



Guidelines to Large Animal Vaccination Programs

Understanding Vaccination Principles

Beef Quality Assurance guidelines should always be practiced when administering your vaccinations. When possible, select vaccines that may be administered subcutaneously and injected in front of the shoulder. If a product must be given intramuscularly, it should be injected in the muscles of the neck. To avoid costly lesions, do not inject medications or vaccinations into any other area of cattle, including the rump.

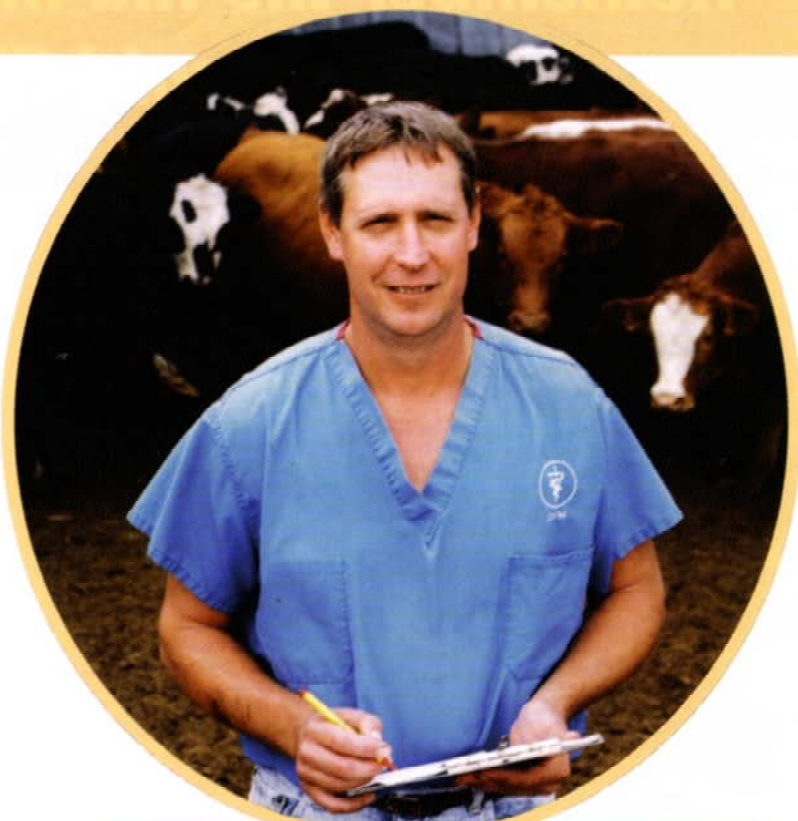
When vaccinations are administered is also important. Vaccinations should be done during the cooler part of the day. Working cattle should be avoided if temperatures are humid and above 85°F.

Vaccination Cautions

Anaphylactic reactions can occur when vaccinating. Keeping epinephrine at close range is always recommended. Certain vaccines such as Lepto, Campylobacter, Salmonella, E.coli, and Pastuerella vaccines have a higher risk of reaction. It is recommended that no more than two of these agents be combined at one time. It has been reported that modified live-IBR vaccines given to calves less than five days old has been known to cause infection from the herpes one virus. Intranasal products are recommended for young calves.

The following guidelines are offered from the Utah state extension office on care and handling of vaccinations:

- Read the package insert and follow directions for the specific product used.
- If two doses are directed, give two doses; or there may be very little immunity.
- Calves vaccinated when under six months should usually be vaccinated again after six months of age.
- To obtain a benefit in the colostrums from vaccination, give the last prescribed dose of the vaccine at least four weeks pre-calving.
- Refrigerate and store vaccines as directed on the label. Use an ice cooler to protect vaccines while they are away from the refrigerator.
- Reconstitute only the amount of vaccine which can be used within an hour, then mix more later as needed.
- Keep the reconstituted vaccine out of direct sunlight and away from excessive heat.



Dr. Wayne E. Rychnovsky, of Southern Hills Veterinary Services, Inc. of Corning, Iowa.

- Remember that some vaccines may cause abortion (IBR) and fetal defects (BVD). Read the label of the specific vaccine for precautions about use in or around pregnant animals.
- Always read the label and be sure the product is suitable for the animals to be vaccinated. If you are unsure, talk to your veterinarian or call the manufacturer directly before you use the product.

