

Why use the ImmPact program now?

A pre-breeding vaccination program provides protection through the critical breeding and gestation periods. Vaccinations at this prevention point not only protect your cows, heifers and bulls from reproductive and respiratory diseases but also keep this year's calf crop healthy. Your herd is prepared for a healthy calf crop next season, too.

Selection and timing of BVD protection is crucial at this point. The BVD virus suppresses the immune system and manifests itself in numerous ways. The most problematic form of BVD causes persistently infected (PI) calves, which shed the infective virus throughout their lives and can be devastating to a herd. PI calves occur when unprotected cows or heifers are infected with noncytopathic virus between 40 and 120 days of gestation. Thus, a vaccination program that is implemented just prior to breeding reduces the risk of PI

calves, as well as other diseases that can be spread during the breeding season.

Vaccinating calves at branding/turnout builds individual immunity and also can result in better response to boosters at weaning. Research shows that the timing of vaccination, specifically early vaccination, improves animal health and growth performance. In the first 21 days at the feedlot, calves that had a series of vaccinations before weaning gained one-half of a pound more per day than those calves that were only vaccinated upon arrival at the feedlot.¹

A strong management program that incorporates proper biosecurity, good nutrition, low stress and vaccination ensures a more profitable year through:

- Better conception rates
- Better calving percentages
- Healthy, uniform and heavy calves at weaning

1. Kreikemeier K, Johns J, Stokka G, Bullock D, Marston T, Harmon D. Kansas State University Cattle Feeders' Day 1996 report of progress.

IMPACT POINT: PRE-BREEDING & BRANDING/TURNOUT



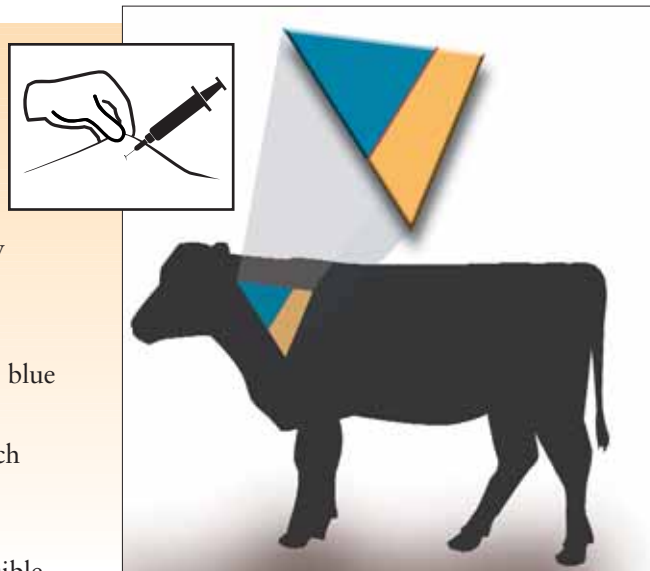
Practice Beef Quality Assurance:

Like all food products, beef needs to be good tasting, safe and consistently high quality to earn consumer loyalty. Novartis supports Beef Quality Assurance (BQA) efforts by providing SubQ claims on its products whenever possible.

To follow BQA guidelines when injecting:

- Use the new, smaller triangular injection zone shown in blue
- Use SubQ injections in the neck whenever possible
- Use the "tenting" injection technique and a 1/2- to 3/4-inch needle to ensure a true SubQ administration
- Give intramuscular (IM) shot in the smaller blue zone

Moreover, use oral, intranasal and topical routes when possible.



The Novartis Professional Service Veterinarian Team:

Jim Rhoades, DVM • Kim Anderson, DVM • Kerry Barling, DVM, PhD • Doug Scholz, DVM
(800) 843-3386

*Novartis encourages you to work with your veterinarian to customize ImmPact.
For more information about Novartis vaccines, contact your veterinarian or animal health supplier.*



www.livestock.novartis.com



ImmPact™

**A prevention pact for healthy cattle,
healthy market relationships**

Preventative measures at pre-breeding and branding/turnout can help increase the productivity of your herd by:

- Boosting cow immunity right before the critical breeding season
- Achieving a short breeding cycle and thus a more uniform calf crop
- Ensuring a healthy calf from every cow
- Protecting calves as maternal antibody protection declines

- Priming their immune systems so calves rapidly respond to vaccinations at weaning
- Guarding against pneumonia, blackleg, pinkeye and footrot

Novartis has designed the ImmPact planner to help you and your veterinarian produce healthy cattle. With ImmPact in place, you offer buyers cattle that are ready to perform. Think of it as your pact with the industry to produce healthy cattle and healthy market relationships.



