



INFORCE™ 3

GIVE YOUNG CALVES AND FRESH COWS A HEALTHY START.

PROTECT THEM BOTH WITH INFORCE™ 3.

Research shows INFORCE™ 3 can provide lasting protection against key viral respiratory diseases for young calves¹ and boost cow immunity in the face of calving stress.²

THE LEADING VACCINE ON THE MARKET,³ INFORCE 3:

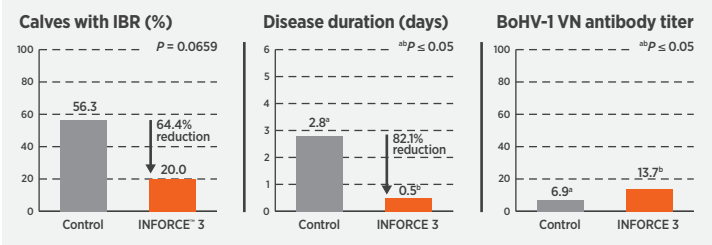
- Offers the highest level of protection available against BRSV
- Provides lasting protection against IBR respiratory disease
- Aids in the prevention of parainfluenza 3
- Is now approved for single-nostril administration

GET CALVES OFF TO A HEALTHY START, EVEN IN THE PRESENCE OF MATERNAL ANTIBODIES.

In a separate study, INFORCE 3 was administered to colostrum-deprived neonatal calves and to calves with maternal antibodies against the virus that causes infectious bovine rhinotracheitis (IBR). After challenge, compared with unvaccinated calves, those given INFORCE 3 demonstrated:¹

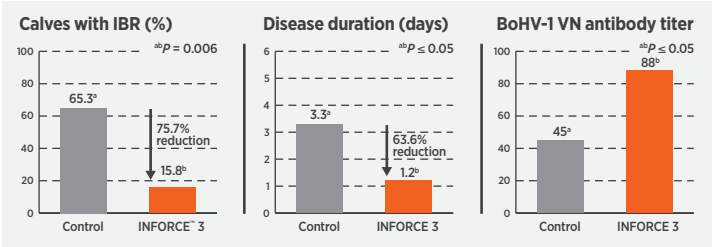
- A marked reduction in the incidence of IBR respiratory disease
- Significantly higher ($P \leq 0.05$) IBR virus neutralizing antibody titers
- Significantly shorter ($P \leq 0.05$) disease duration
- Less nasal shedding of IBR virus

Results 105 Days Post-Vaccination Challenge of IBR Seropositive Calves

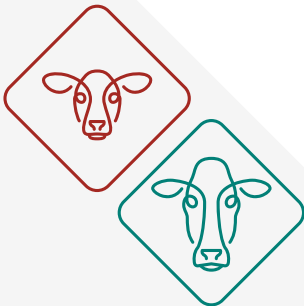


Even in the presence of maternal antibodies, INFORCE 3 generated a protective response that lasted at least 15 weeks after vaccination.

Results 193 Days Post-Vaccination Challenge of Colostrum-Deprived Calves



Colostrum-deprived, IBR naïve calves vaccinated with INFORCE 3 were protected against IBR respiratory disease for at least six months after vaccination.



PROVIDE EFFECTIVE PROTECTION, WHEN COWS NEED IT MOST.

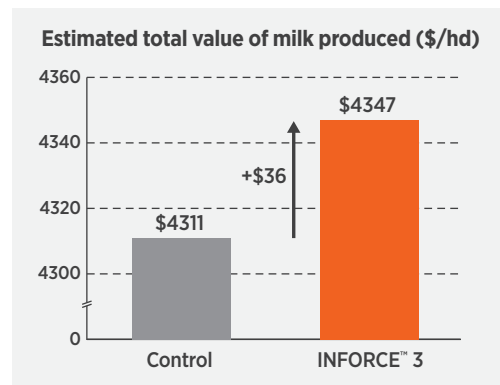
On the day of calving, dairy cows are immunosuppressed and at their most disease-vulnerable state. In one study, cows vaccinated with INFORCE™ 3 on the day of calving demonstrated equivalent or greater innate and adaptive local immune responses than those vaccinated up to 12 days before calving.²

Another study compared cattle that were not vaccinated against bovine respiratory syncytial virus (BRSV) with those that received INFORCE 3.⁴

Those that received INFORCE 3:

- Produced approximately 205 pounds more milk per head
- Estimated \$36 more milk production revenue per head

Value of Milk Production Over a 315-Day Period



Fresh cows vaccinated with INFORCE 3 generated an additional estimated \$36 per head in income versus those not vaccinated against BRSV.



Get young calves and fresh cows off to a healthy start, even in the face of maternal antibodies and calving stress, with INFORCE 3.

FOR MORE INFORMATION, CONTACT YOUR ZOETIS ANIMAL HEALTH REPRESENTATIVE.

¹ Mahan SM, Sobecki B, Johnson J, et al. Efficacy of intranasal vaccination with a multivalent vaccine containing temperature-sensitive modified-live bovine herpesvirus type 1 for protection of seronegative and seropositive calves against respiratory disease. *J Am Vet Med Assoc.* 2016;248(11):1280-1286.

² Cortese V, Woolums A, Hurley D, Bernard J, Berghaus R, Short T. Comparison of interferon and BoHV1 IgA levels in nasal secretions of dairy cattle vaccinated with Inforce 3 prior to calving or on day of calving, in *Proceedings, 29th World Buiatrics Congress 2016*;436.

³ Animalytix® data, September 2016, Zoetis Inc.

⁴ Data on file, Study Report No. 10PETINF01, Zoetis Inc.



Our goal is to help you achieve all of yours. On your operation, every outcome — from improved reproduction to quality milk — affects your success. And we'll be there to help you develop programs and solutions to improve those outcomes. Because that's how, together, we'll achieve Dairy Wellness.

DAIRY WELLNESS MAKES A DIFFERENCE™

zoetis