

Popular Article

Vaccination of Swine: A Vital Process for Reducing Piglet Mortality

Sumat Kumar Shakya¹, Kumar Govil²

¹Department of Livestock Production Management, College of Veterinary Science and Animal Husbandry, NDVSU, Rewa - 486001, Madhya Pradesh, India

²Department of Animal Nutrition, College of Veterinary Science and Animal Husbandry, NDVSU, Rewa - 486001, Madhya Pradesh, India

*Corresponding author: Sumat Kumar Shakya, Email: shakyasumit72@gmail.com

Introduction

This practice is related to veterinary medicine. Regulation of animal vaccination is less than the regulations of human vaccination. Animal vaccines have been found to be the most cost-effective and sustainable way to control infectious animal diseases. In 2017, the veterinary vaccine industry was valued at US\$7 billion and is projected to reach US\$9 billion in 2024. Through the World Health Organization (WHO) elimination effort, at least 80% of the population in every country is vaccinated.

Diseases are divided into diseases that cause economic losses, government-controlled diseases, and neglected diseases, all of which are linked to availability. The economic loss category includes vaccines needed in developing countries that are typically produced by the private sector. Whereas government-controlled diseases are controlled by government policy, the main issue here is that if the vaccine is expensive, it becomes less available to poor farmers.

Vaccination

Vaccination is done to develop immunity against the disease occurring in pigs. Farmers should vaccinate grower and finisher pigs against hog cholera two weeks after the piglets are separated from their mothers. Vaccination should be done periodically or before the onset of the disease. Pigs should be dewormed before vaccination. Animal vaccination is the vaccination of domestic, livestock or wild animals.

Route of Administration

Vaccine can be administered by many routes. In pigs, vaccines are mostly administered subcutaneously.

Key points

Vaccines play a vital role in the long-term solutions for effective prevention of existing and emerging infectious diseases.

Vaccination of animals helps reduce mortality in pigs and contributes to improving animal welfare.

Ease of use

Most of the livestock of small farmers in marginalized populations (MP)

die as a result of a disease, they do not reach their full potential, or they spread a disease. This problem can be prevented or controlled by increasing access to animal vaccines.

Regulation of animal vaccines compared to human vaccines

The development of animal vaccines has fewer regulatory requirements than human vaccines. This has resulted in less time and money involved in the creation and production of animal vaccines. The human vaccine development process typically takes 10 to 15 years, while the animal vaccine process takes an average of 5 to 7 years. Animal vaccine production has fewer studies to test efficacy and safety to prioritize potential vaccine targets compared to human vaccines.

The main issue with regard to

animal vaccination is access and availability. Vaccines are the most cost-effective measure to prevent disease in livestock populations; however, the arrangements for distributing vaccines to marginalized populations are still a challenge.

Some other issues include economic barriers, political barriers, technical and scientific barriers, regulatory barriers, field use barriers, and social and perception barriers.

Vaccination Schedule Pigs

The vaccination schedule of important vaccines used in India is described below.

Disease	Age and Booster Dose	Route	Remark
Swine Erysipelas	Age 6-8 weeks, repeat 6-9 months	Hide and muscle	-
Swine Fever	Age 6-8 weeks	1 ml Hide	-
Foot and Mouth Disease	Age 6-8 weeks, repeat 6-9 months	1 ml Hide	Immunity only 4-6 months
Tetanus	Age 4-6 weeks, 12 weeks and once a year	1-2 ml Hide and muscle	At the time of surgery and wound healing