Beef Cattle

What vaccinations should cattle have at various times of the year? This question is difficult to answer due to management practices and disease prevalence varying from region to region, and even from ranch to ranch. These following vaccination recommendations are meant to serve only as guidelines. Commonly used vaccines and injections are listed as starting at calving time and continuing through fall.

Calves - Preweaning Option, about three months old

- Intranasal IBR-PI3 - Modified Live Vaccine (MLV); IBR - Infectious Bovine Rhinotracheitis, PI3 - Parainfluenza 3
- 5-way Leptospirosis (Canicola-Grippe-Hardjo-Ictero-Pomona strains)
- 7-way Blackleg (Clostridials); Clostridium Chauvoei-Septicum-Novyi-Sordellii and Perfringens Types B, C & D Bacterin Toxoids
- Deworm
- Treat for grubs, lice and/or flies



Food Animal

3-5 Weeks Before Weaning

- Intranasal IBR-PI3 - Modified Live Vaccine (MLV); IBR - Infectious Bovine Rhinotracheitis, PI3 - Parainfluenza 3
- 5-way Leptospirosis (Canicola-Grippe-Hardjo-Ictero-Pomona strains)
- 7-way Blackleg (Clostridials); Clostridium Chauvoei-Septicum-Novyi-Sordellii and Perfringens Types B, C & D Bacterin Toxoids

Other Possible Vaccinations

- Calfhood Brucellosis vaccination (4-8 months-old); all replacement heifers by veterinarian; Strain RB51 which does not cause titers
- Pasteurella haemolytica; containing leukotoxin component, a booster at weaning may be required
- Haemophilus somnus; requires a booster at weaning
- Deworm
- Treat for grubs, lice and/or flies

At Weaning - Replacement Heifers & Calves being Preconditioned or Stockered

- IBR-PI3-BVD-BRSV - MLV; BVD - Bovine Viral Diarrhea, BRSV - Bovine Respiratory Syncytial Virus; most products require a booster vaccination 3-4 weeks later though there are some new products which do not require a booster.

Calves - Weaning Option, about three months old

- Intranasal IBR-PI3 - Modified Live Vaccine (MLV)
- 5-way Leptospirosis
- 7-way Blackleg (Clostridials)
- Deworm
- Treat for grubs, lice and/or flies

At Weaning - Replacement Heifers & Calves being Preconditioned or Stockered

- IBR-PI3-BVD-BRSV - MLV
- 5-way Leptospirosis
- 7-way Blackleg (Clostridials)

Other Possible Vaccinations - Calfhood Brucellosis vaccination (4-8 months-old)

- Pasteurella haemolytica
- Haemophilus somnus; requires a booster at weaning
- Deworm
- Treat for grubs, lice and/or flies

Yearling Replacement Heifers Option, 60-days Before Start of Breeding Season

- IBR-PI3-BVD-BRSV - MLV
- 5-way Leptospirosis
- Vibriosis (Campylobacteriosis)

30-days Before Start of Breeding Season

- 5-way Leptospirosis
- Vibriosis (Campylobacteriosis)
- Deworm
- Treat for grubs, lice and/or flies

Cows & Bulls, 30-days Before Start of Breeding Season

- 5-way Leptospirosis
- Vibriosis (Campylobacteriosis)
- Deworm
- Treat for grubs, lice and/or flies

September-October

- Deworm
- Treat for grubs, lice and/or flies

January-February

- Treat for lice

April-May

- Deworm
- Begin fly control program (If fly tags are used, do not be put in until May and take out in fall.)

Dairy Cattle

One Month Calf

- 7-way Clostridium

5 to 6 Months

- Vaccinate for Brucellosis
- 7-way clostridium; repeat in 3 weeks
- IBR, PI3, BVD, BRSV * * (follow label directions for repeating procedure) * * (Use the modified live product and keep calves away from adult cows)
- Deworm

6 to 13 Months At 13 months

- IBR, PI3, BVD, BRSV- (MLV) at least 45 days prior to breeding
- Vaccinate for Leptospirosis
- Vaccinate for Vibrio if natural service is used
- Deworm

Pregnant Heifers

- Leptospirosis at 18 to 20 months
- Vit E and selenium 45 to 60 days prior to freshening
- Vaccinate with E.Coli, Rota and Corona beginning 60 days prior to freshening

