Two-pronged approach to keep cows productive

By Dr. Todd Bilby
Dairy Technical Services Manager, Merck Animal Health

Nearly 15 years of peer-reviewed science has repeatedly shown the Vista® vaccine line provides protection against infection from bovine respiratory disease (BVD) deeper into pregnancy than other vaccines.¹ By providing this line of defense early, when animals are ready for breeding, they experience higher conception rates, fewer lost pregnancies and healthier calves.

Vista is the only BVD Type 1 and Type 2 vaccine that has been approved for the claim: “aids in the prevention of fetal infection, including persistently infected calves.” A study concluded that vaccinating heifers pre-breeding with a minimum protective dose of Vista 5 SQ not only produced a measurable, protective immune response post-vaccination, but also reduced the risk of infection to the gestating fetus.²

The result: As shown in graph 1, calves born from dams vaccinated with Vista are protected from BVD when they hit the ground.

Timed breeding for better pregnancy rates

The ability to freshen cows on time and shorten calving intervals helps keep animals in the milking string and profitable. Shorter calving intervals increase the number of peak lactations for a cow, resulting in higher lifetime production.

Fertagyl® (gonadorelin) and Estrumate® (cloprostenol sodium) help simplify fertility. Fertagyl, which triggers ovulation, is labeled for use with Estrumate to synchronize estrous cycles in lactating dairy cows.

At the 2018 American Dairy Science Association meeting, researchers presented results of a study designed to evaluate GnRH products to determine if they have comparable ovulation and pregnancy rates per service when used in a synchronization program. As shown on graphs 2 and 3, results found the ovulation and pregnancy rate of Fertagyl was comparable to Cystorelin® and much higher than Factrel®.³

A healthy, productive herd

Getting and keeping cows pregnant are keys to the success of the dairy farm. Following this two-pronged protocol protects animals from reproductive challenges and shortens calving intervals to boost productivity.

References:
2. Effect of Vista® 5 SQ Ovine Pre-Breeding for Protection from BVD Type 1 and Type 2 Fetal Infection. BV/UST-41409-BRSV-EFF 12/10.

Tough economic times require you to analyze every cost. Herd health protocols are tools that can help protect productivity and profits. The following two-pronged approach, developed by Merck Animal Health, can help you improve pregnancy rates and keep animals healthy.

---

Percent of fetuses demonstrating serum neutralization titers to BVD Type 1 and Type 2.²

Proportion of cows ovulating to the first GnRH of the breeding Ovsynch.³

Pregnancy rate per AI at 60 days.³
**FERTAGYL®**

**CONTRAINDICATIONS:**
- It is contraindicated in pregnant animals. This product may cause abortion in pregnant cows.
- It is contraindicated in animals with a history of hypersensitivity to gonadorelin or any of its ingredients.
- It is contraindicated in animals treated within 56 days of delivery for mammary gland health.

**WARNINGS:**
- This product is for use only in ruminants. It is not recommended for use in other species.
- This product is intended for use in cattle only. Its use in other species may result in adverse effects.

**ADDITIONAL INFORMATION:**
- This product is approved by the U.S. Food and Drug Administration (FDA) for use in cattle.
- It is marketed under the trade name FERTAGYL® in the United States.

**STORAGE:**
- Store at controlled room temperature 59°-86° F. (15°-30° C).
- Keep refrigerated: 2°-8° C (36°-46°F).

**DISCLAIMER:**
- The information provided in this document is for educational purposes only and is not intended to replace professional medical advice.
- Always consult a qualified veterinarian for the most accurate and up-to-date information.

---

**Pharmacology and Therapeutics:**
- Gonadorelin is a decapeptide composed of the sequence of amino acids –
- 
- With a molecular weight of 1182.32 and empirical formula C55H75N17O13.

**Presentation:**
- FERTAGYL is a sterile solution containing 43 mcg gonadorelin (gonadotropin-releasing hormone; GNRH; as gonadorelin acetate) per milliliter suitable for intramuscular or intravenous administration according to the indication.

