

Elanco

**Titanium**<sup>®</sup>

™



*Easy on Cattle.\**  
*Easy on Your Bottom Line.*

**TITANIUM<sup>®</sup> VACCINES ARE TOUGH ON RESPIRATORY  
AND REPRODUCTIVE DISEASE PATHOGENS BUT EASY  
ON YOUR CATTLE.\***



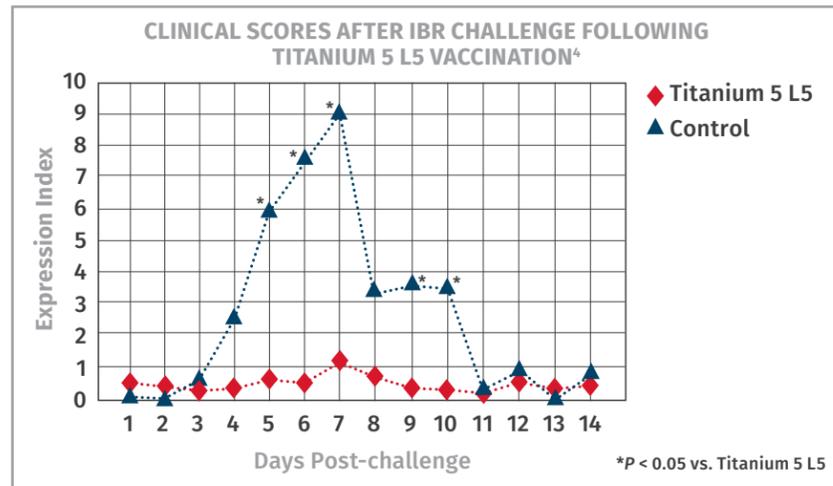
## Give a Dose of Confidence.

- Titanium® vaccines have provided bovine respiratory disease (BRD) protection to millions of cattle on operations just like yours
- More than 200 million doses have been used in the last 30 years<sup>1</sup>

## Prevention You Can Count On.

- Proven protection against BVDV type 1b and type 2<sup>2</sup>
- Strong IBR immunity during a 110-day challenge following Titanium 5 L5 vaccination (Chart 1)<sup>2</sup>
- Rapid and long-lasting cell-mediated immunity plus humoral immunity<sup>3</sup>
- Optimal antigen content in every dose for enhanced rapid and extended duration of immunity<sup>4</sup>
- Protection against important *Leptospira* spp., including serovar Hardjo-bovis

CHART 1.



## Tough on Viruses. Easy on Cattle.

- No significant effect on feed intake (Table 1)<sup>5</sup>
- No significant effect on milk production (Chart 2)<sup>6</sup>
- No post-vaccinal stress as measured by body temperature (Chart 3), injection-site reactions or white blood cell count<sup>2</sup>
- Safe for use in nursing calves and pregnant cows, provided the animals were vaccinated according to label directions with Titanium 3, 4 L5, 5 or 5 L5 HB



TABLE 1.

IMPACT OF TITANIUM 5 ON MEAN DRY MATTER INTAKE (LBS) <sup>5</sup>		
Days post-vaccination	Titanium 5 group	Control (saline solution) group
Days 1 to 4	26.8 <sup>a</sup>	26.1 <sup>a</sup>
Days 1 to 5	26.9 <sup>a</sup>	26.3 <sup>a</sup>
Days 1 to 10	26.6 <sup>a</sup>	26.4 <sup>a</sup>
Days 1 to 29	27.0 <sup>a</sup>	26.9 <sup>a</sup>

<sup>a</sup>Different superscripts within a row indicate statistical significance (P < 0.05).

CHART 2.

