

# ZOETIS DRY COW SOLUTIONS

## MAKE A DIFFERENCE WITH A COMPLETE APPROACH







# THE POWER OF THREE APPROACH TO DRY COW CARE

The best way to knock out mastitis during the dry period is to implement a milk quality program that focuses on treatment and prevention. Investing in proactive mastitis management at dry off can pay dividends by improving milk quality, herd health and production. Only Zoetis offers a comprehensive approach with SPECTRAMAST® DC (*ceftiofur hydrochloride*) Sterile Suspension, ORBESEAL® and ENVIRACOR™ J-5.

SPECTRAMAST DC is a premium treatment for dry cows with its strong residue profile providing zero days of milk withholding and sixteen day pre-slaughter withdrawal period. SPECTRAMAST DC's broad

spectrum activity provides you and your veterinarian with a range of management options wider than any other product on the market.

ORBESEAL was the first internal nonantibiotic, inert teat sealant on the market to help prevent new intramammary infections throughout the dry period.

And, dry off isn't complete without vaccination against *Escherichia coli* (*E. coli*) mastitis. ENVIRACOR J-5 provides a safe and effective way to help control clinical signs associated with *E. coli* mastitis.

**IMPORTANT SAFETY INFORMATION:** People with known hypersensitivity to penicillin or cephalosporins should avoid exposure to SPECTRAMAST DC. Product requires a 30-day dry cow period, and has a 16-day preslaughter withdrawal period following last treatment. Use of this product in a manner other than indicated on the label, or failure to adhere to the proper milk discard period, will result in violative residues. See full Prescribing Information attached.

Refer to the ORBESEAL label for complete instructions on proper administration at dry off and removal at freshening.

# PROACTIVE MANAGEMENT FOR MILK QUALITY

Comprehensive dry cow care combines powerful treatment with a preventive defense against clinical and subclinical mastitis. According to the National Mastitis Council, dry cow therapy benefits include:

Dry Tube  
+ Sealant  
+ Vaccine  

---

Comprehensive  
dry cow care

- Higher cure rates than can be achieved by treatment during lactation
- A high concentration of an anti-infective can be used safely
- Retention time of anti-infectives in the udder is longer
- Incidence of new infections during the dry period is reduced
- Damaged tissue is allowed to heal before freshening
- Clinical mastitis at freshening may be reduced<sup>1</sup>

Treating existing infections and preventing new ones is crucial. Up to 50 percent of new udder infections occur during the dry period, and more than 50 percent of early lactation clinical *E. coli* mastitis cases begin during the dry period.<sup>2</sup> Dry cow therapy can reduce the number of new infections during this period by up to 30 percent.<sup>5</sup>

## Mastitis begins during the dry period

Research has shown that teats don't always close completely during the dry period, and new mastitis infections nearly double when quarters fail to seal.<sup>3,4</sup>

As a result, cows remain vulnerable to new infections because their teats stay open throughout much, and sometimes all, of the dry period. Teats of high-producing cows are most likely to remain open when the keratin plug fails to form during the dry period, putting your most valuable cows at the greatest risk of new infections.

Visit [www.milkqualityfocus.com/drycow](http://www.milkqualityfocus.com/drycow) to hear from dairy producers and veterinarians who have seen the benefits from investing in comprehensive dry cow management because it pays dividends through improved milk quality. And, because it is the right thing for their herd and their operation.

# SPECTRAMAST DC PRODUCT OVERVIEW

SPECTRAMAST DC is a premium treatment for dry cows with its strong residue profile providing zero days of milk withholding and sixteen days of meat withholding. SPECTRAMAST DC's broad spectrum activity provides you and your veterinarian with a range of management options wider than any other product on the market. Reducing mastitis in your herd will pay dividends in improved milk quality and higher profits.



## Key benefits of SPECTRAMAST DC:

- SPECTRAMAST DC is indicated for the treatment of subclinical mastitis in dairy cattle at the time of dry off associated with *Staphylococcus aureus*, *Streptococcus dysgalactiae* and *Streptococcus uberis*
- The shortest meat withdrawal, allowing you to maximize your management options
- Zero milk discard\* so you can get them back in the milking string faster
- Provides greater overall flexibility in milk and cattle management decisions

**IMPORTANT SAFETY INFORMATION:** People with known hypersensitivity to penicillin or cephalosporins should avoid exposure to SPECTRAMAST DC. Product requires a 30-day dry cow period, and has a 16-day preslaughter withdrawal period following last treatment. Use of this product in a manner other than indicated on the label, or failure to adhere to the proper milk discard period, will result in violative residues. See full Prescribing Information attached.

\*Zero milk discard period after calving following a 30-day dry cow period.





# ORBESEAL PRODUCT OVERVIEW

ORBESEAL® is a unique nonantibiotic paste that acts as a physical barrier against mastitis-causing bacteria, locking them out for the entire dry period.



## Key benefits of ORBESEAL:

- Mimics the cow's natural first line of defense: the keratin plug
- Provides a safe, physical barrier between the cow and the environment
- Teat canal seal is created immediately after infusion and is maintained throughout the dry cow period (demonstrated 100-day duration)

Research has shown that cows treated with ORBESEAL and a dry cow treatment program\*\* versus cows treated with only a conventional dry cow treatment program had a 33 percent reduction in clinical mastitis incidence between dry off and 60 days in milk.<sup>5</sup>

Refer to the ORBESEAL label for complete instructions on proper administration at dry off and removal at freshening.

\*\*Dry cow treatment programs include a dry cow antibiotic and a mastitis vaccine.

# ENVIRACOR J-5 PRODUCT OVERVIEW

Dry off isn't complete without vaccinating against *Escherichia coli* (*E. coli*) mastitis. As the No. 1 *E. coli* mastitis vaccine,<sup>6</sup> ENVIRACOR™ J-5 provides a safe and effective way to help control clinical signs associated with *E. coli* mastitis. Vaccinating against *E. coli* mastitis helps lessen the severity of cases of *E. coli* mastitis and helps provide an opportunity for successful treatment.



## Key benefits of ENVIRACOR J-5:

- The three-dose regimen helps stimulate the immune system for optimum response to help fight *E. coli* mastitis
- In a study, shortened duration of *E. coli* mastitis by 41 percent (64 hours) when compared with control cows,<sup>7</sup> allowing you to return to salable milk production more quickly
- In a study, increased antibody titers in milk by 13 times to help fight off infection<sup>7</sup>



# COMPLETE DRY COW CARE STARTS WITH THE RIGHT DRY TUBE

BRAND	SPECTRAMAST® DC* (ceftiofur hydrochloride) Sterile Suspension	QUARTERMASTER® (penicillin-dihydrostreptomycin) Suspension	ALBADRY PLUS® (penicillin G procaine and novobiocin sodium) Suspension	ToMORROW® (cephapirin benzathine)	Orbenin®-DC (cloxacillin benzathine)	Dry-Clox® (cloxacillin benzathine)
ACTIVE INGREDIENT	Ceftiofur 500 mg	Penicillin 1 million IU and dihydrostreptomycin 1 g	Penicillin 200,000 IU and novobiocin 400 mg	Cephapirin 300 mg	Cloxacillin 500 mg	Cloxacillin 500 mg
INDICATIONS	Treatment of subclinical mastitis	Treatment and prevention of infections	Treatment of subclinical mastitis	Treatment of mastitis	Treatment and prophylaxis of mastitis	Treatment of mastitis
LABELED PATHOGENS	<i>Staph. aureus</i> <i>Strep. dysgalactiae</i> <i>Strep. uberis</i>	<i>Staph. aureus</i>	<i>Staph. aureus</i> <i>Strep. agalactiae</i>	<i>Staph. aureus</i> <i>Strep. agalactiae</i>	<i>Staph. aureus</i> <i>Strep. agalactiae</i>	<i>Staph. aureus</i> <i>Strep. agalactiae</i>
PRE-SLAUGHTER WITHDRAWAL*	16 days	60 days	30 days	42 days	28 days	30 days
MILK DISCARD**	0 hours	96 hours	72 hours	72 hours	0 hours	0 hours
DRY PERIOD LENGTH	30 days	42 days	30 days	30 days	28 days	30 days
YEAR INTRODUCED	2005	1974	1983	1978	1975	1975

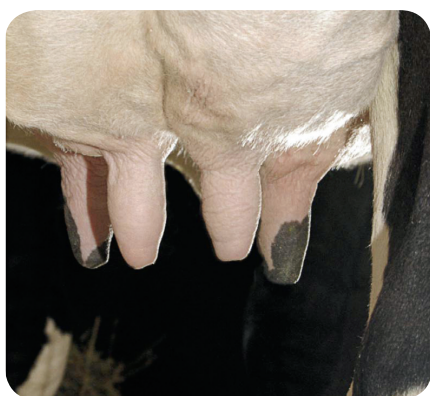
\*After last administration (or treatment).

\*\*Milk discard times begin at first milking post freshening and require completion of a minimum dry cow period.

# TO ADMINISTER ORBESEAL®

## ORBESEAL administration tips:

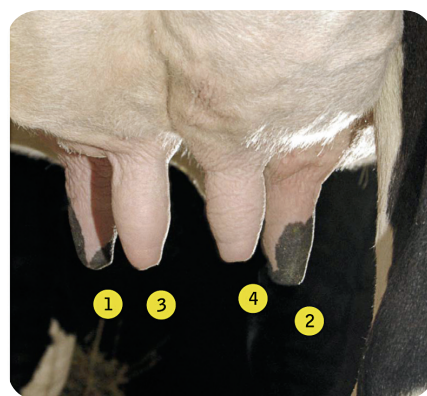
- Infuse dry cow product properly according to label instructions
- Disinfect teats with alcohol-soaked cotton pads
- Infuse ORBESEAL, do not massage product into teat
- Use proper post dip



Teats should be clean and dry. If teats are not clean, carefully wash and dry them before disinfection.



