# 2022 Zoetis Fall Program

Cattle Fast Facts

## **Cattle Respiratory Vaccines**

#### **Bovi-Shield Gold One Shot®**

Bovi-Shield Gold One Shot protects against the same pathogens as the parent vaccines, Bovi-Shield Gold\* 5 and One Shot\*. In one convenient dose, Bovi-Shield Gold One Shot:

- Provides protection against the major respiratory viruses: infectious bovine rhinotracheitis (IBR) virus and bovine viral diarrhea (BVD) Types 1 and 2 viruses, bovine respiratory syncytial virus (BRSV), and parainfluenza 3 (PI<sub>3</sub>) virus, as well as Mannheimia haemolytica protection.
- Stimulates an onset of protective immunity as early as seven days against *M. haemolytica*.<sup>1</sup>
- Convenient one-dose protection helps protect calves from BRD through weaning and on arrival, your busiest times of the year.

Do not use in pregnant cattle (abortions can result) unless they were vaccinated, according to label directions, with any Bovi-Shield Gold FP or PregGuard Gold FP vaccine prebreeding initially and within 12 months thereafter. Do not use in calves nursing pregnant cows unless their dams were vaccinated within the past 12 months as described above.

To help ensure safety in pregnant cattle, heifers must receive at least 2 doses of any Bovi-Shield Gold FP or PregGuard Gold FP vaccine with the second dose administered approximately 30 days prebreeding.

Learn more at BuildingHealthyHerds.com.

#### Inforce 3®

Inforce 3 respiratory vaccine has accelerated past other cattle vaccines to become the most-used cattle vaccine on the market.<sup>2</sup> Have your beef customers consider Inforce 3 and One Shot\* BVD in their calf immunization program for comprehensive respiratory protection. Dairy customers can also vaccinate with Inforce 3 to help protect calves as young as 3 days of age from respiratory challenges during stressful times, like the first few days of life or weaning and relocating. Inforce 3 also helps protect dairy cows during the stress of the periparturient period.<sup>3</sup>

- Labeled for single-nostril administration and has a six-month duration of immunity claim against respiratory disease caused by IBR.
- Protects against BRSV, IBR and Pl3.

Learn more at BuildingHealthyHerds.com.

#### One Shot® BVD

One Shot BVD has demonstrated success in protecting against respiratory disease caused by BVD Types 1 and 2, as well as *M. haemolytica*.

• Stimulates an onset of protective immunity as early as seven days against *M. haemolytica*,¹ complementing the rapid protection provided by Inforce 3.

Learn more about One Shot® BVD at <u>BuildingHealthyHerds.com</u>.

## **Cattle Reproductive Vaccines**

## CattleMaster Gold FP® 5

- For cows and calves, it delivers respiratory protection against the common viral causes of BRD.
- CattleMaster Gold FP 5 represents the first and only killed BVD vaccine to deliver fetal protection from BVD-persistent infection and IBR abortion, and is safe for any cow, any calf, anytime.

Fetal protection (FP) vaccines from Zoetis help keep newborn calves safe before the day they are born. With CattleMaster Gold FP\*, your customers are using reproductive protection supported by Zoetis with its Fetal Protection Support Guarantee.\* \*The Fetal Protection Support Guarantee will be administered through Zoetis Veterinary Medical Information and Product Support (VMIPS) at 800-366-5288. Proof of purchase is required. Calves born to BVD PI-positive cows or heifers do not qualify for the guarantee. This guarantee does not apply to, and Zoetis shall not be liable for, any (x) damages caused as a result of the improper handling, misuse or abuse of the vaccines that are the subject of this guarantee, or the willful misconduct or negligence of any third party; or (y) any indirect, punitive, special, incidental, or consequential damages. Zoetis reserves the right to modify or cancel the terms and conditions of this guarantee.

For more information, visit <u>BuildingHealthyHerds.com</u>.



