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A CASE REPORT

New generation vaccines for livestock diseases

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Abstract : Vaccine is a biological preparation that improves immunity to a particular disease. A vaccine typically contains an agent that resembles a disease-causing microorganism, and is often made from weakened or killed forms of the microbe. The agent stimulates the body's immune system to recognize the agent as foreign, destroy it and remember it, so that the immune system can more easily recognize and destroy any of these microorganisms that it later encounters. Vaccines can be prophylactic (e.g. to prevent or ameliorate the effects of a future infection by any natural or wild pathogen), or therapeutic (e.g. vaccines against cancer are also being investigated). Different kinds of vaccines from conventional to molecular types are nowadays manufactured to combat infections. But it is the owner of livestock who should determine the potential form of the same which may prove helpful as prophylactic measure against various diseases. Judgment about the effectiveness of a vaccine type depends upon its compatibility, administration route and dose, cost effectiveness and maintenance of proper cold chain. The immune system recognizes vaccine agents as foreign, destroys them and remembers them. When the virulent version of an agent comes along the body recognizes the protein coat on the virus, and thus is prepared to respond, by neutralizing the target agent before it can enter cells and by recognizing and destroying infected cells before that agent can multiply to vast numbers. Proper schedule of administration, route of administration, effectiveness, maintenance of cold chain and cost efficiency are some of the primary governing factors for use of any vaccine.

Key words : Diseases, Effectiveness, Livestock, Vaccines

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