

VACCINE BACKGROUNDER FOR BEEF COW-CALF PRODUCERS



WHAT ARE VACCINES?

Vaccines are biological substances used to stimulate immunity to a particular bacteria or virus that causes disease. They are not antimicrobials; thus, they can be used in most organic and natural programs.

Vaccinating Your Beef Herd Videos

Click [HERE](#)



Source: Beef Cattle Research Council



MODIFIED-LIVE VACCINES (MLV)

- Contain weakened strains of bacteria or viruses.
- Usually induce quicker immunity than killed vaccines.
- MLV vaccines given in the nose are safe in young calves and pregnant heifers/cows.
- MLV vaccines for injectable use may cause abortion in pregnant heifers/cows.

Talk to your veterinarian before using MLV vaccines in pregnant heifers/cows.

KILLED VACCINES

- Contain killed whole viruses or bacteria or parts of them.
- Autogenous vaccines are killed vaccines made from your herd's bacteria or viruses.
- Toxoids are a subset, containing modified toxins that induce an immune response.
- Viruses or bacteria are typically killed by heat or chemicals.
- Usually require more boosters (revaccinations) than MLV vaccine.
- More likely to cause hypersensitivity (rare) and injection site reactions after vaccination.
- Safe in unvaccinated pregnant heifers/cows.



VACCINES CAN BE EFFECTIVE TOOLS BUT ONLY WHEN USED APPROPRIATELY

Vaccines are only one tool to prevent infectious disease; they are less effective in disease control without:

- Well balanced nutrition at each stage of production.
- Good environmental management.
- Good colostrum management.

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DID YOU KNOW?

- Vaccines must be properly administered to induce an effective immune response (**Watch video here**).
- Protection is not immediate after vaccination, usually taking 10-14 days.
- Typically, multiple doses of a vaccine are required to induce specific immunity.
- Not every animal will respond the same to vaccination.
- Immunity induced by vaccination does not last the life of the animal; therefore, revaccination is required for all vaccines.



VACCINATION MINIMIZES DISEASE RISKS







- **Read vaccine manufacturer's label directions before use.**
- **Follow label directions and your veterinarian's vaccination protocol.**
- Annually review your vaccination protocol with your veterinarian.
- Keep good vaccination records.

CORE VACCINE LIST

Core vaccines are those that provide protection from diseases endemic in beef cow-calf herds, which are virulent or highly infectious, pose a severe disease risk to either cows, bulls, replacement heifers, and/or calves, and to which there is an efficacious commercial vaccine available.

ALL cow-calf operations should vaccinate their herd against the following:

-  **Bovine Viral Diarrhea Virus (BVDV Type 1 & 2)**
-  **Bovine Herpesvirus Type 1 (BHV1)**
-  **Bovine Respiratory Syncytial Virus (BRSV)**
-  **Clostridial bacteria** (*Clostridium chauvoei*, *C. septicum*, *C. novyi*, *C. sordelli*, and *C. perfringens* Type B, C, & D)

This list is similar to the American Association of Bovine Practitioners' [Vaccination Guidelines](#) (Oct 2021).



CONSULT THE BEEF COW-CALF VACCINES CORE LIST