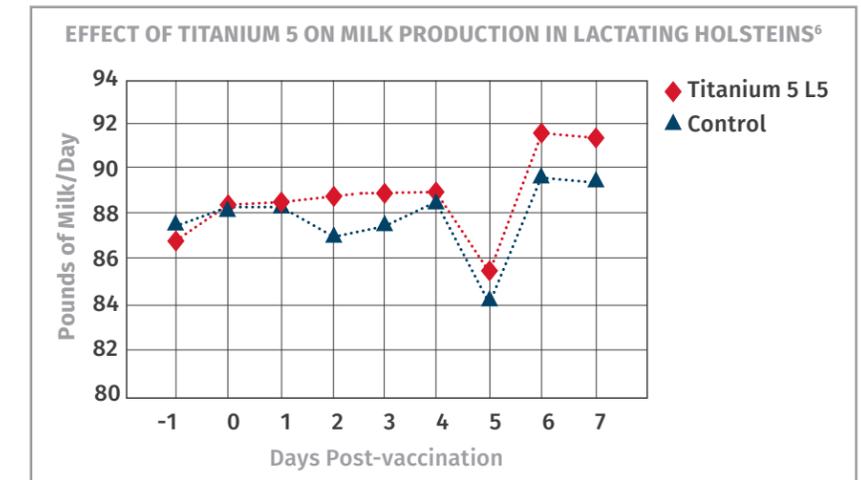
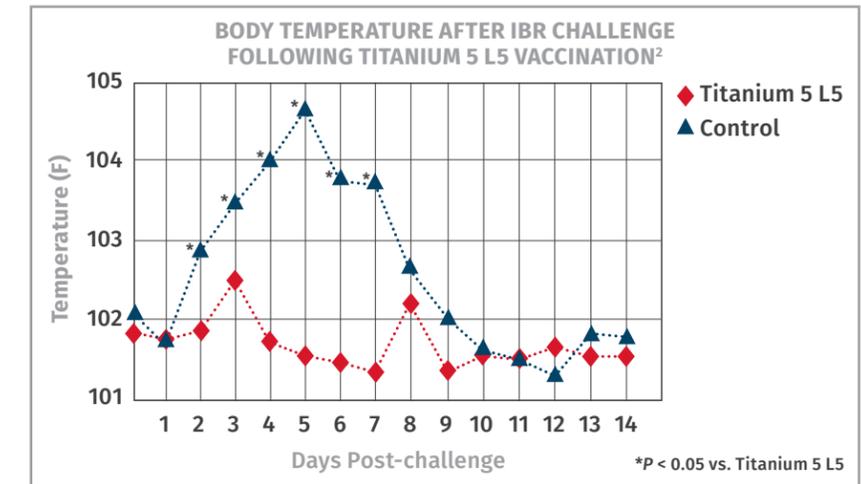


CHART 3.



# Powerful Combinations at a Great Price.

**CHOOSE THE SPECIFIC OPTION TO PROVIDE PROTECTION AGAINST THE RESPIRATORY AND REPRODUCTIVE VIRUSES YOU FACE ON YOUR OPERATION.**

TABLE 2.

COMBINATION	TITANIUM® VACCINE COMBINATIONS										
	MLV					Killed					
VACCINE (2 mL dose)	BVD TYPE 1	BVD TYPE 2	IBR	PI <sub>3</sub>	BRSV	<i>L. grippotyphosa</i>	<i>L. canicola</i>	<i>L. icterohaemorrhagiae</i>	<i>L. hardjo</i>	<i>L. pomona</i>	<i>L. hardjo-bovis</i>
<b>Titanium 5 L5 HB</b> 10 dose/50 dose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Titanium 5</b> 10 dose/50 dose	✓	✓	✓	✓	✓						
<b>Titanium 4 L5</b> 50 dose	✓	✓	✓	✓		✓	✓	✓	✓	✓	
<b>Titanium 3 LP</b> 50 dose	✓	✓	✓							✓	
<b>Titanium 3</b> 10 dose/50 dose	✓	✓	✓								
<b>Titanium BRSV 3</b> 50 dose			✓	✓	✓						
<b>Titanium IBR LP</b> 50 dose			✓							✓	
<b>Titanium IBR</b> 10 dose/50 dose			✓								

## Dedicated to Getting the Job Done.

**THE RIGHT PRODUCT, THE RIGHT PROTECTION, THE RIGHT TIME.  
MAKE THE RIGHT CHOICE FOR YOUR CATTLE.**

If you're not satisfied with Titanium, we will refund the cost of your purchase.\*\*  
That's The Elanco Cattle Vaccine Promise™.

**Talk to your Elanco representative about the benefits of Titanium. Work with your consulting veterinarian to incorporate it into your vaccination protocol.**

**The label contains complete use information, including cautions and warnings. Always read, understand and follow the label and use directions.**

\*As measured by body temperature, feed intake, injection-site reaction or white blood cell count.  
\*\*See The Elanco Cattle Vaccine Promise Terms and Conditions for complete details.

<sup>1</sup>Elanco Animal Health. Data on file.  
<sup>2</sup>Elanco Animal Health. Data on file.  
<sup>3</sup>Elanco Animal Health. Data on file.  
<sup>4</sup>Elanco Animal Health. Data on file.  
<sup>5</sup>Elanco Animal Health. Data on file.  
<sup>6</sup>Elanco Animal Health. Data on file.

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