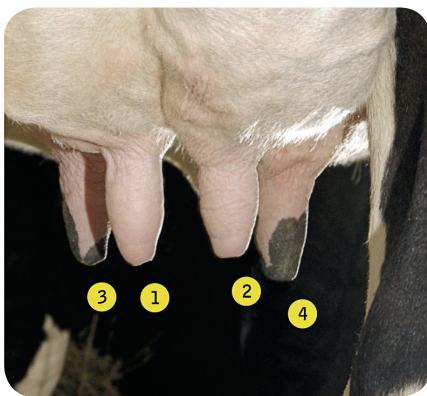
Using an alcohol pad, clean the end of the teat to remove any contaminated skin, dirt or manure. Repeat until the pad remains clean.



Disinfect the far teats before the near teats, to avoid accidental contamination of previously disinfected teats.



Pinch the teat at base of udder. Insert the ORBESEAL syringe nozzle into the teat canal and inject all contents. Use one complete syringe per quarter. Do not massage. ORBESEAL must remain in the teat to be effective.



Nearest teats should be treated first, to minimize contamination of teats that have not been treated.



After treating each cow, mark the cow so others can tell she has been dried off. Then dip each teat with a quality teat dip.



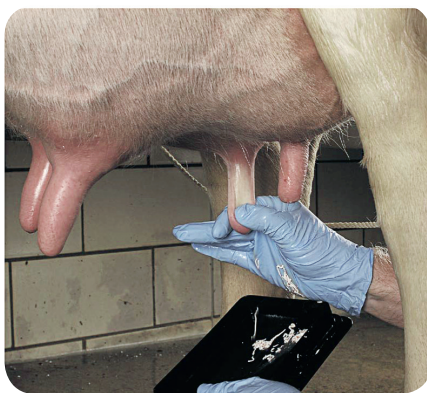
# TO REMOVE ORBESEAL

## ORBESEAL removal tips:

- Make sure to aggressively strip product from udder
- Clamp teat off at the base of the udder and work the product down



To effectively strip ORBESEAL, be sure to grab the teat where it meets the udder and work all the way down. Don't grab the middle of the teat to squeeze and work down. This will only clear the bottom half of the teat. Strip the entire quarter by starting at the top and working all the way down.



Strip aggressively, 10 to 12 times per quarter, for the first four days post-freshening. This helps to ensure that you're removing the plug and all ORBESEAL particles. Do not remove ORBESEAL by action of the milking machine.



Milk into a bucket for the first three to four days post-freshening. This will help to remove any remaining ORBESEAL particles.



# DRY COW MANAGEMENT BEST PRACTICES

Steps to  
enhance  
dry cow  
wellness

- Ensuring maximum cow comfort: Adequate bedding, space and ventilation
- Maintain the utmost cleanliness at all times
- Examining the udder at weekly intervals throughout the dry period
- Ensuring that the dry cow feeding program is nutritionally balanced
- Clipping or singeing the hair on the udders, the flanks and inside the hind legs



## A detailed black and white illustration of a cow's head, facing forward. The cow has large, dark eyes and prominent ears. Its coat is white with dark patches, particularly around the eyes and on the ears. The illustration is positioned on the left side of the page, with the text 'The Cow' written vertically to its right.

30150900A&amp;P



DAIRY WELLNESS MAKES A DIFFERENCE™

zoetis

<sup>1</sup> National Mastitis Council. NMC Factsheet—Dry Cow Therapy. National Mastitis Council, 2006.

<sup>2</sup> Bradley AJ, Green MJ. A study of the incidence and significance of intramammary enterobacterial infections acquired during the dry period. *J Dairy Sci* 2000;83(9):1957-1965.

<sup>3</sup> Dingwell RT, Timms LL, Sargeant JM, Ketton DF, Schukken YH, Leslie KE. The association of teat canal closure and other risk factors for new dry period intramammary infections, in *Proceedings*. National Mastitis Council 42nd Annu Meet 2003;298-299.

<sup>4</sup> Dingwell, et al. The importance of teat canal closure and other risk factors on dry period intramammary infections, in *Proceedings*. 36th Annu Conv AABP 2003.

<sup>5</sup> Godden S, Rapnicki P, Stewart S, et al. Effectiveness of an internal teat seal in the prevention of new intramammary infections during the dry and early-lactation periods in dairy cows when used with a dry cow intramammary antibiotic. *J Dairy Sci* 2003;86:3899-3911.

<sup>6</sup> Animalyx Segment Data Ending MAT October 2018.

<sup>7</sup> Data on file, Study Report No. 3931R-60-08-562, Zoetis Inc.

All trademarks are the property of Zoetis Services LLC or a related company or a licensor unless otherwise noted. Quartermaster is a registered trademark of West Agro Inc. ToMORROW is a registered trademark of Boehringer Ingelheim Vetmedica, Inc. Orbenin-DC is a trademark owned by and used under license from SmithKline Beecham. Dry-Clox is a registered trademark of Boehringer Ingelheim Vetmedica, Inc.

© 2018 Zoetis Services LLC. All rights reserved. SPM-00070