RAJ-SHEETAL: COUNTRY'S 1ST HORSE FOAL BORN FROM CRYOPRESERVED EMBRYO

Raj-Sheetal: country's 1st horse foal born from cryopreserved embryo

21st September 2024, Bikaner

The equine population is declining at a faster pace in India. The 19th and 20th livestock census (2012-2019) data revealed that the country's population of equines has decreased by 52.71% during this tenure. Hence, immediate measures need to be adopted for the conservation of our indigenous equine population. In this endeavor, the ICAR-National Research Centre on Equines, Hisar, is continuously working relentlessly to conserve the country's precious indigenous horse and donkey breeds. Application of assisted reproductive technologies like semen cryopreservation, artificial insemination, embryo transfer, and embryo cryopreservation proved to be useful in the conservation of any livestock species. ICAR-NRCE has perfected and standardized these technologies in horses.

The Institute has achieved successful foal production through embryo transfer using both fresh and frozen semen in the Marwari and Zanskari horse breeds. Continuing this success, scientists at the Regional Station of the Equine Production Campus at ICAR-NRCE in Bikaner, Rajasthan, have announced the birth of the country's first live horse foal produced via embryo transfer. The foal, named RAJ-SHEETAL, resulted from a mare inseminated with frozen semen. The embryo was flushed on day 7.5, then vitrified with customized cryodevices, and stored in liquid nitrogen. After two months, the embryo was thawed and transferred to a synchronized surrogate mare, which successfully carried the pregnancy to term. The healthy female foal was delivered today, weighing 20 kilograms.

Dr T.K. Bhattacharya, Director of ICAR-NRCE, emphasized that this technology is essential for addressing the declining equine population in the country. He highlighted that the cryopreservation of embryos allows for easy transportation, export, and import, enabling them to be implanted wherever needed. Dr Bhattacharya further elaborated that this feat is the first of its kind in the country for equines.

This achievement was made by Dr Talluri and his team at EPC, ICAR-NRCE, Bikaner, Rajasthan. The team has also vitrified 20 embryos of Marwari horse and 3 Zasnkari horse embryos till today.

(Source: ICAR-National Research Centre on Equines, Bikaner, Rajasthan)