Impact your calves at pre-breeding and branding/turnout

OBJECTIVE: A value-added calf from every cow at 45 days post-weaning

Modified live vaccine* approach

ImmPact point: pre-breeding (cows, heifers and bulls)

- Administer Arsenal® 4.1
- Administer Vib Shield® Plus L5
- Administer Clostri Shield® 7
- Administer Fusogard® to bulls (optional)
- Internal and external parasite control
- Provide mineral and vitamin supplements appropriate for your area

Notes/additional instructions: _____

ImmPact point: branding/turnout (calves 1 to 3 months old on open cows)

- Administer Arsenal® 4.1 or Quick Shield™ IN IBR-PI₃
- Administer Clostri Shield® 7
- Administer Pinkeye Shield™ XT4
- Internal and external parasite control
- Castrate bulls and dehorn calves
- Implant calves not used for replacements
- Uniquely identify and tag animals according to current standards

Notes/additional instructions: _____

* Vaccines must be boosted according to label directions.



Arsenal 4.1 is a modified live vaccine that aids in the prevention of BVD Types 1 and 2, BRSV, IBR and PI₃. It protects against the BVD that's most likely to cause a BVD-linked respiratory outbreak: the noncytopathic (NCP) strain. NCP is the sole cause of Persistently-Infected calves.

Vib Shield Plus L5 is a one-dose product that can be used to protect the breeding herd against both vibriosis and five common strains of leptos. A single injection 2-4 weeks prior to breeding helps stop reproductive diseases that upset breeding schedules and lead to non-uniform calf crops.



Fusogard delivers effective, economical footrot and liver abscess protection.

Inactivated vaccine* approach

ImmPact point: pre-breeding (cows, heifers and bulls)

- Administer Vira Shield® 6+VL5 or Vira Shield® 6+VL5 Somnus or Vira Shield® 3+VL5 (if BRSV and PI₃ are not concerns)
- Administer Clostri Shield® 7
- Administer Fusogard® to bulls (optional)
- Internal and external parasite control
- Provide mineral and vitamin supplements appropriate for your area

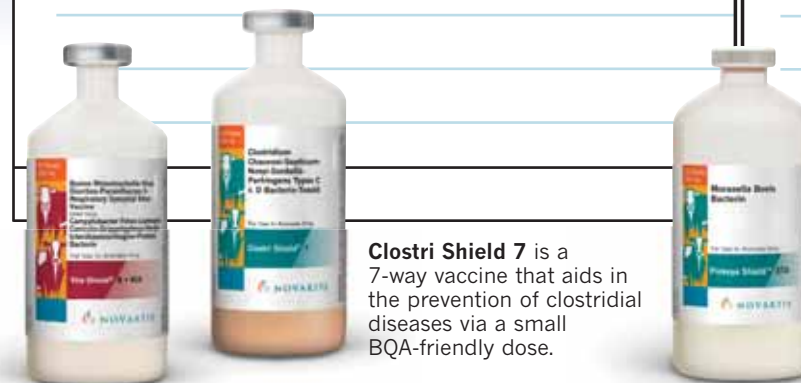
Notes/additional instructions: _____

ImmPact point: branding/turnout (calves 1 to 3 months old on open or pregnant cows)

- Administer Vira Shield® 6 or Vira Shield® 6+Somnus
- Administer Clostri Shield® 7
- Administer Pinkeye Shield™ XT4
- Internal and external parasite control
- Castrate bulls and dehorn calves
- Implant calves not used for replacements
- Uniquely identify and tag animals according to current standards

Notes/additional instructions: _____

* Vaccines must be boosted according to label directions.



Vira Shield 6 is the first vaccine to feature 3-way BVD coverage, including: NCP (noncytopathic) Type 1, NCP Type 2 and CP (cytopathic) Type 1. It also provides protection against IBR, PI₃ and BRSV. **Vira Shield 6+VL5** also protects against five serovars of leptospira and vibrio. *Haemophilus somnus* protection is available when you choose combinations with that antigen.

Clostri Shield 7 is a 7-way vaccine that aids in the prevention of clostridial diseases via a small BQA-friendly dose.

Pinkeye Shield XT4 contains four field isolates of *Moraxella bovis* for broad-spectrum pinkeye prevention.

