



University of Idaho
College of Agriculture
Cooperative Extension Service
Agricultural Experiment Station

Current Information Series No. 234

August 1974

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Cattle Vaccines Which to Use?

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What vaccinations should cattle have at various times of the year? This is difficult to answer because management practices, disease prevalence, and nutritional levels vary from region to region or even from ranch to ranch in the same area. Recommendations in this publication are meant to serve as guidelines. You should consult your veterinarian and extension agent to tailor a program suited to your operation.

Vaccines and injections widely used in Idaho are listed on the next page. Sometimes you may need to use all of them. At other times you may need very few. The vaccines and injections are listed starting at calving time and continuing through the fall.

A word of caution: At the very best, vaccines and injections are an aid. Good sanitation, management, and nutritional practices should be employed for the best results. Read and follow the directions on the product used. Consult your local veterinarian.

Types of Vaccines

There are two general categories of vaccines: live products and killed products. IBR, BVD, PI-3, and Bangs are generally live products. These are quite sensitive to light, disinfectants and heat, so do not use chemical disinfectants in syringes or needles. Boil them. Do not reconstitute these vaccines more than 1 hour before use. Protect them from sunlight. Keep them cool.

Killed vaccines are blackleg, malignant edema, redwater, enterotoxemia, black disease, and leptospirosis. These are less sensitive and you can use chemical disinfectants in your needles and syringes. These vaccines should be kept cool, however, and protected from sunlight.

Vaccines give longer immunity than serums or antitoxins, but usually do not protect until about 2 weeks after administration. Live vaccines usually give a better and longer lasting immunity than killed products. Serums or antitoxins protect for only about 2 weeks, but do protect as soon as administered.

IBR, BVD, and PI-3, for practical purposes, give lifetime immunity if administered after an animal is 6 to 8 months old. There is some academic argument over the length of immunity, but under field conditions the diseases are so prevalent that natural exposure probably boosts the immunity. Our virologists tell us it is best to use IBR and BVD vaccines about 3 weeks apart because calves are not as likely to get sick from the vaccine. When you cannot space out vaccinations, vaccinate only healthy animals that are not under stress.

Killed vaccines give different lengths of immunity. Some, such as redwater, need to be repeated each 6 months or more often in severely infected areas. Others need to be repeated each year. Follow the directions and consult your veterinarian on the length of immunity.

No vaccine is 100 percent effective. Effectiveness depends on such things as age of animal, passive immunity the animal has when vaccinated, the stress on the animal, diseases, and other factors we don't understand. Vaccines against some diseases are more effective than others.

When you work out your program, remember record keeping. If you depend on memory, you will make too many mistakes. Good records are well worth the time and expense.

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Vaccines and Injections

Calving Time

Calves at time of birth

1. Vitamin A, if deficient.
2. Selenium — nearly all of Idaho is borderline deficient.
3. Enterotoxemia **antitoxin** — in some areas if cows are not vaccinated.

Cows

At calving time we usually do not recommend vaccination of cows unless there is an outbreak of a disease such as Lepto.

Branding Time

Calves

1. Blackleg and malignant edema.
2. Black disease (*Clostridium novyii*) — has become important in some areas in recent years.

Replacement Heifers

1. IBR (red nose) — if not done earlier.
2. BVD (bovine virus diarrhea) — if not done earlier.
(Note: IBR and BVD are widespread, so give serious consideration to these vaccines.)
3. Black disease — if in black disease area.
4. Vibriosis — if present in your herd or if you run on a range where bulls of several owners mix or if you buy used bulls or old cows.
5. Anaplasmosis (yellow bag) — use on animals brought in from clean areas if the disease is in your area.
6. Redwater — if in redwater area.
7. Leptospirosis — if the disease is prevalent.*

Cows

1. Vibriosis — same as heifers.
2. IBR — use only on open cows not vaccinated before.**
3. BVD — use only on open cows not vaccinated before.
4. Redwater — if in redwater area.
5. Anaplasmosis — see heifers.
6. Leptospirosis — if the disease is prevalent.*
7. Black disease — if in black disease area.

Bulls

1. IBR — if they have not been vaccinated before.
2. BVD — if they have not been vaccinated before.
3. Anaplasmosis — particularly replacement bulls if the disease is in your area.
4. Redwater — if in redwater area.
5. Black disease — if in black disease area.
6. Leptospirosis — if prevalent in your area.*

Fall

(When cattle are brought in from the range or off pasture.)

Weaners

1. IBR.
2. BVD.
3. PI-3 (virus shipping fever vaccine).
(With IBR, BVD, and PI-3, vaccinate 2 weeks before weaning. If this is not possible, wait 2-3 weeks after weaning, until the animals settle down.)
4. Leptospirosis.
5. Blackleg and malignant edema — many calves are too young to get a good immunity when done at branding time, so repeat at this time.
6. Black disease and Sordelli — if prevalent in your area.
7. Enterotoxemia — if it has been a problem.
8. Brucellosis — to replacement heifers between 3 and 10 months of age.

Cows

1. Leptospirosis.*
2. Enterotoxemia — if in your herd. This should protect the calf.
3. Vitamin A — if cows have been on dry feed for a long time.

Bulls

1. Leptospirosis.

*Vaccine is now available for two additional types of Leptospirosis (*L. hardjo* and *L. grypotyphosa*). Ask your veterinarian about these in your area.

**Intranasal IBR and PI-3 Vaccine can be used on pregnant cows.

When you have questions, consult your veterinarian.

Follow directions.

Keep records.

*Published and Distributed in Furtherance of the Acts of May 8 and June 30, 1914,
by the University of Idaho Cooperative Extension Service, James L. Graves,
Director; and the U.S. Department of Agriculture, Cooperating.*