## **Cattle Implants**

#### Synovex® One Feedlot and Synovex® One Grower

The patented pore-forming polymer barrier of Synovex One Feedlot and Synovex One Grower delivers up to 200 days of uninterrupted performance for feedlot and stocker steers and heifers. By eliminating the need to re-implant, the Synovex One formulations give producers more operational flexibility.

## Synovex One Feedlot and Synovex One Grower showed improved performance over nonimplanted steers and heifers in research studies.

 Feedlot steers receiving the Synovex One Feedlot implant demonstrated a 15.4% gain improvement, with an average daily gain (ADG) of 3.45 pounds per day and a 9.8% improvement in feed efficiency.<sup>5</sup>

- Heifers receiving Synovex One Feedlot demonstrated a 12% increase in ADG, with an ADG of 3.09 pounds per day and a 7% improvement in feed efficiency.<sup>5</sup>
- A four-site study with 1,600 steers and heifers demonstrated that cattle implanted with Synovex® One Grower had a 62.1-pound improvement in final body weight and a 10.8% improvement in ADG.6

Do not use Synovex products in veal calves.

Synovex One Grower is not approved for repeated implantation (reimplantation) with this or any other cattle ear implant within each separate production phase (pasture phase and confinement phase). Do not use in beef calves less than two months of age, dairy calves and veal calves. Refer to label for complete directions for use, precautions and warnings.

For more information, visit GrowWithSynovex.com.

#### **Cattle Parasiticides**

#### Dectomax® Injectable and Dectomax® Pour-On

- Dectomax Injectable is approved for both subcutaneous (SC) and intramuscular (IM) administration, with no precautions for injection site discomfort or tissue reaction in cattle. Dectomax Injectable also protects against more parasites and life stages than any other injectable dewormer.\*
- In stocker trials, Dectomax Injectable controlled parasites to outgain injectable ivermectin with clorsulon or ivermectin by approximately 26 pounds (pooled treatment difference derived from meta-analysis of seven stocker trials).<sup>7</sup>
- Dectomax Pour-On has the longest duration of any nonprescription external parasite control product on the market against the biting cattle louse (*Bovicola [Damalinia] bovis*) for up to 77 days and is the only pour-on with duration against long-nosed cattle louse (*Linognathus vituli*) at 42 days.\*

Dectomax Injectable has a 35-day pre-slaughter withdrawal period. Dectomax Pour-On has a 45-day pre-slaughter withdrawal period. Do not use in female dairy cattle 20 months of age or older. Do not use in calves to be processed for veal. Dectomax Injectable has been developed specifically for cattle and swine. Use in dogs may result in fatalities.

\*Based on comparison of approved labels for Dectomax Injectable, LongRange® Injectable, Ivomec® Injectable, Ivomec® Plus Injection and Cydectin® Injectable.

For more information, visit <u>GetLessParasites.com</u>.

Consult your veterinarian for assistance in the diagnosis, treatment and control of parasitism.

#### Valbazen® Suspension

- Valbazen Suspension controls more parasites and life stages than any oral drench (white) dewormer on the market, including Safe-Guard® 10% Suspension or Synanthic®.8
- Valbazen is the only oral dewormer that removes and controls adult liver flukes.
- In a study in calves, the active components of Valbazen® reach maximum plasma concentration in less than 12 hours.9

Cattle must not be slaughtered within 27 days after the last treatment with Valbazen. Do not use in female dairy cattle of breeding age. Do not administer to female cattle during the first 45 days of pregnancy or for 45 days after removal of bulls.



## **Cattle Reproductive Products**

### Lutalyse® HighCon Injection

A successful dairy reproductive program allows for more efficient breeding, saves time and helps protect the bottom line. Lutalyse *HighCon* Injection (*dinoprost tromethamine injection*) is a high-concentration formula that offers cattle producers and veterinarians a flexible, convenient option to manage reproductive efficiency.