**DOSAGE AND ADMINISTRATION:**
- The recommended intramuscular dosage of FERTAGYL is 86 mcg gonadorelin (2 mL) per cow.

**SAFETY AND TOXICITY:**
- In animals treated with gonadorelin, there were no side effects observed that were attributed to the drug.
- No untoward effects were noted among rats or dogs when doses of 150 mcg/kg were administered intravenously.

**PHARMACODYNAMICS:**
- FERTAGYL initiates release of endogenous Lh to cause ovulation and luteinization.

**BENEFITS:**
- It is used to regulate estrus cycles, manage pregnancy, and control breeding in cattle.

**CONTRAINDICATIONS:**
- It is contraindicated in pregnant animals. This product may cause abortion in pregnant cows.
- It is contraindicated in animals with a history of hypersensitivity to gonadorelin or any of its ingredients.
- It is contraindicated in animals treated within 56 days of delivery for mammary gland health.

**WARNINGS:**
- This product is for use only in ruminants. It is not recommended for use in other species.
- This product is intended for use in cattle only. Its use in other species may result in adverse effects.

**ADDITIONAL INFORMATION:**
- This product is approved by the U.S. Food and Drug Administration (FDA) for use in cattle.
- It is marketed under the trade name FERTAGYL® in the United States.

**STORAGE:**
- Store at controlled room temperature 59°-86° F. (15°-30° C).
- Keep refrigerated: 2°-8° C (36°-46°F).

**DISCLAIMER:**
- The information provided in this document is for educational purposes only and is not intended to replace professional medical advice.
- Always consult a qualified veterinarian for the most accurate and up-to-date information.

---

**Pharmacology and Therapeutics:**
- Gonadorelin is a decapeptide composed of the sequence of amino acids –
- 
- With a molecular weight of 1182.32 and empirical formula C55H75N17O13.

**Presentation:**
- FERTAGYL is a sterile solution containing 43 mcg gonadorelin (gonadotropin-releasing hormone; GNRH; as gonadorelin acetate) per milliliter suitable for intramuscular or intravenous administration according to the indication.

**DOSAGE AND ADMINISTRATION:**
- The recommended intramuscular dosage of FERTAGYL is 86 mcg gonadorelin (2 mL) per cow.

**SAFETY AND TOXICITY:**
- In animals treated with gonadorelin, there were no side effects observed that were attributed to the drug.
- No untoward effects were noted among rats or dogs when doses of 150 mcg/kg were administered intravenously.

**PHARMACODYNAMICS:**
- FERTAGYL initiates release of endogenous Lh to cause ovulation and luteinization.

**BENEFITS:**
- It is used to regulate estrus cycles, manage pregnancy, and control breeding in cattle.

**CONTRAINDICATIONS:**
- It is contraindicated in pregnant animals. This product may cause abortion in pregnant cows.
- It is contraindicated in animals with a history of hypersensitivity to gonadorelin or any of its ingredients.
- It is contraindicated in animals treated within 56 days of delivery for mammary gland health.

**WARNINGS:**
- This product is for use only in ruminants. It is not recommended for use in other species.
- This product is intended for use in cattle only. Its use in other species may result in adverse effects.

**ADDITIONAL INFORMATION:**
- This product is approved by the U.S. Food and Drug Administration (FDA) for use in cattle.
- It is marketed under the trade name FERTAGYL® in the United States.

**STORAGE:**
- Store at controlled room temperature 59°-86° F. (15°-30° C).
- Keep refrigerated: 2°-8° C (36°-46°F).

**DISCLAIMER:**
- The information provided in this document is for educational purposes only and is not intended to replace professional medical advice.
- Always consult a qualified veterinarian for the most accurate and up-to-date information.

---

**Pharmacology and Therapeutics:**
- Gonadorelin is a decapeptide composed of the sequence of amino acids –
- 
- With a molecular weight of 1182.32 and empirical formula C55H75N17O13.

