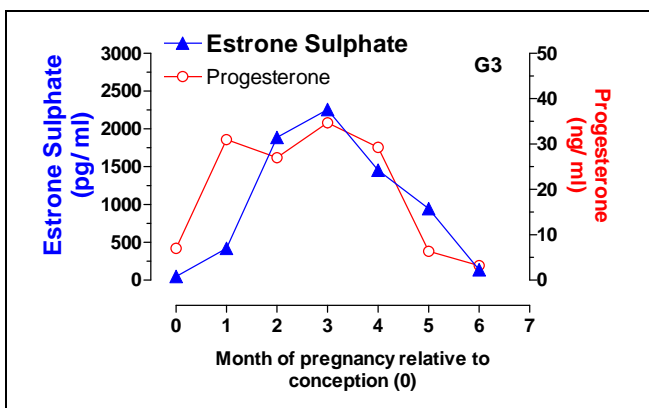
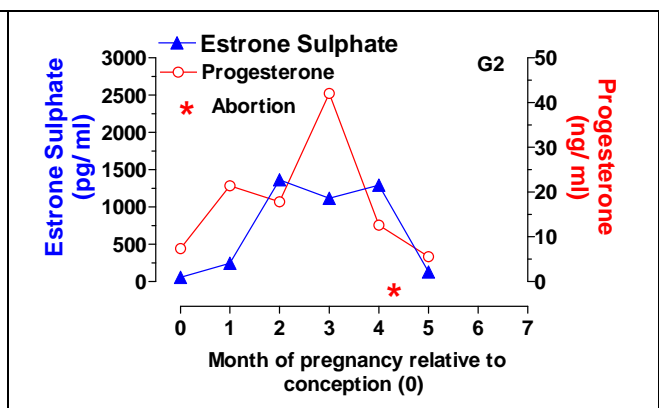


## Estrone sulphate concentrations is a reliable bio-chemical marker for pregnancy diagnosis in goat

The concentration of estrone sulphate in monthly blood plasma sample during pregnancy period from pregnant Black Bengal goats of Goat Farm of ICAR Research Complex, Tripura Centre, Lembucherra was measured by enzyme immunoassay using ELISA kit procured from M/s. Endocrine Technologies, Inc. USA. In pregnant Black Bengal goats, plasma estrone sulphate concentration started to increase to a level between 250- 1000 pg/ ml and the concentration at around 2 months and onward reached at the level of 1500- 2000 pg/ ml which remained at that level upto 5<sup>th</sup> month of pregnancy and then declined to the basal level (Fig. 6). Estrone sulphate was an indicator of endocrine activity of the fetoplacental unit which secreted significant amounts of progesterone (in addition to functional corpora lutea) for the maintenance of pregnancy. In the incidence of abortion, there was a sharp fall of estrone sulphate concentration in plasma (Fig. 7). The rapid decline of estrone sulphate concentration in plasma of goats aborted clearly indicated that the endocrine fetoplacental function was disturbed. The results of this investigation indicated that the determination of estrone sulphate in blood plasma of goats might be used as a bio-chemical marker for pregnancy diagnosis in goats.



**Fig.6 Plasma estrone sulphate and progesterone profiles in goats delivered twin kids**



**Fig.7 Plasma estrone sulphate and progesterone profiles in goats aborted twin fetuses**