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.

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.
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).