**Presentation:**
- FERTAGYL is a sterile solution containing 43 mcg gonadorelin (gonadotropin-releasing hormone; GNRH; as gonadorelin acetate) per milliliter suitable for intramuscular or intravenous administration according to the indication.

**DOSAGE AND ADMINISTRATION:**
- The recommended intramuscular dosage of FERTAGYL is 86 mcg gonadorelin (2 mL) per cow.

**SAFETY AND TOXICITY:**
- In animals treated with gonadorelin, there were no side effects observed that were attributed to the drug.
- No untoward effects were noted among rats or dogs when doses of 150 mcg/kg were administered intravenously.

**PHARMACODYNAMICS:**
- FERTAGYL initiates release of endogenous Lh to cause ovulation and luteinization.

**BENEFITS:**
- It is used to regulate estrus cycles, manage pregnancy, and control breeding in cattle.

**CONTRAINDICATIONS:**
- It is contraindicated in pregnant animals. This product may cause abortion in pregnant cows.
- It is contraindicated in animals with a history of hypersensitivity to gonadorelin or any of its ingredients.
- It is contraindicated in animals treated within 56 days of delivery for mammary gland health.

**WARNINGS:**
- This product is for use only in ruminants. It is not recommended for use in other species.
- This product is intended for use in cattle only. Its use in other species may result in adverse effects.

**ADDITIONAL INFORMATION:**
- This product is approved by the U.S. Food and Drug Administration (FDA) for use in cattle.
- It is marketed under the trade name FERTAGYL® in the United States.

**STORAGE:**
- Store at controlled room temperature 59°-86° F. (15°-30° C).
- Keep refrigerated: 2°-8° C (36°-46°F).

**DISCLAIMER:**
- The information provided in this document is for educational purposes only and is not intended to replace professional medical advice.
- Always consult a qualified veterinarian for the most accurate and up-to-date information.

---

**Pharmacology and Therapeutics:**
- Gonadorelin is a decapeptide composed of the sequence of amino acids –
- 
- With a molecular weight of 1182.32 and empirical formula C55H75N17O13.

**Presentation:**
- FERTAGYL is a sterile solution containing 43 mcg gonadorelin (gonadotropin-releasing hormone; GNRH; as gonadorelin acetate) per milliliter suitable for intramuscular or intravenous administration according to the indication.

**DOSAGE AND ADMINISTRATION:**
- The recommended intramuscular dosage of FERTAGYL is 86 mcg gonadorelin (2 mL) per cow.

**SAFETY AND TOXICITY:**
- In animals treated with gonadorelin, there were no side effects observed that were attributed to the drug.
- No untoward effects were noted among rats or dogs when doses of 150 mcg/kg were administered intravenously.

**PHARMACODYNAMICS:**
- FERTAGYL initiates release of endogenous Lh to cause ovulation and luteinization.

**BENEFITS:**
- It is used to regulate estrus cycles, manage pregnancy, and control breeding in cattle.

**CONTRAINDICATIONS:**
- It is contraindicated in pregnant animals. This product may cause abortion in pregnant cows.
- It is contraindicated in animals with a history of hypersensitivity to gonadorelin or any of its ingredients.
- It is contraindicated in animals treated within 56 days of delivery for mammary gland health.

**WARNINGS:**
- This product is for use only in ruminants. It is not recommended for use in other species.
- This product is intended for use in cattle only. Its use in other species may result in adverse effects.

**ADDITIONAL INFORMATION:**
- This product is approved by the U.S. Food and Drug Administration (FDA) for use in cattle.
- It is marketed under the trade name FERTAGYL® in the United States.

**STORAGE:**
- Store at controlled room temperature 59°-86° F. (15°-30° C).
- Keep refrigerated: 2°-8° C (36°-46°F).

**DISCLAIMER:**
- The information provided in this document is for educational purposes only and is not intended to replace professional medical advice.
- Always consult a qualified veterinarian for the most accurate and up-to-date information.