



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 reduced¹

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.² Dry cow therapy can reduce the number of new infections during this period by up to 30 percent.⁵

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.^{3,4} 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** 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 withdrawl 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.⁵

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,⁶ 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,⁷ 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 infection⁷

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	Staph. aureus Strep. dysgalactiae Strep. uberis	Staph. aureus	Staph. aureus Strep. agalactiae	Staph. aureus Strep. agalactiae	Staph. aureus Strep. agalactiae	Staph. aureus Strep. agalactiae
PRE- SLAUGHTER WITHDRAWAL*	16 days	60 days	30 days	42 days	28 days	30 days
MILK Discard**	O hours	96 hours	72 hours	72 hours	O hours	O hours
DRY PERIOD LENGTH	30 days	42 days	30 days	30 days	28 days	30 days
YEAR INTRODUCED	2005	1974	1983	1978	1975	1975

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

SPECTRAMAST® DC

brand of ceftiofur hydrochloride sterile suspension



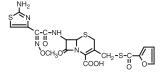
For Intramammary Infusion in Dry Dairy Cattle Only

FOR USE IN ANIMALS ONLY - NOT FOR HUMAN USE

CAUTION: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian. Federal Law prohibits extra-label use of this drug in dry dairy cattle for disease prevention purposes: at unapproved doses, frequencies. durations, or routes of administration; and in unapproved major food producing species/production classes.

DESCRIPTION: Ceftiofur hydrochloride is a cephalosporin antibiotic.

Chemical Structure of Ceftiofur Hydrochloride U-64279A



• HCI

Chemical Name of Ceftiofur Hydrochloride

5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7 - [[2-(2- amino-4-thiazolyl) - 2 -(methoxyimino)acetyl]amino]-3-[[(2-furanyl-carbonyl)thio] methyl]-8-oxo, hydrochloride.

Ceftiofur Hydrochloride Sterile Suspension is an oil based sterile suspen-

Fach 10 mL PLASTET® Disposable Syringe Contains:

Ceftiofur Equivalents (as the hydrochloride salt)	500 mg
Microcrystalline Wax	700 mg
Oleoyl Polyoxylglyceride	
Cottonseed Oil	q.s.

INDICATIONS FOR USE

SPECTRAMAST® DC Ceftiofur Hydrochloride Sterile Suspension is indicated for the treatment of subclinical mastitis in dair cattle at the time of dry off associated with Staphylococcus aureus, Streptococcus dysgalactiae, and Streptococcus uberis. SPECTRAMAST® DC Cettiofur Hydrochloride Sterile Suspension has been proven effective against Staphylococcus aureus, Streptococcus dysgalactiae, and Streptococcus uberis

DOSAGE

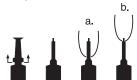
Infuse one (1) syringe into each affected quarter at the time of dry off.

DIRECTIONS FOR USING THE PLASTET® **DISPOSABLE SYRINGE**

The syringe is designed to provide the choice of either insertion of the full cannula as has traditionally been practiced, or insertion of no more than 1/8 inch of the cannula, as reported by Eberhart, R.J., et. al. 1987. Current Concepts of Bovine Mastitis, 3rd Edition, National Mastitis Council, Arlington,

- a. Full insertion: Remove the red end cap by pulling straight up as shown. Gently insert the full cannula into the teat canal; carefully infuse the
- b. Partial insertion: Remove the red end cap by pulling straight up as shown. Gently insert the exposed white tip into the teat canal; carefully infuse the product

ADMINISTRATION



Treatment: Wash teats thoroughly with warm water containing a suitable dairy antiseptic. Dry teats thoroughly. Milk out udder completely. Using an alcohol pad provided, wipe off the end of the affected teat using a separate pad for each teat. Choose the desired insertion length (full or partial) and insert tip into teat canal; push plunger to dispense entire contents, massage the quarter to distribute the suspension into the milk cistern.