Lutalyse *HighCon* is a convenient and flexible option:

- · High-concentration formulation.
- Approved as a 2-mL SC or IM dose.
- The first-to-market prostaglandin with an SC route-of-injection option, in addition to an IM option, approved by the Food and Drug Administration (FDA). This allows producers to abide by strict Dairy Animal Care and Quality Assurance as well as Beef Quality Assurance standards to minimize injection-site blemishes.
- Bigger vial presentation resulting in more doses per bottle.
- Approved for use with Factrel® Injection (gonadorelin injection) to synchronize estrous cycles to allow fixed-time artificial insemination in lactating dairy cows, helping achieve higher pregnancy rates.<sup>10</sup>

**IMPORTANT SAFETY INFORMATION FOR LUTALYSE/ LUTALYSE HIGHCON:** Women of childbearing age and persons with respiratory problems should exercise extreme caution when handling Lutalyse/Lutalyse *HighCon*. Lutalyse/Lutalyse *HighCon* is readily absorbed through the skin and may cause abortion and/or bronchiospasms, therefore spillage on the skin should be washed off immediately with soap and water. Aseptic technique should be used to reduce the possibility of post-injection clostridial infections. Do not administer Lutalyse/Lutalyse *HighCon* in pregnant cattle unless cessation of pregnancy is desired.

See full Prescribing Information for Lutalyse.

See full Prescribing Information for Lutalyse HighCon.

#### Factrel® Injection

Dairy producers can use Factrel Injection (*gonadorelin injection*) and Lutalyse Injection (*dinoprost tromethamine injection*) (or Lutalyse *HighCon*) in many of the synchronization protocols.

Factrel is an available form of gonadotropin-releasing hormone (GnRH), which causes the secretion of luteinizing hormone and follicle-stimulating hormone. These two naturally occurring hormones cause ovulation of the dominant follicle present on the ovary.

#### Factrel provides:

- Treatment of infertility due to ovarian cysts
- Reduction of number of days to next estrus
- Better utilization of AI genetics when cows are prepared for insemination through resolution of follicular cysts
- Flexible label claim of a 2 to 4 mL dosage when using in synchronization programs

A 2021 study found that there was an 11.7% increase in first service conception in cows that have given birth more than once when given 4 mL of Factrel versus 2 mL at the third GnRH injection of Double-Ovsynch synchronization programs.<sup>11</sup>

Based on a predictive reproductive financial model, an estimate of return on investment (ROI) suggests a 2.4:1 favor\* of adding 2 mL of Factrel in the Double-Ovsynch regimen.<sup>11</sup>

**IMPORTANT SAFETY INFORMATION FOR FACTREL:** Factrel is for use in cattle only. See full Prescribing Information.

To learn more about Lutalyse® HighCon and Factrel as an on-label synchronization program, contact your veterinarian or Zoetis representative.

### **Dry Cow**

For dairy producers, the dry off period can be used to set cows up for success during their next lactation. Studies show that up to 50% of new mastitis infections occur in the dry cow period.<sup>12</sup>

A comprehensive dry cow program includes three steps: treat, seal and protect. Treat with Spectramast® DC (*ceftiofur hydrochloride*) Sterile Suspension, seal with Orbeseal® and protect with Enviracor® J-5, as an aid in the control of clinical signs associated with *E. coli* mastitis.

#### Orbeseal®

- Orbeseal is an inert nonantibiotic internal teat sealant.
- The only internal teat sealant with 17 years of proven on-farm results.
- Helps seal out environmental mastitis-causing pathogens from entering the teat canal by mimicking a cow's natural first line of defense, its keratin plug.
- Using Orbeseal with Spectramast DC has been demonstrated to boost profits by approximately \$21 per cow compared with using another dry cow tube.<sup>13-17</sup>

Refer to the Orbeseal label for complete instructions on proper administration at dry off and removal at freshening.

For more information, visit www.orbeseal.com

**IMPORTANT SAFETY INFORMATION:** People with known hypersensitivity to penicillin or cephalosporins should avoid exposure to Spectramast DC. Product requires a 30-day dry cow period, and has a 16-day pre-slaughter withdrawal period following last treatment. Use of this product in a manner other than indicated on the label, or failure to adhere to the proper milk discard period, will result in violative residues. See full Prescribing Information, here.

