

Classical Swine Fever Vaccine.

April 29, 2020

Context: The live attenuated Classical Swine Fever (CSF) Vaccine technology developed by the Indian Veterinary Research Institute (IVRI) has been released

- Live Attenuated Vaccines are vaccines prepared from living microorganisms (viruses, bacteria) that have been weakened under laboratory conditions.
- CSF is one of the diseases of pigs causing high mortality
- A lapinized CSF vaccine (uses Weybridge strain, UK) has been used in India since 1964 for controlling the disease. The vaccine is produced by sacrificing large numbers of rabbits for each batch. Lapinized denotes viruses which have been adapted to develop in rabbits by serial transfers in this species.
- The country's total requirements is 22 million doses per year. However, hardly 1.2 million doses are produced per year by the lapinized vaccine.
- In order to do away sacrificing rabbits and increase productivity, IVRI had earlier developed a cell culture CSF vaccine by adapting the lapinized vaccine virus in cell culture.
- Cell culture vaccine is from a foreign strain (Weybridge Strain, UK), IVRI has further developed a new CSF Cell Culture Vaccine by attenuating an indigenous virulent CSF virus in cell culture. The vaccine virus has a very high concentration and lakhs of doses can be produced very easily in cell culture and the country's requirement can be easily fulfilled using this new vaccine.
- This vaccine would be the most economical CSF vaccine.
- This vaccine gives immunity for two years as compared to

3 to 6 months protection under the vaccines currently being used.

Other

- IVRI- Established in 1889, IVRI is one of the premier research institutions dedicated to livestock research and development of the region.
- Classical swine fever (CSF) is a contagious viral disease of domestic and wild swine. It happens due to the viruses that affects pigs and sheep. The disease does not harm humans.