Reinfection: After successful treatment, reinfection may occur unless good herd management, sanitation, and mechanical safety measures are practiced. Affected cows should be watched carefully to detect recurrence of infection and possible spread to other animals.

CONTRAINDICATIONS

As with all drugs, the use of **SPECTRAMAST® DC** Sterile Suspension is contraindicated in animals previously found to be hypersensitive to the drug.

Discard Empty Container: DO NOT REUSE KEEP OUT OF REACH OF CHILDREN

WARNINGS

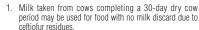
Penicillins and cephalosporins can cause allergic reactions in sensitized individuals. Topical exposures to such antimicrobials, including cettiofur, may elicit mild to severe allergic reactions in some individuals. Repeated or prolonged exposure may lead to sensitization. Avoid direct contact of the product with the skin, eyes, mouth and clothing. Sensitization of the skin may be avoided by wearing protective gloves.

Persons with a known hypersensitivity to penicillin or cephalosporins should avoid exposure to this product

In case of accidental eye exposure, flush with water for 15 minutes. In case of accidental skin exposure, wash with soap and water. Remove contaminated clothing. If allergic reaction occurs (e.g., skin rash, hives, difficult breathing), seek medical attention

The material safety data sheet contains more detailed occupational safety information. To report adverse effects in users, to obtain more information or to obtain a material safety data sheet, call Zoetis Inc. at 1-888-963-8471.

RESIDUE WARNINGS



Following label use, no pre-slaughter withdrawal period is required for neonatal calves born from treated cows regardless of colostrum consumption.

Following intramammary infusion, a 16-day pre-slaughter withdrawal period is required for treated cows.

Use of this product in a manner other than indicated under DOSAGE might result in violative residues.

CLINICAL MICROBIOLOGY

Ceftiofur is a broad-spectrum cephalosporin antibiotic that exerts its effect by inhibiting bacterial cell wall synthesis. Like other B-lactam antimicrobial agents, the cephalosporins inhibit cell wall synthesis by interfering with the enzymes essential for peptidoglycan synthesis. This effect results in lysis of the bacterial cell and accounts for the bactericidal nature of these agents. Ceftiofur has demonstrated *in vitro* activity against clinical isolates and isolates from diagnostic laboratories. The results of susceptibility testing of these isolates against ceftiofur are presented in Tables 1 and 2. Appropriate reference strains were also susceptibility tested and their minimum inhibitory concentration (MIC) values and zone of inhibition with a 30 μ g disk are presented in Table 4.

Table 1. Ceftiofur MIC values for isolates from a multi -site clinical field study evaluating subclinical mastitis in dry dairy cows in the U.S. during 2000

Organism	No.	MIC * (μg/mL)	MIC range (μg/mL)
Staphylococcus aureus	300	1.0	≤0.06 to 2.0
Streptococcus dysgalactiae	55	≤0.06	≤0.06 to >64.0
Streptococcus uberis	58	1.0	≤0.06 to 4.0

*The MIC for 90% of the isolates.

Table 2. Ceftiofur MIC values* for mastitis pathogens from diagnostic laboratories in the U.S. and Canada

Organism	No.	Date isolated	MIC _∞ ** (µg/mL)	MIC range (μg/mL)
	135	1991-1992	1.0	0.13 to 2.0
Staphylococcus	10	1993	1.0	0.25 to 1.0
aureus	107	1995	1.0	0.25 to 2.0
	61	2000	1.0	≤0.06 to 2.0
Coagulase (-) staphylococci	139	2000–2001	1.0	≤0.06 to 2.0
	15	1991-1992	1.0	≤0.06 to 2.0
Streptococcus	15	1993	≤0.0039	No range [†]
dysgalactiae	152	1997-1999	0.25	0.25 to 4.0
	64	2000	≤0.06	≤0.06 to 0.5
	22	1991-1992	0.5	≤0.06 to 4.0
Streptococcus	15	1993	0.03	≤0.0039 to 0.06
uberis	133	1997-1999	0.5	0.5 to 8.0
	20	2000	1.0	<0.06 to 2.0
	39	1991-1992	1.0	0.25 to 1.0
Escherichia coli	40	1993	0.5	0.13 to 1.0
	52	2000	0.5	≤0.06 to 1.0

* The above *in vitro* data are available, but their clinical significance is unknown.

