

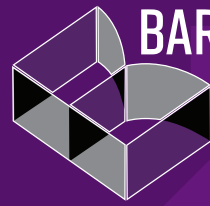


Nursery Solutions



FULLVALUE
PORK™

A portfolio of potential



BARRICADE

THE BARRICADE® PLATFORM ADVANTAGE

1
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3

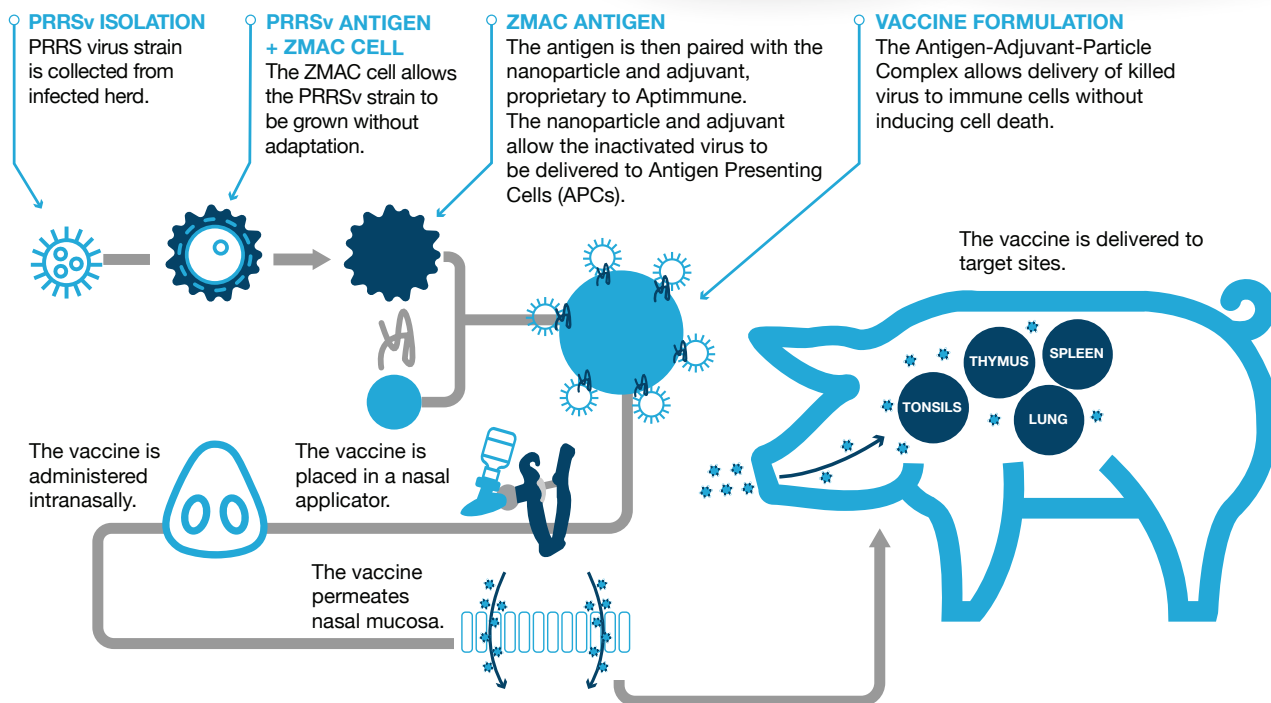
The Barricade® Platform supports a customizable killed autogenous PRRS vaccine.

Offering a positive return on investment in the face of a PRRS challenge, an autogenous PRRS vaccine complements Prevacent® PRRS biological, productive and economic benefits.

The Barricade Platform offers a unique intranasal administration route for the protection of the respiratory mucosa.



HOW IT WORKS¹



¹Aptimmune Biologics. Mucosal vaccines. Available at: <http://aptimmune.com/mucosal/>. Accessed March 27, 2023.

Elanco

Baseline

SET YOUR BASELINE™



1
2
3

Baseline™ supports the ability of sows and pigs to better manage inflammation that can lead to high sow, pre-wean and wean-to-finish mortality, high wean-to-estrus intervals and higher variability in production.¹

Baseline is a feed ingredient that acts as a tool to help sows and pigs to handle inflammation. Inflammatory responses are identified by a biomarker discovered by Elanco. By utilizing this biomarker, diagnosticians can predict stress responses in herds that affect livability and performance.

Understanding the potential cost of inflammation in production systems by utilizing the inflammation biomarker, and including Baseline in the diet, can improve wean weights of piglets, improving economic return.¹

¹Elanco Animal Health. Data on File.

Injectable **Baytril® 100**
(enrofloxacin)

THE RELIABLE SRD SOLUTION

1 Respiratory disease occurrence and severity is affected by factors such as weaning, handling, temperature and ventilation.¹ Baytril® 100 helps manage swine respiratory disease (SRD) and *Escherichia coli* challenges that can be exacerbated by environmental stressors, allowing producers to optimize Full Value from start to finish.

2 Baytril is highly bioavailable, reaching the lungs quickly for effective treatment. Baytril's active ingredient, enrofloxacin, binds to DNA gyrase making it bactericidal and concentration-dependent, which differentiates it from cephalosporins and macrolides.

3 Early SRD intervention is critical to assure good nursery pig health and to support the subsequent profitability in the finishing phase. Baytril treats and controls six SRD pathogens that are commonly part of the nursery SRD complex.



Fights against **6 SRD pathogens**



Effective **bactericidal** mode of action



1 dose treatment

¹Brockmeier SL, Halbur PG, Thacker EL. Porcine Respiratory Disease Complex. Polymicrobial Diseases. Washington (DC): ASM Press: 2002. Chapter 13. Accessed January 2021.

cellu**TEIN**
PURETEIN™

SUPPORT IMMUNITY, SUPPORT GROWTH



1 A feed supplement developed with proprietary bioactive protein compounds, celluTEIN™ stimulates the mTOR pathway, which is responsible for protein synthesis and muscle cell hypertrophy reactions in pigs.¹

2 Through mTOR pathway stimulation and increased physiological support, celluTEIN supports immunity benefits, which may lead to better feed efficiency and growth rates in nursery pigs.¹

3 Early immune support is foundational in the health of pigs and can strengthen their value through the grow-finishing period. One study found that feeding celluTEIN through the grow-finishing period showed increases in growth performance.²

¹Elanco Animal Health. Data on File.
²Elanco Animal Health. Data on File.



RELIABLE ENTERIC DISEASE TREATMENT

1

Denagard® 10 Premix effectively controls swine dysentery (SD) associated with *Brachyspira hyodysenteriae*, a highly contagious, difficult-to-control and slow immunity-generating disease¹, and ileitis associated with *Lawsonia intracellularis*, a leading enteric disease in the U.S.

2

Denagard and chlortetracycline (CTC) control SD associated with *B. hyodysenteriae* susceptible to tiamulin, and treat swine bacterial enteritis caused by *Escherichia coli* and *Salmonella Choleraesuis* sensitive to chlortetracycline and bacterial pneumonia caused by *Pasteurella multocida* sensitive to CTC.

3

With both SD and ileitis, impacts on growth can be significant. In addition to treatment costs and mortality, reductions in growth and average daily gain (ADG) can lead to production losses. Mitigate these disease challenges with whole-herd treatment through pulse dosing or continuous medication.



DENAGARD® + CTC TRIAL RESULTS²

Study: Effects of different antibiotic feeding programs

A commercial population of approximately 1,150 growing pigs averaging approximately 75 lbs. with a known history of swine pneumonia and bacterial enteritis was used to understand the effects of different antibiotic programs. Confirmation of the disease-causing bacterial agents (*P. multocida*, *E. coli* and *Salmonella Choleraesuis*) was determined using laboratory diagnostics.

