three months.

RESULTS AND DISCUSSION

Homosexuality, staring eyes, intermittent urination, tucking-up of preputial sheath, snorting, vocalization and circling around the attendant were the most common characteristics found during the pre-copulatory period. During approach towards the teasers, 21.38% bulls were found aggressive, 51.72% were active and 26.95 % were dull. After approaching the teaser, tactile stimulations, like sniffing (38.19%), smelling (17.36%), licking (36.11), nuzzling (40.97%), bunting (8.33%), flehmen posture (43.5%) and chin resting (37.5%) were recorded. None of the Kundhi buffalo bulls was shy as reported for some of the Nili Ravi bulls^[5]. Following mounting, the copulatory patterns included shifting of weight on hind legs and erection of penis of various degrees.

On 72.22 occasions the erection was complete, whereas it was partial on 24.31% and absent on 3.4% occasions. The copulatory act consisted of fixing of fore-legs on teasers pelvis (84.72%) or on flank (19.28%), the soles of the hind feet resting on the ground and back line over lumber region was straight (70.83%) or slightly concave (29.17%). Bulls were swinging their heads in the air (85.32%) or resting their heads on the back of the teaser (14.68%). The penile movement to locate artificial vagina, intromission and strong ejaculatory thirst were observed in all the cases. Reaction time ranged from 6 to 20 sec and ejaculation time from 2 to 15 sec which is extremely lower than the time reported in Murrah buffalo bulls^[6]. The dismounting time was from 5 to 15 sec. Dribbling of pre-ejaculation fluid was observed in all the Kundhi buffalo bulls.

Table 1: Mean values of semen characteristics of Kundhi buffalo bulls

Characters	1	2	3	4	5	6	overall
Mass activity	++	++	++	++	++	++	++
Motility (%)	70.00	65.42	7.08	65.62	67.71	70.00	67.64
pH	6.66	6.31	6.99	6.91	7.05	6.50	6.73
Volume (mL)	3.92	3.33	3.33	3.54	4.16	3.33	3.60
Concentration (Million mm ⁻³)	122.06	140.79	126.05	117.92	130.83	119.37	126.17

++ = Good

Milky white colour was most dominant colour noted throughout study period in most of the bulls. The other semen colours, such as creamy white, white and some time yellow were also found in Kundhi buffalo bulls. The mean mass activity of sperms was ++ in all the bulls. The over all mean of sperm motility was found to be 67.64%, whereas, sperm concentration was 126.17 million mm⁻³. volume of semen ranged between 2.00 mL and 6.00 mL with mean value of 3.60 mL (Table 1). These results fall in the range of Murrah buffalo bulls^[1].

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