** The MIC for 90% of the isolates.

† No range, all isolates yielded the same value.

Based on pharmacokinetic, milk residue and clinical effectiveness studies in dairy cattle following intramammary infusion of ceftiofur and the MIC and disk (30 μ g) diffusion data from mastitis pathogens, the following breakpoints are recommended by the National Committee for Clinical Laboratory Standards [now the Clinical and Laboratories Standards Institute (CLSI)] (Table 3).

Table 3. Current recommended interpretive criteria established by CLSI for ceftiofur for Bovine Mastitis

Bovine Mastitis Organisms	Disk Content	Di	Zone Diameter (mm)		MIC break- point (μg/ mL)		
		S	Ι	R	S	Τ	R
Staphylococcus aureus Streptococcus dysgalactiae Streptococcus uberis Streptococcus agalactiae Escherichia coli	30 µg	≥21	18–20	≤17	≤2.0	4.0	≥8.0

S-Susceptible I-Intermediate R-Resistant

Standardized procedures require the use of laboratory control organisms for both standardized diffusion techniques and standardized dilution techniques. The 30 µg ceftiofur sodium disk should give the following zone diameters and the ceftiofur sodium standard reference powder (or disk) should provide the following MIC values for the reference strain. The ceftiofur sodium disks or standard reference powder is appropriate for ceftiofur hydrochloride (Table 4).

Table 4. Acceptable quality control ranges for ceftiofur against CLSI recommended American Type Culture Collection (ATCC) reference strains

Organism (ATCC No.)	Zone Diameter* (mm)	MIC range (μg/mL)				
Escherichia coli (25922)	26 to 31	0.25 to 1.0				
Staphylococcus aureus (29213)	_	0.25 to 1.0				
Staphylococcus aureus (25923)	27 to 31	_				
Pseudomonas aeruginosa (27853)	14 to 18	16.0 to 64.0				

*All testing performed using a 30 µg disk

EFFECTIVENESS

The effectiveness of a single intramammary (IMM) infusion of ceftiofur hydrochloride for the treatment of subclinical mastitis present at the time of dry off was demonstrated in a randomized block design study. Nineteen veterinary investigators enrolled cows in 21 herds and from these 21 herds, 431 cows and 1708 quarters met enrollment criteria in the study and calved within a 45 to 60 day period following enrollment. The enrollment criteria were whole udder somatic cell counts greater than 400,000 cells/mL or a linear somatic cell count score greater than or equal to 5. Milk microbiologic samples were obtained prior to treatment and at Days 3 and 5 post-calving. There were 5 treatment groups including a negative control group. There were 43 cows in the negative control group and 51 cows in the 500 mg ceftiofur group that had a positive pre-treatment milk culture that were evaluated for treatment success. The primary decision variable was the microbiologic (therapeutic) cure in which bacteria isolated pre-treatment were absent from both post-treatment samples.

In another study in eleven study herds, 446 cows with a somatic cell count (SCC) greater than or equal to 400,000 cells/mL or a linear score greater than or equal to 5 were enrolled. Cows with a dry period of at least 45 days were blocked by lactation ($1^{st} + 2^{sd}$ or $\ge 3^{sd}$). A single quarter milk sample was aseptically obtained from all four quarters for bacterial culture prior to treatment and on Days 3 and 5 post-calving. There were 4 treatment groups including a negative control. There were 84 cows in the negative control and 73 in the 500 mg ceftiofur group that had a positive pre-treatment milk culture that were evaluated for treatment success. The primary decision variable was the microbiologic (therapeutic) cure in which bac-teria isolated pre-treatment were absent from both post-treatment samples.