STUDY DESIGN

9-WEEK-OLD PIGS averaging approximately 75 lbs. were placed and acclimated in the barn for **7 DAYS**

| TOTAL | PIGS | PENS | REPLICATES |
|-------|--|---------------------------------|----------------------------|
| | 1,150 (approximately 25 per pen) | 46 single-gender pens | 23 per treatment |

Weights were recorded on **DAYS 0, 7, 21, 49, 61, 89** and at the time of marketing

| DATA COLLECTED | |
|--|---|
| Live weight, average daily gain (ADG), average daily feed intake (ADFI), feed to gain (calculated) and gain to feed (calculated) | Live weight, hot carcass weight (HCW) and carcass yield |
| BY PEN | BY TREATMENT |

Treatment groups

Treatment 1 = Negative Control
Treatment 2 = Denagard 35 g/ton + 400 g/ton CTC from days 7 to 20 and days 49 to 62

Disease incidence from Day 0 to study end

| | DIETARY TREATMENT | | | |
|---|--------------------|--------------------|--------|---------|
| | Control | Denagard + CTC | S.E.M. | P-value |
| No. of pens | 23 | 23 | — | — |
| Dry cough (no. observations/pen) | 32.09 | 29.26 | 1.753 | 0.10 |
| Diarrhea (no. observations/pen) | 0.83 | 0.39 | 0.172 | 0.08 |
| Lameness (no. observations/pen) | 74.43 ^x | 63.04 ^y | 5.378 | <0.0001 |
| Respiratory | 0.83 | 0.65 | 0.179 | 0.50 |
| Diarrhea | 0.13 ^x | 0.00 ^y | 0.003 | <0.001 |

Because of the lowered disease incidence, performance was improved and additional antibiotic intervention in pens treated with Denagard + CTC was avoided.

Pens treated with Denagard + CTC performed better overall than the control group:

| | Denagard + CTC | Control | Improvement | P-value |
|-----------------------|----------------|----------|-------------|---------|
| Heavier final weights | 314.3 lb | 310.8 lb | 3.50 lb | 0.02 |
| Better ADG | 2.24 lb | 2.21 lb | 0.03 lb | 0.01 |
| Improved ADFI | 6.30 lb | 6.18 lb | 0.12 lb | 0.005 |
| Heavier HCW | 239 lb | 236.7 lb | 2.30 lb | 0.05 |

¹Brockhoff E. In: 2012 AASV Annual Meeting: Integrating Science, Welfare, and Economics in Practice. 2012; 439-42.
²Elanco Animal Health. Data on File.

Elanco

Denagard[®]

LC

REDUCE THE IMPACT OF COSTLY DISEASES



Denagard[™] 12.5%
(tiamulin hydrogen fumarate)

12.5% Tiamulin hydrogen fumarate
Approved by FDA under NADA # 140-916
One Liter (1.057 Quarts)
(33.8 fl oz; 1000 mL)

Warning: Keep out of reach of children. Avoid direct contact with the skin. Do not ingest.

Residue Warnings: Withdraw medicated water 3 days before slaughter after treatment. Withdraw meat after treatment at 10.5 mg per pound body weight.

Active Ingredient: This bottle contains 4.33 oz (125.0 g) tiamulin hydrogen fumarate.

Caution: For use in drinking water of swine only - Not for use in humans.

Prepare fresh medicated water daily. Use as the only source of drinking water for 5 days. Performance, pregnancy and lactation have not been determined.

Contraindications: Swine being treated with Denagard (tiamulin hydrogen fumarate) should not be treated with aminoglycosides (e.g., monensin, lasalocid, narasin, salinomycin and semduramicin) or other antibiotics.

Indications: Treatment of swine dysentery associated with *Brachyspira* (formerly *Serpulina*) spp. and swine pneumonia due to *Actinobacillus pleuropneumoniae* sensu lato.

Use Directions: Do not use undiluted.

This bottle contains 125,000 mg tiamulin hydrogen fumarate for use in preparing medicated water. See package insert for complete directions; read completely.

Protect from direct sunlight. Store at controlled room temperature, 59°-77°F (15°-25°C).

Restricted Drug (California): Use only as directed.

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Product 607728

Elanco

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Elanco

Evosure[™]

SUPPORT SURVIVABILITY



Elanco[™]

Evosure[™]

TM

For Use in Swine Feeds only

For Further Manufacture of Feed

Guaranteed Analysis
Crude Protein, minimum.....15%
Crude fiber, maximum.....3.5%

Ingredients
Yeast extract, Calcium carbonate, Yeast culture, Silicon dioxide, Mineral oil

Feeding Rate
Add 1.0 to 2.0 pounds per 1 ton (2,000 lbs) of complete swine feed.

Storage
Store in a cool, dry location. Completely reseal unopened bags. Best if used within 24 months of manufacturing date.

Manufactured for
Elanco US Inc.
2500 Innovation Way
Greenfield, IN 46410
1-800-428-4441

LIMITED WARRANTY STATEMENT: The Company's sole and exclusive warranty is that the product is free from defects in materials and workmanship at the time of sale. THE COMPANY MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW. THE COMPANY DISCLAIMS ANY IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY. The Company shall not be liable for any incidental or consequential damages. To the extent consistent with applicable law, the Company's maximum liability shall be limited to the purchase price of the product.

Evosure, Elanco and the diagonal bar logo are trademarks of Elanco or its affiliates.

Net Weight
55.12 LB
(25 kg)



7 27804 00184 1

YL600344X

1

Denagard[®] LC treats swine pneumonia caused by *Actinobacillus pleuropneumoniae* (APP), a highly contagious disease often characterized by sudden onset, short clinical course, high morbidity and high mortality.¹

2

Survivors of the disease often remain carriers and exhibit chronic coughing and slow growth due to lung adhesions and abscesses that form in recovered lungs.¹

3

Adding Denagard LC to water for treatment for five consecutive days can help reduce mortality and the overall impact of APP.¹

¹Iowa State University. *Actinobacillus pleuropneumoniae* (APP). Available at: <https://vetmed.iastate.edu/vdpam/FSDV/swine/index-diseases/actinobacilluspleuropneumoniae>.

1

Evosure[®] is a novel yeast ingredient in pig diets that can balance microflora in the gut, increasing protein retention toward building muscle. Data shows that nursery pigs demonstrate higher average daily gain (ADG) and feed conversion over those on a control diet.¹ Additional trials show introducing Evosure to *E. coli*-infected pigs results in maintaining similar ADG as in non-infected pigs.²

2

Introducing Evosure early in gestation and continuing to feed through lactation and until a subsequent farrowing resulted in piglets with higher birth weight in both farrowings, compared to those from control sows.³ Additionally, piglets demonstrated a higher rate of pre-wean survivability and pre-wean weight gain.⁴

3

Feeding Evosure to gestating sows resulted in piglets demonstrating markers of increased immunity, in the form of increased levels of immunoglobulin and reduced pro-inflammatory cytokines in that offspring, compared to those from sows not fed Evosure, as well as resulting in lower pre-weaning mortality rates.⁴

¹Song R, Purser KW, Musser RE, Hagen CD. Effects of feeding increasing levels of a proprietary yeast blend on growth performance of commercial nursery pigs. *Journal of Animal Science*. Vol 92 Suppl 2, 157-158. ²Elanco Animal Health. Data on File. ³Song R, Purser KW, Musser RE, Hagen CD. Effects of feeding increasing levels of a proprietary yeast blend on sow reproductive performance over a two-parity period. *Journal of Animal Science*. Vol 93 Suppl 2, 122. ⁴Elanco Animal Health. Data on File.

Elanco

FeedAID

PRESERVE FEED QUALITY



Elanco™

Hemicell® HT

IMPROVED FEED FROM THE START



1
2
3

1 FeedAID™ preserves and prevents caking in swine feed, reducing lumps and the occurrence of fungal metabolites, which can maintain feed quality and feeding efficiency.

2 FeedAID is a unique blend of sodium metabisulfite (SMB) and a specifically selected clay that targets a wider range of feed mycotoxins.

3 Resolve poor flowing, feed variations, batching size and other feed issues that impact mill management and, ultimately, animal productivity.

1
2
3

1 Hemicell® HT is a unique and patented energy-sparing enzyme produced by the fermentation of *Paenibacillus lentus* bacteria.¹

2 Hemicell HT minimizes production and economic losses caused by feed-induced immune response (FIIR) from β-mannans.^{1,2}

3 Hemicell HT breaks down β-mannans commonly found in feed ingredients, resulting in normal immune function that saves energy for growth and performance.^{1,2,3}

¹Spurlock, M. Regulation of metabolism and growth during immune challenge: an overview of cytokine function. J. Anim. Sci. 75. 1997; 1773-1783.

²Petty, L., Carter, S., Senne, B. and Shiver, J. Effects of β-mannanase addition to corn-soybean meal diets on growth performance, carcass traits, and nutrient digestibility of weaning and growing finishing pig. J. Anim. Sci. 80. 2002; 1012-1019.

³Data on file. Elanco Animal Health..

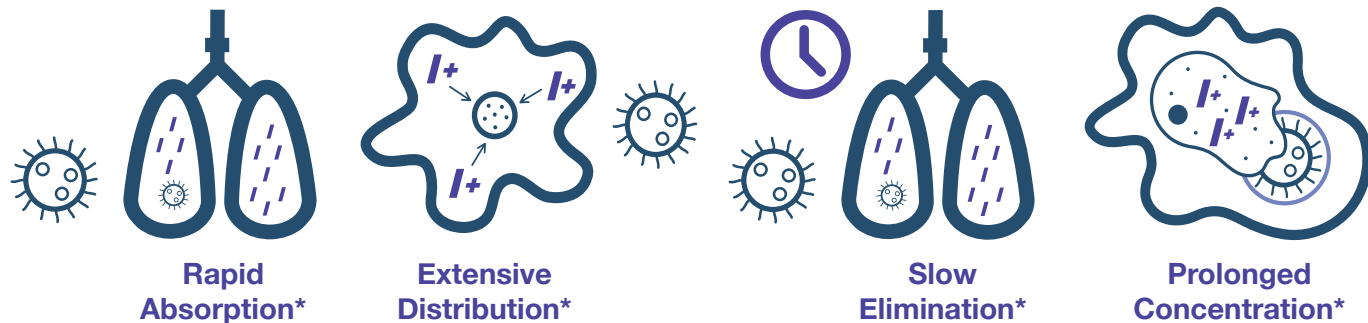


FIND YOUR BALANCE

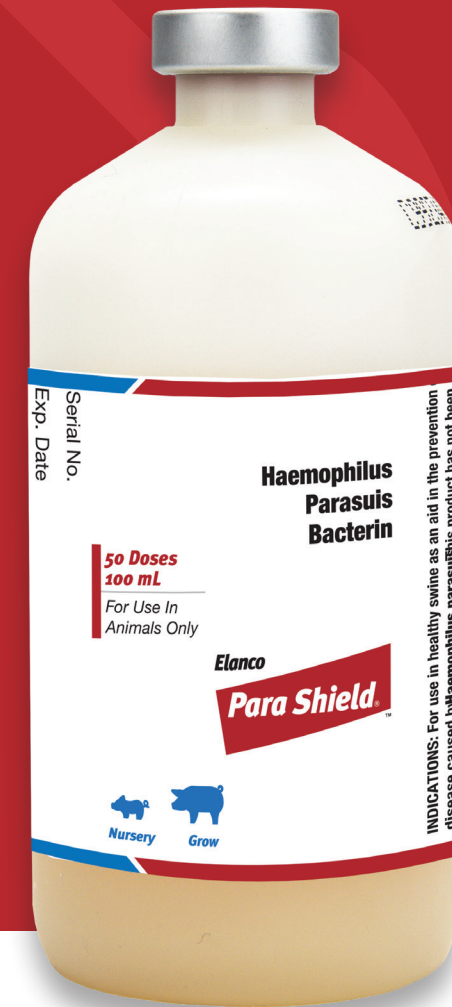
- 1 Balance whole herd health with individual pig solutions. Combat swine respiratory disease (SRD) with Increxxa™'s industry-proven molecule, tulathromycin.
- 2 A balance of speed and persistence.* By quickly targeting and rapidly circulating at the site of infection, with its long half-life, Increxxa controls SRD early in the disease process, providing pigs more time to mount an effective SRD defense.^{1,2*}
- 3 Controlling disease challenges requires a balanced approach to management practices, biosecurity and herd health choices. Including Increxxa, Elanco's SRD portfolio — supported by our industry-leading technical team and unwavering quality assurance — offers you even more choices to find the right solution for your challenge.



TULATHROMYCIN MODE OF ACTION



SAFE, PROVEN RESPIRATORY SHIELD



- 1 *Glasserella (Haemophilus) parasuis* can develop suddenly, often resulting in death in less than two days, even in visibly healthy pigs.¹ Stressors associated with weaning and the nursery environment significantly increase disease possibility.
- 2 While clinical signs can be apparent, *G. parasuis* localizes multi-focally to impact apparent clinical signs.
- 3 Disease prevention methods such as controlling primary diseases like porcine reproductive and respiratory syndrome virus (PRRSv), as well as vaccination with Para Shield® against *G. parasuis*, can help piglets during stressful periods such as weaning and commingling.

14 *Clinical relevance unknown. ¹Villarino et al. Understanding the pharmacokinetics of tulathromycin: a pulmonary perspective. J Vet Pharmacol Ther. 2014;37(3):211–21. ²O'Connor AM, Toon SC and Shane D. A systematic review and network meta-analysis of injectable antibiotic treatment options for naturally occurring swine respiratory disease. J Swine Health Prod. 2019;27(3): 133-49.

¹Iowa State University. Glasser Disease. Available at: <https://vetmed.iastate.edu/vdpam/FSVD/swine/index-diseases/glasser-disease>. Accessed on December 6, 2019

Elanco

Kavault

POST-WEANING DIARRHEA CONTROL

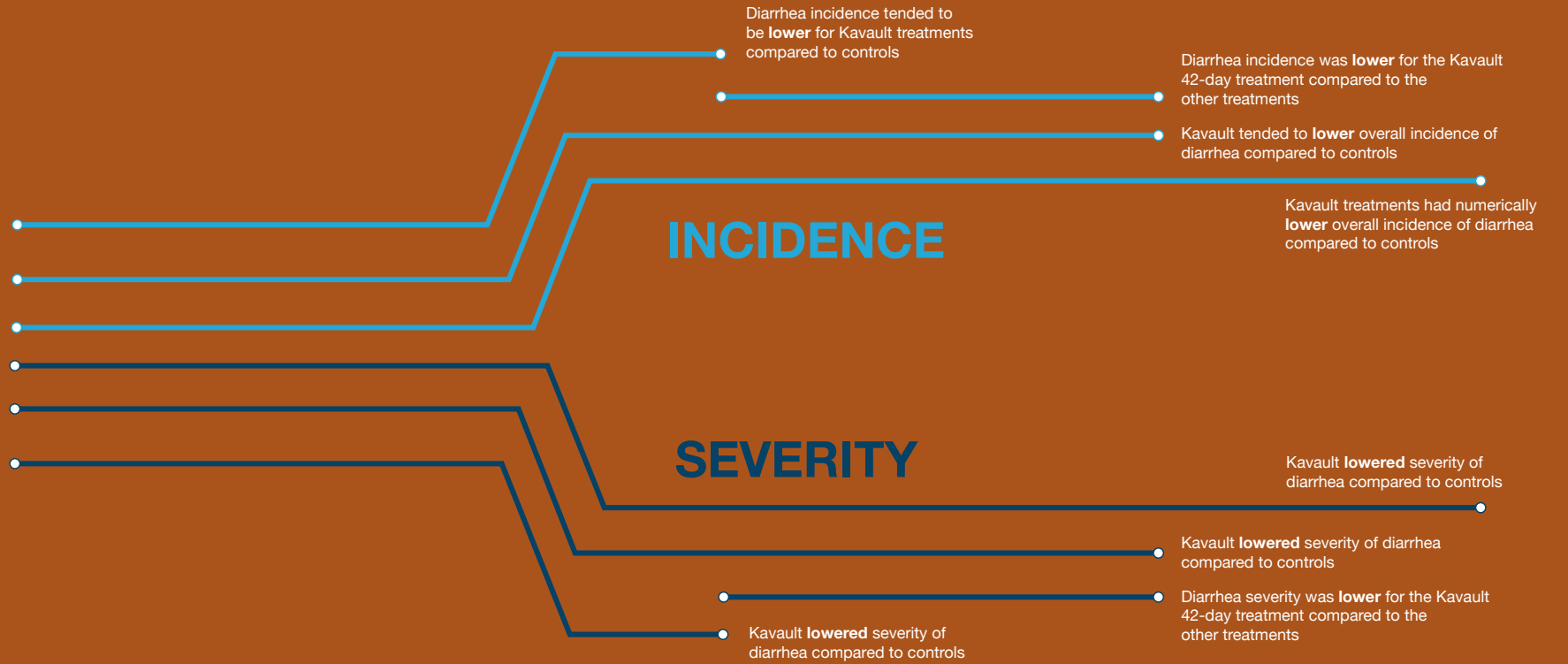


Day 0

Day 21

Day 42

Day 56



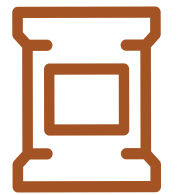
LIMITING PWD HAD THESE IMPROVEMENTS ON OVERALL PIG PERFORMANCE⁶



Numerically **INCREASED** BODY WEIGHT compared to controls



Numerically **INCREASED** AVERAGE DAILY GAIN



IMPROVED FEED CONVERSION RATE

Improving the overall gut health of weaned nursery pigs has a strong connection to growth performance and economic values.¹

INHIBIT *E. COLI* FIMBRIAE PRODUCTION. PREVENT PROFIT LOSS. PROTECT AGAINST PWD.

1

Post-weaning, incomplete immune systems leave young pigs vulnerable. Diarrhea is a typical sign of disease challenge in the nursery phase. One of the most important causes of PWD in pigs, pathogenic *E. coli*-induced diarrhea, ranks among the most common diseases overall in global swine production.¹

2

When fed according to label directions, Kavault inhibits the production of *E. coli* pili, reducing its ability to attach to the gut wall and induce diarrhea.^{2,3,4}

3

Due to the contagious nature of *E. coli*, all pigs (including those not scouring) should be treated.⁵ Kavault should be fed to pigs that are at risk of developing, but not yet showing signs of, diarrhea in the presence of pathogenic *E. coli*.

¹Fairbrother, J., Nadeau, E., and Gyles, C. 2005. "Escherichia coli in Postweaning diarrhea in pigs: an update on bacterial types, pathogenesis, and prevention strategies." Anim. Health Res. Rev. 2005:17-39. ²Elanco Animal Health. Data on file. ³Rostagno M., Pelger, G. Exposure to the antibiotic avilamycin inhibits *E. coli* fimbriae and attachment. IPVS; 2014:246.

⁴Elanco Animal Health. Data on file. ⁵Iowa State University. *E. coli*. Available at: <https://vetmed.iastate.edu/vdpam/FSVD/swine/index-diseases/Ecoli-diarrhea> Accessed December 5, 2019.

⁶Elanco Animal Health. Data on file.

Elanco

Prevacent

PRRS

PRRS CONTROL FROM THE START

1

Porcine reproductive and respiratory syndrome virus (PRRSv) increases mortality and reduces growth performance of wean-to-finish pigs. Prevacent has proven effective against the respiratory form of PRRS in healthy pigs at least 2 weeks of age or older.

2

Prevacent is an effective vaccine that does not cause a reduction in growth performance as a result of vaccination, ensuring a strong start for just-weaned piglets.^{1,2,3,4}

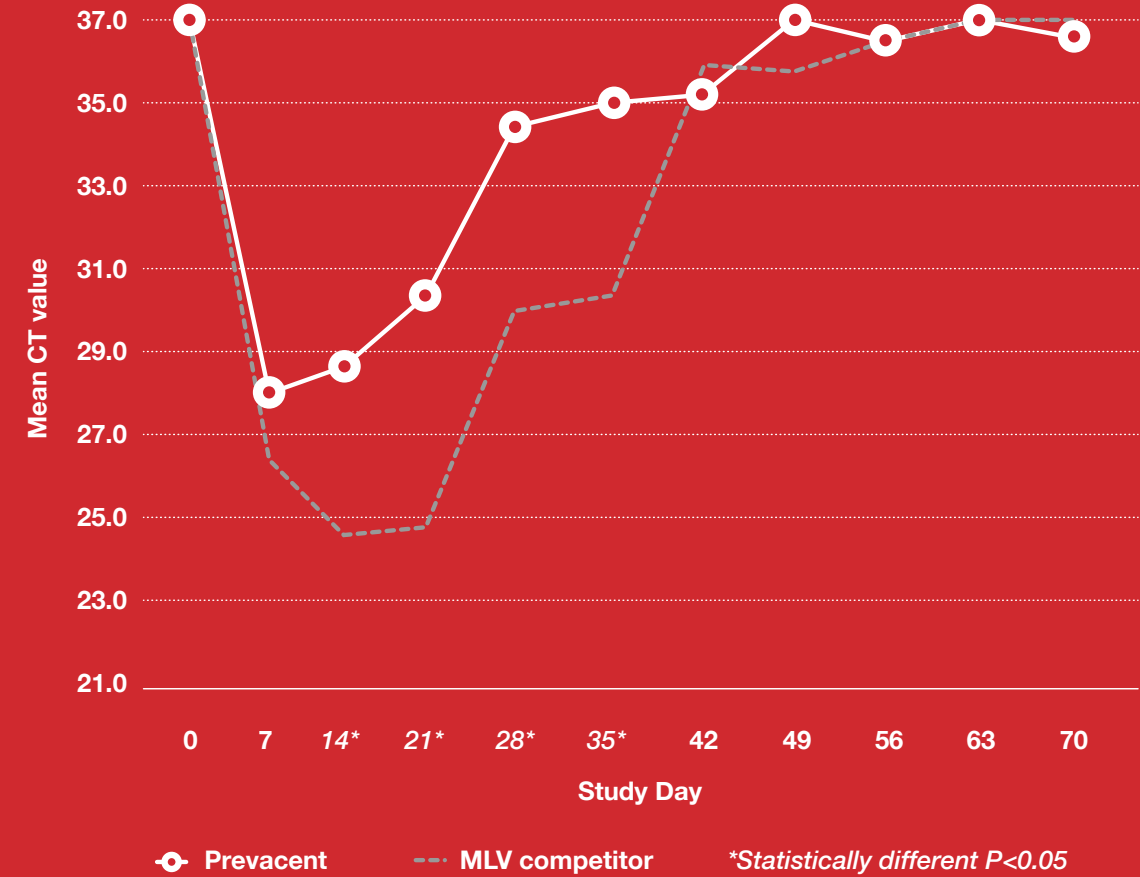
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With at least 26 weeks of demonstrated duration of immunity, a single 1 mL Prevacent dose is an effective solution to get Full Value from the start.^{5,6}



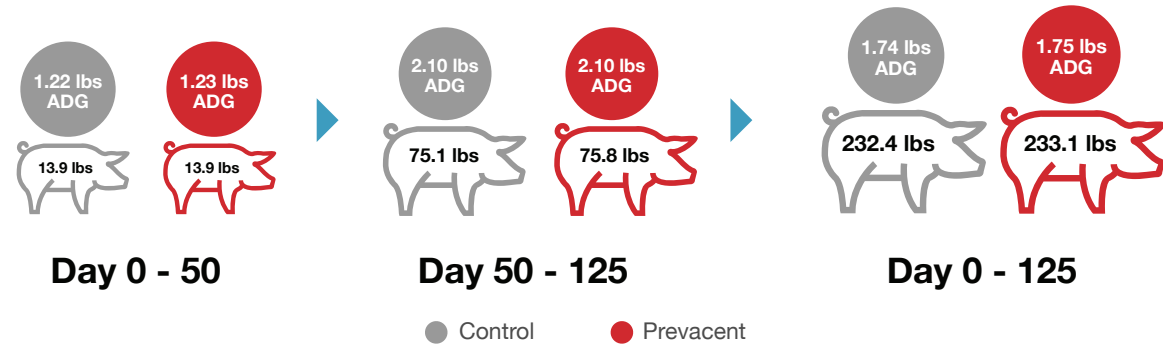
VIREMIA IN VACCINATED PIGS⁷

Prevacent caused less viremia than MLV competitor on days 14 to 35 post-vaccination.



GROWTH PERFORMANCE IN PREVACENT-VACCINATED PIGS VS. CONTROLS⁴

In a commercial study, Prevacent-vaccinated pigs showed no reduction in growth performance or difference in body weight at day 50 or day 125.



There was no detected aerosol shed in the first 28 days of vaccination.⁴

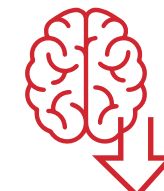
IN A NURSERY STUDY,⁸ PREVACENT DEMONSTRATED:



Quickest response (PCR) and quickest return to negative (less shedding)



Significantly fewer microscopic lung lesions



Significantly less viral brain load



Highest neutralizing antibody titer level (FFN)



Numerically highest ADG

SAFE. SMOOTH. EFFECTIVE.

¹Elanco Animal Health. Data on File. ²Elanco Animal Health. Data on File. ³Elanco Animal Health. Data on File. ⁴Yeske PE, Betlach A, Evelsizer RW, et al. Evaluation of shedding and effect on pig performance of Prevacent PRRS vaccine in commercial conditions. AASV Annual Meeting. 2021:203. ⁵Elanco Animal Health. Data on File. ⁶Elanco Animal Health. Data on File. ⁷Elanco Animal Health. Data on File. ⁸Rawal G, Almeida M, Guager, P, et al. Comparative evaluation of protective efficacy of six commercial PRRSV-2 MLV vaccines against the emergent PRRSV 1-4-4 L1C variant strain in weaned pigs. In proceedings. McKean Swine Conference. 2023:54-58

Elanco

Pulmotil[®] AC
tilmicosin phosphate

PRRS-INDUCED SRD CONTROL FROM THE START

Pulmotil[®] AC quickly and effectively controls swine respiratory disease (SRD) associated with *Mycoplasma hyopneumoniae* (*M. hyo*) in the presence of porcine reproductive and respiratory syndrome virus (PRRSv) without the need to formulate new rations, or invest the additional time and labor associated with individual pig injections.

PRRS impairs natural disease-fighting macrophages, increasing susceptibility to other bacteria. Pulmotil's unique mode of action concentrates in pulmonary macrophages, slowing the effectiveness of the PRRSv replication process and killing bacteria associated with SRD.^{1,2}

Pulmotil AC is the only FDA-approved aqueous concentrate that controls SRD associated with *M. hyo* in the presence of PRRSv, in groups of swine in buildings where a respiratory disease outbreak is diagnosed.



1

2

3

Elanco

Pulmotil[®]

FLEXIBLE SRD CONTROL, NO INJECTIONS

Pulmotil[®] sets a foundation for health management by controlling swine respiratory disease (SRD) associated with *Actinobacillus pleuropneumoniae* and *Pasteurella multocida*. Feeding Pulmotil for the duration of lactation (21 days) to control respiratory disease in lactating sows decreases mortality in the farrowing and nursery phase.¹

Its unique mode of action delivers the active ingredient rapidly to the site of infection, and works with the pig's immune system, concentrating at high levels throughout the respiratory tract to help pigs fight off respiratory pathogens.^{2,3}

Attached lungs, caused by respiratory disease lesions, remain even after the pig recovers — leading to performance losses and packer penalties.^{4*}

1

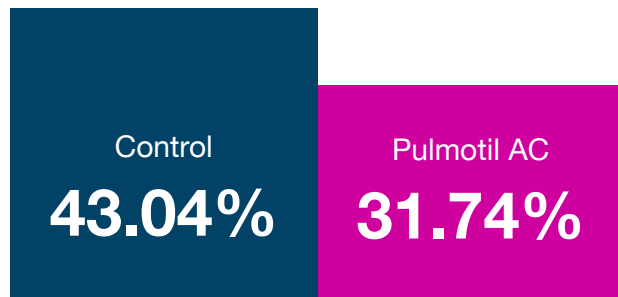
2

3



EFFECTIVENESS IN PRRSv AND M. HYO CO-INFECTION³

Co-infections with PRRSv and secondary bacterial pathogens exacerbate SRD outbreaks.



P=0.0004

Lung lesion percentage results, following 5-day Pulmotil AC treatment.

Treatment group
Co-infection (M. hyo + PRRSv)

ESTIMATED LOSS FROM RESPIRATORY DISEASE⁴



Normal Lung
Effected / Severity: 1-10%
ADG Reduction: 3%



Pneumonia
Effected / Severity: 21-30%
ADG Reduction: 15%



Severe Pneumonia
Effected / Severity: 41-50%
ADG Reduction: 24%

¹Blais L, and S Chamberland. 1994. Intracellular accumulation of tilmicosin in primary swine alveolar macrophages. IPVS Congress.

²Rossov, K.D. 1998. South Dakota State University. Porcine reproductive and respiratory syndrome. The American College of Veterinary Pathologists 35: 1-20.

³Freedom of Information Summary. 2014. NADA 141-361.

⁴Based on calculations by E. Stevermer. 1987. Respiratory diseases cut profits.

¹Almond, G., Eads, K. and Keffaber, K. 2006. "Assessment of the Therapeutic Effect of Tilmicosin in Lactation Feed." Proc. 19th IPVS Congress: 523.

²Blais L, and S Chamberland. 1994. Intracellular accumulation of tilmicosin in primary swine alveolar macrophages. IPVS Congress.

³Data on file. Elanco Animal Health.

⁴Keenlside, J. 2005. Preventing carcass losses. The Pig Site. Retrieved from: <https://thepigsite.com/articles/preventing-carcass-losses>. Accessed Sept 20, 2019.

Elanco

Proteck

PROTECT GUT HEALTH

1

Fed to weaning piglets, Proteck® can boost the diversity of beneficial bacteria in the gut microbiota, which can lower the incidence and severity of diarrhea.¹

2

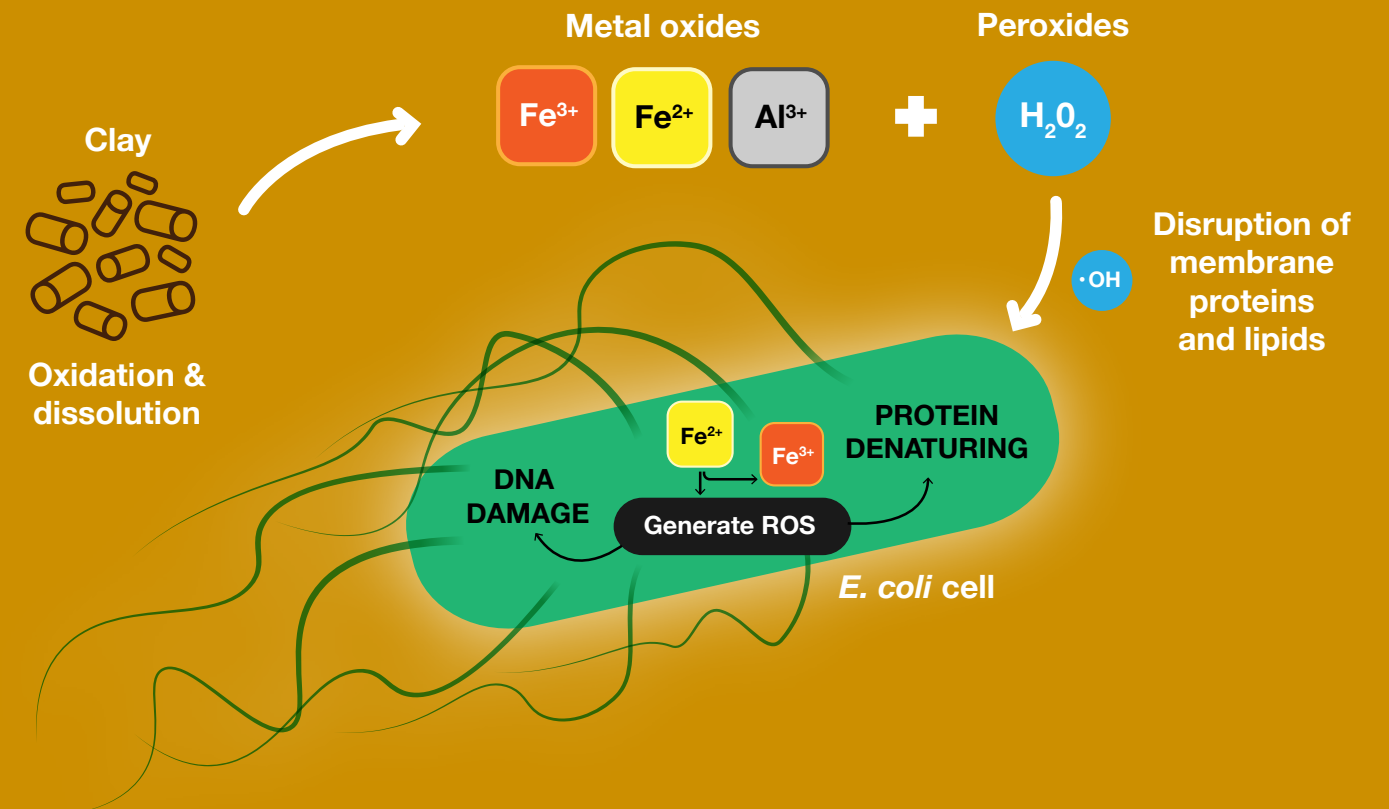
Supporting microbiota health can strengthen the intestinal wall and sustain anti-oxidative defenses. Through the management of diarrhea impact, Proteck can support growth performance in the face of a disease challenge.²

3

In recent nursery studies of *Escherichia coli* (*E. coli*) challenged piglets, improvements in ADG, ADFI and BW were observed.³

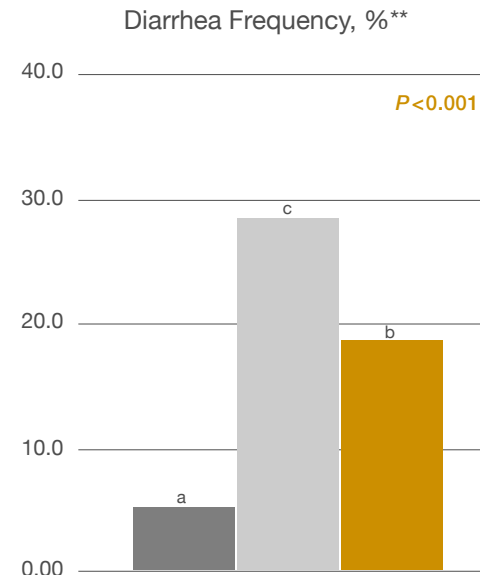
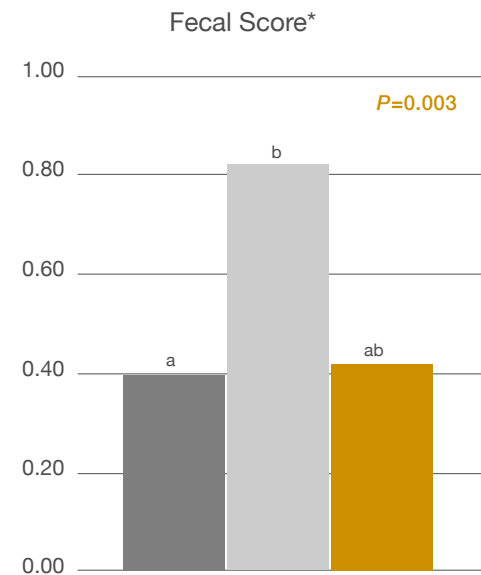


PROTECK'S MODE OF ACTION



Metal oxides found within the clay work synergistically to overwhelm the metabolic functions of pathogens

MANAGING *E. COLI*-INDUCED DIARRHEA IMPACT



^{a,b}Means without a common superscript differ (P<0.05).

*Fecal score was measured on a 0-3 scale: 0 = normal; 1 = soft feces; 2 = mild diarrhea; 3 = severe diarrhea
 **Diarrhea frequency = number of days that pigs are observed with a fecal score >= 2 / total pig days.

■ Control ■ Challenged ■ Proteck

DEMONSTRATED RESULTS IN *E. COLI*-CHALLENGED PIGS³

Performance of nursery pigs (n=232) in 5 ETEC studies 4 days post-infection*.

| | Treatment | | | P-value | Difference |
|-------------------------|------------------------|---------------------------------|--|---------|--|
| | Non-challenged Control | Challenged Control [†] | Challenged [†] + Proteck [‡] | | Challenged Control [†] x Proteck [‡] |
| ADG, lbs | 0.21 ^a | -0.02 ^b | 0.10 ^{ab} | <0.05 | +0.12 |
| ADFI, lbs | 0.52 ^c | 0.46 ^d | 0.51 ^{cd} | <0.10 | +0.05 |
| Body weight, lbs | 15.0 ^a | 14.3 ^b | 14.7 ^{ab} | <0.05 | +0.04 |

[†]Pigs orally inoculated with 3 mL of *E. coli* F18 or K88 (total of 109 CFU) on 0 and 1-dpi.

[‡]Proteck included in diets at 8 lbs/ton.

*Additional improvements in fecal scores, diarrhea frequency, and *E. coli* shedding.

¹Elanco Animal Health. Data on File.

²Elanco Animal Health. Data on File.

³Elanco Animal Health. Data on File.

Elanco™
Pradalex™
(pradofloxacin injection)

SRD POWERHOUSE

1

Pradalex™ is an SRD antibiotic treatment that reaches twice the concentration in a third of the time^{1,2} — achieving peak activity in the lungs within 45 minutes after injection.

2

Featuring a unique molecular structure and mode of action, Pradalex simultaneously blocks two enzymes responsible for bacterial replication, leading to improved potency and broad-spectrum efficacy relative to other injectable antibiotics.

