



An interview with  
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“ Lincomix can now be used at the rate of 100 to 200 grams per ton for 21 days for the reduction in the severity of the effects of respiratory disease associated with *M. hyo*. ”

## Lincomix offers flexible dose rate for *M. hyo*

**Q:** The feed medication Lincomix® (lincomycin hydrochloride) has been used for decades to reduce the severity of pneumonia in pigs caused by *Mycoplasma hyopneumoniae* (*M. hyo*). What’s different about the product?

**TP:** The product hasn’t changed, but its label has — most notably, the dose rate and indications for use.

Lincomix can now be used at the rate of 100 to 200 grams per ton for 21 days for reduction in the severity of the effects of respiratory disease associated with *M. hyo*. Previously, the rate was 200 grams per ton for 21 days for reducing the severity of pneumonia caused by *M. hyo*.

**Q:** What’s the practical significance of the changes?

**TP:** Lincomix is still the only Type A medicated article with an improved *M. hyo* claim. The label gives veterinarians more flexibility while reducing costs for producers if the lower dosage is appropriate for the problem at hand.

In addition, Lincomix is still approved for controlling ileitis due to *Lawsonia intracellularis* at 100 grams per ton for 3 weeks or until signs of ileitis disappear. Because the Lincomix dose rate for ileitis is now the same as the minimum dose rate for *M. hyo*, one product can be used to address two diseases when needed.

**Q:** Does the more flexible Lincomix claim affect the withdrawal time?

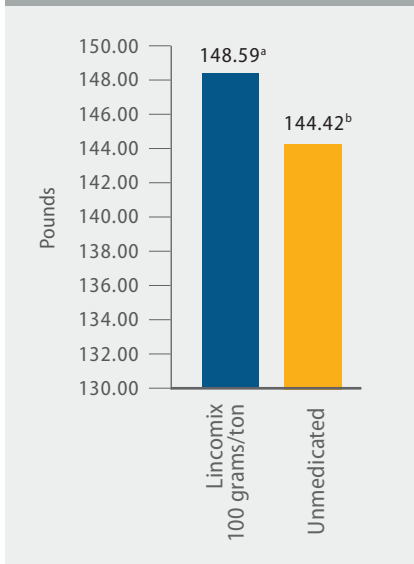
**TP:** No. There is still a zero-day withdrawal period for Lincomix.

**Q:** The lower dosing option is a plus, but is it effective?

**TP:** Yes, it is. Zoetis recently conducted a study involving more than 1,700 pigs at eight US swine operations. From 28% to 76% of pigs on each site were positive for *M. hyo*.<sup>1</sup>

*continued*

Figure 1. Average bodyweight after 21 days of treatment



Different superscript letters represent statistical significance

When Lincomix was fed at 100 grams per ton for 21 days, treated pigs consuming Lincomix had reduced lung lesions and coughing scores at 21 days compared to controls. The Lincomix groups also demonstrated better average daily gain, feed efficiency and final bodyweight compared to untreated controls. The differences were significant ( $p < 0.05$ ). Treated pigs were nearly 4.2 pounds heavier than non-medicated control pigs at the end of the 21-day period (Figure 1).

**Q: *M. hyo* has been around a long time. Why is it still a problem?**

**TP:** It's estimated *M. hyo* is present in more than 50% of US herds.<sup>2</sup> It remains a top cause of pneumonia in the presence of other bacteria and viruses.<sup>3</sup> It can occur in young pigs but usually affects finishing-age pigs, when producers have already made a considerable investment in those animals.

*M. hyo* is a tough organism to control because the organism targets the respiratory tract cilia and can persist for weeks. Some pigs don't show signs of infection but can still infect other pigs. *M. hyo* not only causes poor feed conversion and growth, it increases susceptibility to other respiratory infections, and it is a component of porcine respiratory disease complex.<sup>4,5</sup>

**Q: What else can be done to improve *M. hyo* control?**

**TP:** You need to take an integrated, holistic approach using other tools available in addition to in-feed medication use. Vaccination can help reduce *M. hyo* shedding in the nursery and potentially reduce vertical and horizontal *M. hyo* transmission.<sup>6</sup> Some veterinarians advise administration of a long-acting injectable antimicrobial to young pigs. In addition, the introduction of replacement gilts must be carefully managed — and maintaining good biosecurity is imperative.

**Q: How can Zoetis help producers achieve optimal results with Lincomix?**

**TP:** Through our STOMP® diagnostics program, we collect samples and have them tested at independent labs for *M. hyo* detection to validate the need for Lincomix. We help determine the best age for Lincomix administration. Our nutritionists can design feeding protocols that include Lincomix with each operation's budget in mind. We can help train herd caregivers and feed-mill staff and conduct feed assays at our Customer Analytical Support Laboratory. Overall, our program promotes responsible antibiotic use.

**Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug to use by or on the order of a licensed veterinarian.**

**Do not use LINCOMIX in swine intended for breeding. Do not allow unapproved species access to feeds containing lincomycin.**

<sup>1</sup> Data on file, Study Report No. A121C-US-14-150, Zoetis Inc.

<sup>2</sup> Thacker EL, Minion FC. Mycoplasmosis. In: Zimmerman JJ, Karriker LA, Schwartz KJ, et al, eds. *Diseases of Swine*, 10th ed. Oxford, UK: Wiley-Blackwell; 2012:779-797.

<sup>3</sup> Thacker EL, et al. Mycoplasmal Pneumonia of Swine, Cooperative Extension, 2010.

<sup>4</sup> Mycoplasma Pneumonia (Enzootic Pneumonia), Iowa State University of Science and Technology, College of Veterinary Medicine. 2017 Feb 4.

<sup>5</sup> Maes, D, et al. Update on *Mycoplasma hyopneumoniae* infections in pigs: Knowledge gaps for improved disease control. *Transbound Emerg Dis*. 2018 May;65(S1):110-124.

<sup>6</sup> Thacker EL, Minion FC. Mycoplasmosis.

**toolbox**

*Toolbox* is a series of interviews with veterinarians about their experiences managing antimicrobials, vaccines and other tools for swine health. It is produced by the editors of *Pig Health Today*® on behalf of the US Pork Business of Zoetis.

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