

Vaccination In Animals

Majorly used Vaccines and their receptor diseases

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Section-E





<i>Disease</i>	<i>Vaccine</i>	<i>Time for Vaccination</i>	<i>Recommended dose and rate</i>
<i>Haemorrhagic Septicemia (HS)</i>	<i>HS (VRI)</i>	<i>May/June and November/December</i>	<i>5 ml / 300 kg s/c</i>
	<i>HS (NIAB)</i>	<i>Once a year (Before rainy season)</i>	<i>5 ml I/M</i>
<i>Black Quarter</i>	<i>BQ</i>	<i>March/April</i>	<i>5 ml s/c</i>
<i>Anthrax</i>	<i>Anthrax</i>	<i>August</i>	<i>1 ml s/c</i>
<i>Foot & Mouth Disease (FMD)</i>	<i>FMD (VRI)</i>	<i>February/March and September/October</i>	<i>5 ml s/c</i>
	<i>FMD (Marial)</i>	<i>At start of winter season</i>	<i>3 ml (large animal) 2 ml (small animal)</i>

History and Importance of Animal Vaccines:

Vaccines for animal diseases were the first to result from laboratory-based scientific investigation. French chemist Louis Pasteur developed a vaccine for chicken cholera in 1879, and one for anthrax of sheep and cattle in 1881. "Edward Jenner" For over two centuries, vaccines have been protecting us from disease. An English physicist named Edward Jenner developed the smallpox vaccine, the world's first vaccine.

Pasteur tested his rabies vaccine on animals in 1884—within a year, the vaccine's

success prompted its use on humans bitten by suspected rabid dogs.

Animals have been both the recipients and the sources of vaccines and serums. Antitoxin manufacture required large animals, usually horses, to produce the antibody-rich blood serums for human use. Similarities between animal and human immune functions, as well as a shared susceptibility to the microbial pathogens, undergirded the success of these methods.

The economic importance of livestock spurred governments to support research to understand and control animal disease. Responding to extensive disease-related losses in the cattle and pork industry, in 1884 the United States government established the Bureau of Animal Industry (BAI) within the Department of Agriculture. The Bureau's research and programs proved profoundly beneficial to the livestock industry, while also spurring the growth of the veterinary sciences.

What are vaccines, and why do they matter?

Vaccines are products designed to trigger protective immune responses and prepare the immune system to fight future infections from disease-causing agents. Vaccines stimulate the immune system's production of antibodies that identify and destroy disease-causing organisms that enter the body.

Vaccines provide immunity against one or several diseases that can lessen the severity or prevent certain diseases altogether.

Experts agree that widespread use of vaccinations within the last century has prevented death and disease in millions of animals. Vaccinations protect your pet from highly contagious and deadly diseases and improve your pet's overall quality of life.

5 Important reasons to vaccinate your pet

- 1. Vaccinations prevent many pet illnesses.*
- 2. Vaccinations can help avoid costly treatments for diseases that can be prevented.*
- 3. Vaccinations prevent diseases that can be passed between animals and also from animals to people.*
- 4. Diseases prevalent in wildlife, such as rabies and distemper, can infect unvaccinated pets.*
- 5. In many areas, local or state ordinances require certain vaccinations of household pets.*

Do vaccinations have side effects?

It is common for pets to experience some or all of the following mild side effects after receiving a vaccine, usually starting within hours of the vaccination. If these side effects last for more than a day or two, or cause your pet significant

discomfort, it is important for you to contact your veterinarian:

- *Discomfort and local swelling at the vaccination site*
- *Mild fever*
- *Decreased appetite and activity*
- *Sneezing, mild coughing, "snotty nose" or other respiratory signs may occur 2-5 days after your pet receives an intranasal vaccine*

More serious, but less common side effects, such as allergic reactions, may occur within minutes to hours after vaccination. These reactions can be life-threatening and are medical emergencies. Seek veterinary care immediately if any of these signs develop:

- *Persistent vomiting or diarrhea*
- *Itchy skin that may seem bumpy ("hives")*
- *Swelling of the muzzle and around the face, neck, or eyes*
- *Severe coughing or difficulty breathing*
- *Collapse*
- *A small, firm swelling under the skin may develop at the site of a recent vaccination. It should start to disappear within a couple weeks. If it persists more than three weeks, or seems to be getting larger, you should contact your veterinarian.*

Always inform your veterinarian if your pet has had prior reactions to any vaccine or medication. If in doubt, wait for 30-60 minutes following vaccination before taking your pet home.

Quarantine Measures

We must have to observe quarantine to observe hygiene:

- *Keep sick animals separate for at least three weeks and then mixed into shed*
- *Do not exchange breeding stocks with other farms*
- *Avoid stray dogs as they play important role in disease spreading*
- *Keep the environment healthy by using disinfectants and antiseptics*

Dipping is an expensive operation but is desirable for tick eradication program. The construction of a dipping tank varies according to the kind and number of animals required to be dipped. In tropical and subtropical countries it is preferable to cover the tank with a roof, as it will avoid excessive concentration of the insecticides by evaporation or dilution by rain. The following precautions should be observed while dipping animals for tick control and treatment:

- *Wounds must be attended to thoroughly before resorting to dipping otherwise dipping makes the animal feel more discomfort and toxicity may occur*
- *Avoid dipping on a cloudy, rainy, windy or cold day*
- *The animals to be dipped should not be thirsty*
- *Animals that are fatigued due to any reason should not be dipped*
- *Avoid contamination of the dipping tank with organic matter as it lowers the concentration of insecticides in the dip*
- *The animals must actually swim in the tank and have one or two dips of their heads in the bath. For this purpose, two attendants with forked blunt sticks should direct the operation*
- *Let the animals drain properly before they are sent out to the fields otherwise the insecticide will cause pollution of feed, fodder or other things coming in contact with insecticides. Design the dipping area with a good drain back to the dipping tank.*
- *The concentration of dip solution should be very carefully adjusted according to manufacturer's instructions*
- *Weak animals less than three months old, lactating animals or animals in advanced pregnancy should not be subjected to this operation*