

**INTERSPECIES DIFFERENCES ON OVARIAN MORPHOLOGY
BETWEEN BLACK BENGAL GOAT AND INDIGENOUS
BENGAL SHEEP IN VIEW OF *in vitro* PRODUCTION**

Falguni Dadok*

Executive Summary

Black Bengal goat and Indigenous Bengal sheep are the most important small ruminants in Bangladesh. Ovary plays an important role in the reproductive biology and biotechnology of female animals. To characterize the ovarian parameters and to study interspecies variation this research was conducted. Ovaries of goat and sheep were collected from local slaughterhouses of Dhaka city and categorized as left/right and CL-present/absent. It was observed that left and right ovaries were equally active to normal physiological and/or ovarian activity, as the parameters of both ovaries in both species were similar ($P>0.05$). The weight, length, width and height of CL absent ovaries were significantly lower ($P<0.05$) but the number of non-atretic follicles, number of normal and total cumulus oocyte complexes (COCs) were significantly higher ($P<0.05$) than CL present type in both species. The results of interspecies comparison showed that all the ovarian parameters in sheep were significantly higher ($P<0.05$) than those of goat. These results will be helpful to manipulate ovarian functions, reproductive biology and biotechnology such as *in vitro* maturation (IVM), *in vitro* fertilization (IVF) and *in vitro* embryo production (IVP) in small ruminants.

*Assistant Professor, Dept. of Animal Production and Management, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh