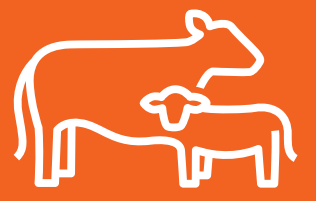


ONLY ZOETIS OFFERS A DIVERSE RANGE OF ANTIMICROBIALS TO MATCH YOUR BRD CHALLENGES.



When you're dealing with bovine respiratory disease (BRD), antimicrobial selection can be overwhelming. With so many products — offering different indications, durations and withdrawal times — which one is right for your operation?

Zoetis makes it simple with the most comprehensive and versatile antimicrobial portfolio available, including products with:

- Three different classes to destroy BRD bacteria in three different ways
- Treatment and control options
- The shortest withdrawal times for greater flexibility at different production stages

PRODUCT	ACTIVE INGREDIENT	CLASS	BRD CONTROL INDICATIONS CATTLE AT HIGH RISK OF DEVELOPING BRD ASSOCIATED WITH:	BRD TREATMENT INDICATIONS BRD ASSOCIATED WITH:	DOSAGE AND ROUTE OF ADMINISTRATION	MAXIMUM AMOUNT PER SITE	ESTIMATED DURATION	MEAT WITHDRAWAL
DRAXXIN®	Tulathromycin	Macrolide	<i>Mannheimia haemolytica</i> , <i>Pasteurella multocida</i> , <i>Histophilus somni</i> and <i>Mycoplasma bovis</i>	<i>M. haemolytica</i> , <i>P. multocida</i> , <i>H. somni</i> and <i>M. bovis</i>	1.1 mL/cwt/ subcutaneous (SC) in the neck	10 mL	14 days ^{1,2,3,4}	18 days
EXCEDE®	Ceftiofur crystalline free acid	Cephalosporin	<i>M. haemolytica</i> , <i>P. multocida</i> and <i>H. somni</i>	<i>M. haemolytica</i> , <i>P. multocida</i> and <i>H. somni</i>	1.5 mL/cwt/ SC in the middle third of ear or base of ear	N/A	7 days ⁵	13 days
ADVOCIN®	Danofloxacin mesylate	Fluoroquinolone	<i>M. haemolytica</i> and <i>P. multocida</i>	<i>M. haemolytica</i> and <i>P. multocida</i>	2 mL/cwt as a one-time injection or 1.5 mL/cwt/ SC in the neck; with this treatment repeated once, 48 hours after first injection	15 mL	**	4 days
Micotil®	Tilmicosin	Macrolide	<i>M. haemolytica</i>	<i>M. haemolytica</i> , <i>P. multocida</i> and <i>H. somni</i>	1.5-3.0 mL/cwt/ SC in the neck	10 mL	**	42 days
Nuflor®	Florfenicol	Amphenicol	<i>M. haemolytica</i> , <i>P. multocida</i> and <i>H. somni</i>	<i>M. haemolytica</i> , <i>P. multocida</i> and <i>H. somni</i>	6 mL/cwt/ SC in the neck or 3 mL/cwt/ intramuscular (IM) in the neck and repeat 48 hours after first injection. Control: 6 mL/cwt/ SC in the neck	10 mL	**	38 days SC 28 days IM
Nuflor Gold®	Florfenicol	Amphenicol	Not approved for control of BRD	<i>M. haemolytica</i> , <i>P. multocida</i> , <i>H. somni</i> and <i>M. bovis</i>	6 mL/cwt/ SC in the neck	15 mL	*	44 days
Resflor Gold®	Florfenicol and flunixin meglumine	Amphenicol	Not approved for control of BRD	<i>M. haemolytica</i> , <i>P. multocida</i> , <i>H. somni</i> and <i>M. bovis</i>	6 mL/cwt/ SC in the neck	10 mL	*	38 days
Zuprevo™	Tildipirosin	Macrolide	<i>M. haemolytica</i> , <i>P. multocida</i> and <i>H. somni</i>	<i>M. haemolytica</i> , <i>P. multocida</i> and <i>H. somni</i>	1 mL/cwt/ SC in the neck	10 mL	28 days ⁶	21 days
Zactran®	Gamithromycin	Macrolide	<i>M. haemolytica</i> and <i>P. multocida</i>	<i>M. haemolytica</i> , <i>P. multocida</i> , <i>H. somni</i> and <i>M. bovis</i>	1.82 mL/cwt/ SC in the neck	10 mL	10 days ^{7,8}	35 days
Baytril®	Enrofloxacin	Fluoroquinolone	<i>M. haemolytica</i> , <i>P. multocida</i> , <i>H. somni</i> and <i>M. bovis</i>	<i>M. haemolytica</i> , <i>P. multocida</i> , <i>H. somni</i> and <i>M. bovis</i> ; multiday therapy is not indicated for <i>M. bovis</i>	3.4-5.7 mL/cwt/ SC in the neck. For multiday therapy: 1.1-2.3 mL/cwt; repeat at 24-hour intervals for three days. Additional treatments may be given on Days 4 and 5 to animals that have shown clinical improvement but not total recovery.	20 mL	**	28 days