Residue Free Guarantee: If you use a Zoetis-branded ceftiofur product according to label directions, and experience a violative ceftiofur milk or meat residue, Zoetis will compensate you for the beef market value of the animal or purchase the tanker of milk at fair market value. To qualify, you must purchase the product from a Zoetis-approved supplier, use the product according to label directions, and provide documentation of the product purchase and treatment records. Extra-label use as prescribed by a veterinarian is excluded from the Guarantee. If you experience a ceftiofur residue violation after following label directions and the above steps, contact Zoetis Veterinary Medical Information and Product Support (VMIPS) at 800-366-5288 to report the situation.





















- \*The ROI calculation is based on commercial prices for the reproductive hormones. The total breeding costs and cost per pregnancy were lower when giving the extra dose of Factrel. Although hormone costs for first service were higher with 4 mL of Factrel, there were savings in the overall breeding cost and more pregnancies created with the higher dose of Factrel for multiparous cows.
- <sup>1</sup> Data on file, Study Report No. B835R-US-15-419, Zoetis Inc.
- <sup>2</sup> Animalytics Segment Data, Respiratory Biologicals, January to December 2021 when compared to all cattle vaccines from Zoetis and competitors.
- <sup>3</sup> Cortese VS, Woolums, A, Hurley DJ, et al. Comparison of interferon and bovine herpesvirus-1-specific IgA levels in nasal secretions of dairy cattle administered an intranasal modified live viral vaccine prior to calving or on the day of calving. *Vet Immunol Immunopathol.* 2017;187:35-41.
- <sup>4</sup> Data on file, Study Report No. 0738-B-US-1-98, Zoetis Inc.
- <sup>5</sup> Cleale RM, Bechtol DT, Drouillard JS, et al. Synovex Plus Implants Coated With a Polymeric, Porous Film Improve Performance of Beef Steers and Heifers Fed in Confinement for Up to 200 Days. J Anim Sci. 2012;90(13):5056-5066.
- <sup>6</sup> Data on file, Study Report No. A131C-US-19-741, Zoetis Inc.
- Data on file, Study Report Nos. 2239A-60-00-029, 2239A-60-00-030, 2239A-60-00-033, 2239A-60-94-003, 2239A-60-94-007, 2239A-60-94-067, 2239A-60-94-068, 2239A-60-94-070, 2239A-60-95-156 and 2839A-60-97-123, Zoetis Inc.
- Based on comparison of approved labels for Valbazen Suspension, Safe-guard Suspension and Synanthic Suspension.
- $^9$ Myers MJ, Howard KD, Kawalek JC. Pharmacokinetic comparison of six anthelmintics in sheep, goats, and cattle.  $\it J$  Vet Pharmacol Therap. 2021;44:58–67.
- <sup>10</sup> Data on file, Study Report No. 1930C-60-11-912, Zoetis Inc.
- <sup>11</sup> Data on file, Study Report No. 20CRGREP-02-01, Zoetis Inc.
- <sup>12</sup> Todhunter DA, Smith KL, Hogan JS. Environmental Streptococcal Intramammary Infections of the Bovine Mammary Gland. J Dairy Sci. 1995;78(11):2366-2374.
- $^{\rm 13}$  Data on file, Study Report No. 11PETSDC01, Zoetis Inc.
- <sup>14</sup> Data on file, Study Report No. 11PETSDC03, Zoetis Inc.
- <sup>15</sup> Data on file, Study Report No. 11PETSDC04, Zoetis Inc.
- <sup>16</sup> Data on file, Study Report No. 11PETSDC02, Zoetis Inc.
- <sup>17</sup> Data on file, meta-analysis of Study Report Nos. 11PETSDC01, 11PETSDC03 and 11PETSDC04, Zoetis Inc.

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