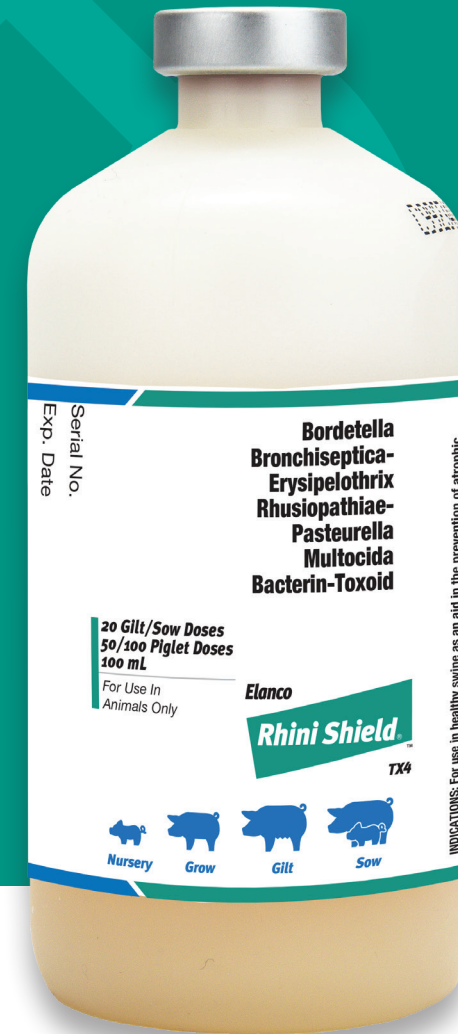
3

Pradalex is a convenient, one-shot, low-volume antibiotic with a 2-day withdrawal period, offering SRD treatment protocols flexibility from nursery to finish.

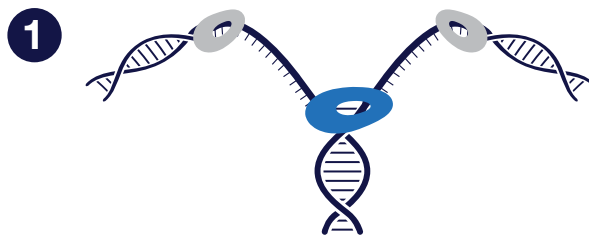


Elanco
Rhini Shield™
TX4

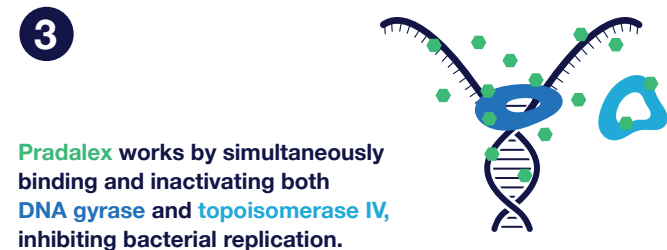
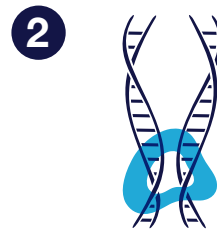
EFFECTIVE ATROPHIC RHINITIS CONTROL



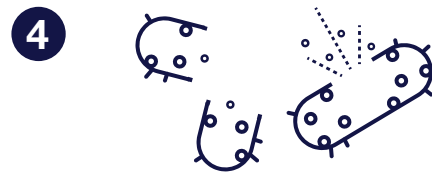
HOW PRADALEX WORKS



1 In bacterial replication, the enzyme **DNA gyrase** unfolds the bacterial DNA for replication by DNA polymerase. Afterward, the enzyme **topoisomerase IV** separates the identical DNA copies into sister cells.



3 Pradalex works by simultaneously binding and inactivating both **DNA gyrase** and **topoisomerase IV**, inhibiting bacterial replication.



4 This causes the chromosome to fragment and results in rapid cell death.

Pradalex uniquely has an equal affinity to both DNA gyrase and topoisomerase IV, leading to increased potency relative to other fluoroquinolones.

1

Atrophic rhinitis (AR) signs, including sneezing, snorting and nasal discharge, may appear in pigs as young as one week of age. AR reduces growth of infected piglets. Intervention early in a pig's life protects them from the impact of AR.¹

2

Secondary respiratory infections have been linked to AR, opening opportunity for further health distress in weaned pigs.¹

3

Passed colostral immunity from vaccinated or immune sows provides their piglets with some immunity against the agents that cause AR.¹ Vaccination may also provide an effective solution.

¹Elanco Animal Health. Data on File. ²Blondeau JM. The Mutant Prevention Concentration- A Strategy to Optimize Therapy for Bacterial Infections in Cattle & Swine. Steps to Antimicrobial Therapy. 2011:1-218

¹Iowa State University. Atrophic Rhinitis. Available at: <https://vetmed.iastate.edu/vdparm/FSVD/swine/index-diseases/atrophic-rhinitis>. Accessed on December 8, 2019.

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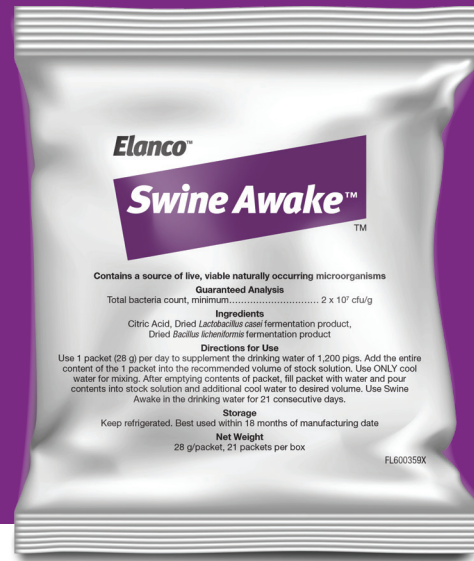
Swine Awake™

AWAKEN IMMUNITY WITH SWINE AWAKE™

1 Swine Awake™ contributes to the awakening of a non-specific response of the immune system in pigs vulnerable to viral challenges such as porcine reproductive and respiratory syndrome virus (PRRSv), a highly contagious disease that can cause reproductive impairment in breeding swine and respiratory illness in pigs of any age.¹

2 A non-antibiotic solution applied through water, Swine Awake awakens a cell-mediated immune response, preparing a pig's immune system to face viral challenges.^{2,3}

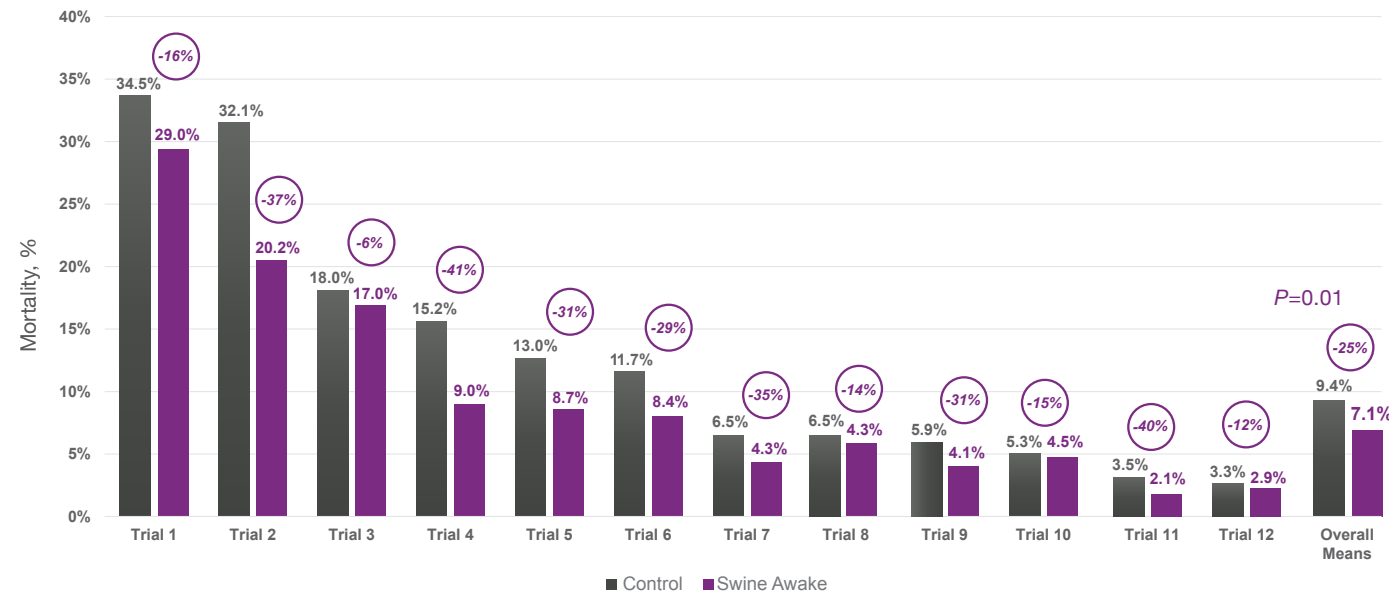
3 Applied ahead of viral challenges, Swine Awake's immune support increases the likelihood of improved pig livability, resulting in better productivity and an increase in marketable pigs.⁴



STUDY RESULTS⁵

Twelve studies completed in commercial production facilities were summarized to evaluate the effect of Swine Awake administered through water in PRRSv-positive pigs.