IMPORTANT SAFETY INFORMATION FOR DRAXXIN: DRAXXIN has a pre-slaughter withdrawal time of 18 days. Do not use in female dairy cattle 20 months of age or older. Do not use in animals known to be hypersensitive to the product. See full Prescribing Information, on reverse side.

IMPORTANT SAFETY INFORMATION FOR EXCEDE: People with known hypersensitivity to penicillin or cephalosporins should avoid exposure to EXCEDE. EXCEDE is contraindicated in animals with known allergy to ceftiofur or to the β -lactam group (penicillins and cephalosporins) of antimicrobials. Inadvertent intra-arterial injection is possible and fatal. Do not use in calves to be processed for veal. Pre-slaughter withdrawal time is 13 days following the last dose. See full Prescribing Information, on reverse side.

IMPORTANT SAFETY INFORMATION FOR ADVOCIN: Extra-label use of ADVOCIN in food-producing animals is prohibited. Do not use in cattle intended for dairy production or in calves to be processed for veal. ADVOCIN has a pre-slaughter withdrawal time of four days. See full Prescribing Information, on reverse side.

*Not labeled for control of BRD.
**Data not available in literature.

¹ Freedom of Information Summary. NADA 141-244. Available at: <http://www.fda.gov/downloads/animalveterinary/products/approvedanimaldrugproducts/foiadrugsummaries/ucm118061.pdf>. Accessed June 19, 2014.

² Zoetis. Efficacy of DRAXXIN administered to calves 9, 7, 5, 3 or 1 day before challenge with *Mannheimia haemolytica*. *Technical Bulletin No. DRX06052*, 2006:1-3.

³ Data on file. Study Report No. 1133R-60-09-749. Zoetis Inc.

⁴ Zoetis. Efficacy of DRAXXIN, followed by a 7-, 10-, or 14-day post-treatment intervals, against naturally occurring bovine respiratory disease in high-risk calves to close. *Technical Bulletin No. DRX06053*, 2007:1-5.

⁵ Zoetis. Bryson WL, Dame KJ, Hibbard B, et al. Outcomes of 3-, 5-, or 7-day post-treatment intervals after a single dose of EXCEDE. *Technical Bulletin No. EXD0612*, 2006:1-3.

⁶ Lechtenberg K, Daniels CS, Royer GC, et al. Field Efficacy Study of Gamithromycin for the Control of Bovine Respiratory Disease in Cattle at High Risk of Developing the Disease. *Intern J Appl Res Vet Med* 2011;9(2):189-197.

⁷ Menge M, Rose M, Bohland C, et al. Pharmacokinetics of tildipirosin in bovine plasma, lung tissue, and bronchial fluid (from live, non-anesthetized cattle). *J Vet Pharm Ther* 2012;35(6):550-559.

⁸ Sifferman RL, Wolff WA, Holste JE, et al. Field Efficacy Evaluation of Gamithromycin for Treatment of Bovine Respiratory Disease in Cattle at Feedlots. *Intern J Appl Res Vet Med* 2011;9(2):171-180.