Ceftiofur was found to be effective against Staphylococcus aureus, Streptococcus dysgalactiae, and Streptococcus uberis, when compared to negative controls. This intramammary ceftior formulation was well tolerated. No adverse formulation related events were noted during the entire study. A large multi-location field dose confirmation study and a pilot study demonstrated that 500 mg of ceftiofur infused once per guarter at the time of dry off was effective for the treatment of subclinical mastitis in dairy cattle at the time of dry off.

ANIMAL SAFETY

An udder irritation study was conducted in 22 healthy lactating dairy cows to assess udder irritation following a single intramammary infusion of a sterile oil-based suspension containing 500 mg of ceftiofur into all four quarters followed by milk-out 12 hours later. Throughout the 10 day post-treatment observation period there was a clinically insignificant rise in SCC to mean levels <200,000 cells/mL from the pre-infusion level of <69,000 cells/mL. No clinical signs of udder irritation (swelling, pain, or redness), changes in rectal temperature, or changes in milk production were noted in this study. Clinical observations were made during a GLP residue depletion study of 36 cows following a single intramammary infusion of a sterile oil based suspension containing 500 mg of ceftiofur into all four quarters at the end of lactation. No report of udder irritation or adverse reaction was noted in the daily visual observations over the 14 days immediately following treatment. Collectively, these studies demonstrate that the intramammary infusion of an oil-based sterile suspension containing 500 mg of cettiofur once into all four quarters at the end of lactation is clinically safe and non-irritating to the udder of nonlactating dairy cows.

MILK AND TISSUE RESIDUE DEPLETION

A metabolism study in cattle using radiolabeled ceftiofur provided the data to establish tolerances for ceftiofur-related residues (as desfuroylceftiofur) in tissue and milk. These tolerances of ceftiofur residues are 0.1 ppm in milk, 0.4 ppm in kidney, 2.0 ppm in liver, and 1.0 ppm in muscle.

Pivotal residue decline studies were conducted to assess the depletion of ceftiofur-related residues, measured as desfuroylcef-tio-fur using the official analytical method, in tissues of treated cows, in milk from treated cows, and in tissues of calves born to treated cows. In these studies, non-mastitic cows received 500 mg of ceftiofur per quarter into all four quarters once at dry off. The milk residue deple-tion study demonstrated that milk produced at calving may be used for human consumption with no discard period when the treatment to calving interval is 30 days or more. The tissue depletion study measured residues in the tissues of treated cows and in the tissues of neonatal calves born to treated cows. In neonatal calves born to treated cows, tissue residues were less than the codified tolerances for kidney, liver and muscle. These data support a zero day pre-slaughter withdrawal period for calves born to treated cows when the treatment to calving interval is 30 days or more, regardless of colostrum consumption. The tissue residue depletion data support a 16-day pre-slaughter withdrawal period following intramammary infusion for treated

STORAGE CONDITIONS

Store at controlled room temperature 20° to 25° C (68° to 77° F). Protect from light. Store plastets in carton until used.

HOW SUPPLIED

SPECTRAMAST® DC Sterile Suspension is available in cartons containing 1 unbroken package of 12–10 mL PLASTET® Disposable Syringes with 12 individually wrapped 70% isopropyl alcohol pads and in pails containing 12 unbroken packages of 12-10 mL PLASTET Disposable Syringes with 144 individually wrapped 70% isopropyl alcohol pads.

NADA# 141-239, Approved by FDA

Distributed by: Zoetis Inc. Kalamazoo, MI 49007



www.spectramast.com or call 1-888-963-8471

Revised: September 2013

zoetis DAIRY WELLNESS MAKES A DIFFERENCE™ ¹ National Mastitis Council. NMC Factsheet—Dry Cow Therapy. National Mastitis Council, 2006. ² 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. ³ 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. ⁴ 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. ⁵ 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.

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⁶ Animalytix Segment Data Ending MAT October 2018. ⁷ Data on file, Study Report No. 3931R-60-08-562, Zoetis Inc.

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