MORTALITY DIFFERENCES IN PIGS GIVEN SWINE AWAKE



Swine Awake is not intended to treat SRD or PRRS.

¹Iowa State University. Porcine Reproductive and Respiratory Syndrome (PRRS). Available at: <https://vetmed.iastate.edu/vdpam/FSVD/swine/index-diseases/porcine-reproductive>.
²Elanco Animal Health. Data on File. ³Elanco Animal Health. Data on File. ⁴Brethey K, Song R, Chang P. Impact of NutriQuest Swine Awake™ administration to weaned pigs on pig livability. 50th Annual Meeting of the American Association of Swine Veterinarians proceedings. 2019; 214-15. ⁵Elanco Animal Health. Data on File.

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Tylan™ Injection™

A TRUSTED PNEUMONIA SOLUTION

(tylosin injection)



1

Tylan® Injection is a cost-effective multi-control treatment solution trusted for more than 30 years.

2

Tylan Injection is effective in the treatment of swine arthritis caused by *Mycoplasma hyosynoviae*; swine pneumonia caused by *Pasteurella spp.*; and swine erysipelas caused by *Erysipelothrix rhusiopathiae*.

3

Tylan Injection, along with good sanitation, can help limit overall herd disease transmission. Tylan Injection is an effective treatment of swine arthritis and swine dysentery when followed by appropriate water or feed medication.

The labels contain complete use information, including cautions and warnings.

Always read, understand and follow the label and use directions.

PULMOTIL® AC IMPORTANT SAFETY INFORMATION:

Before using this product, it is important to read the entire product insert, including the boxed human warning.

WARNING: Exposure to tilmosin in humans has been associated with chest pain, increased heart rate, dizziness, headache, and nausea. Death has been reported following ingestion or injection of tilmosin. Avoid direct skin and eye contact. In case of human exposure, call 1-800-722-0987 and consult a physician immediately.

- Wear overalls, impervious gloves and eye protection when mixing and handling the product. Wash hands after handling the product. Wash affected parts if skin contact occurs. If accidental eye contact occurs, immediately rinse thoroughly with water.

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

- For use only in swine. Not for injection. Injection of tilmosin has been shown to be fatal in swine and non-human primates, and may be fatal in horses and goats.
- Swine intended for human consumption must not be slaughtered within 7 days of treatment.
- Always treat the fewest number of animals necessary to control a respiratory disease outbreak. Prescriptions shall not be refilled.
- Concurrent use of Pulmotil AC and another macrolide by any route, or use of another macrolide immediately following this use of Pulmotil AC is not advised.

Ensure that pigs have continuous access to medicated water during the treatment period.

Monitor pigs for signs of water refusal and dehydration while being treated.



Scan for the complete label

BAYTRIL® IMPORTANT SAFETY INFORMATION:

CAUTION: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian. Federal (USA) law prohibits the extra-label use of this drug in food-producing animals. To assure responsible antimicrobial drug use, enrofloxacin should only be used as a second-line drug for colibacillosis in swine following consideration of other therapeutic options.

- Not for use in humans. Keep out of reach of children.
- Avoid contact with eyes. In case of contact, immediately flush eyes with copious amounts of water for 15 minutes.
- In case of dermal contact, wash skin with soap and water. Consult a physician if irritation persists following ocular or dermal exposures.

Individuals with a history of hypersensitivity to quinolones should avoid this product. In humans, there is a risk of user photosensitization within a few hours after excessive exposure to quinolones. If excessive accidental exposure occurs, avoid direct sunlight.

DENAGARD® 10 PREMIX IMPORTANT SAFETY INFORMATION:

CAUTION: Using Denagard alone does not require a Veterinary Feed Directive (VFD). Using Denagard + CTC does require a VFD.

- Feed 35 g/ton of Denagard + 400 g/ton (10 mg/lb body weight in daily divided doses) CTC for 14 days.

INCREXXA® IMPORTANT SAFETY INFORMATION:

CAUTION: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

WARNINGS: FOR USE IN ANIMALS ONLY. NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN. NOT FOR USE IN CHICKENS OR TURKEYS.

- Swine intended for human consumption must not be slaughtered within 5 days from the last treatment.
- The effects of Increxxa on porcine reproductive performance, pregnancy, and lactation have not been determined.
- Intramuscular injection can cause a transient local tissue reaction that may result in trim loss of edible tissue at slaughter.
- Store below 25°C (77°F), with excursions up to 40°C (104°F).
- 100 mL: Use within 2 months of first puncture and puncture a maximum of 67 times. If more than 67 punctures are anticipated, the use of multi-dosing equipment is recommended. When using a draw-off spike or needle with bore diameter larger than 16 gauge, discard any product remaining in the vial immediately after use.
- 250 mL and 500 mL: Use within 2 months of first puncture and puncture a maximum of 100 times. If more than 100 punctures are anticipated, the use of multi-dosing equipment is recommended. When using a draw-off spike or needle with bore diameter larger than 16 gauge, discard any product remaining in the vial immediately after use.

PRADALEX™ IMPORTANT SAFETY INFORMATION:

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian. Not for use in humans. Keep out of reach of children. Avoid contact with eyes and skin. Individuals with a history of hypersensitivity to quinolones should avoid this product. Not for use in animals intended for breeding because the effects of Pradalex on swine reproductive performance, pregnancy and lactation have not been determined. Not for use in nursing piglets because safety and effectiveness have not been demonstrated. Quinolones should be used with caution in animals with known or suspected central nervous system (CNS) disorders. Mild to moderate inflammatory changes of the injection site may be seen in swine treated with Pradalex. See package insert for additional safety information.

DOSAGE AND ADMINISTRATION:

Swine: Administer once as an intramuscular injection in the neck at a dosage of 7.5 mg/kg (1.7 mL/100 lbs) body weight. Do not inject more than 5 mL per intramuscular injection site.

TYLAN® INJECTION IMPORTANT SAFETY INFORMATION:

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

WARNING: NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN.

- **Adverse reactions, including shock and death may result from overdosage in baby pigs.** Do not attempt injection into pigs weighing less than 25 lbs (0.5 mL) with the common syringe. It is recommended that Tylan 50 Injection be used in pigs weighing less than 25 lbs.
- Do not administer to horses or other equines. Injection of tylosin in equines has been fatal.
- Swine intended for human consumption must not be slaughtered within 14 days of the last use of this drug product.
- If tylosin medicated drinking water is used as a follow-up treatment for swine dysentery, the animal should thereafter receive feed containing 40 to 100 grams of tylosin per ton for 2 weeks to assure depletion of tissue residues.

Baseline, Denagard, Evosure, FeedAID, Hemicell, Increxxa, Kavault, Para Shield, Pradalex, Prevacent, Proteck, Pulmotil, Rhini Shield, Swine Awake, Tylan, the Full Value Pork Logo, Elanco and the diagonal bar logo are trademarks of Elanco or its affiliates. Baytril is sold by Elanco or its affiliates and is not a product of Bayer. Baytril is owned by Bayer and used under license. Aptimmune, Barricade and ZMAC are trademarks of Aptimmune Biologics, Inc. celluTEIN is a trademark of Puretein Bioscience LLC and is distributed by Elanco under license.

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