



An interview with Don Waldrip, DVM, senior technical services veterinarian, at Zoetis

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BMD®: What's its future in poultry?

Q: BMD® has been used continuously in the US poultry market for more than 40 years. Looking forward, do you have any concerns about its age?

DW: Not at all. In fact, BMD is still younger than a lot of other feed medications used in poultry. What's unique about BMD is that, despite extensive use, it has not been linked to cross-resistance with other antimicrobials or to an increase in transferable resistance. If usage and customer feedback are any indication, BMD seems to be as dependable today as it was in the mid- to late '70s when it was introduced.

Q: What keeps BMD going?

DW: I think it's the product's molecular structure and mode of action. The active ingredient, bacitracin methylene disalicylate, isn't absorbed by the intestinal tract¹ of poultry or other food animals. It works strictly in the gut and there's no withdrawal period before processing.

Q: BMD is often described as a “growth-promoting antibiotic.” Isn't the poultry industry moving away from those types of medications?

DW: “Growth promotion” is a common expression, but there's nothing in the scientific literature indicating that BMD actually “promotes growth,” nor are those words found on the product's label.

What we do know is that using BMD modifies intestinal microflora and promotes a healthy gut, which in turn enhances nutrient absorption from the feed.^{2,3} It stands to reason that the more efficiently birds can absorb nutrients, the faster they'll grow.

Years ago, FDA approved using BMD at low levels — 4 to 50 mg/ton of feed for broiler chickens — for “increased rate of weight gain” and “improved feed conversion.”

Q: But isn't FDA doing away with performance claims for all poultry antibiotics?

DW: That's a misconception. Under the new FDA rules that take effect January 2017, any poultry or livestock antibiotic considered “medically important” to humans — tetracyclines, penicillins and macrolides, for example — will drop their performance claims.



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On the other hand, BMD and one other feed medication for poultry — bambermycins — will still keep their performance claims under the new rules.

Q: Even so, some poultry companies have already told consumers they will stop using antibiotics that improve feed efficiency or flock performance. Where does that leave BMD?

DW: I think it still leaves BMD with a bright future. While BMD is one of the few poultry antibiotics remaining with FDA-approved performance claims, today’s broiler producers primarily use it for preventing, controlling or treating necrotic enteritis caused or complicated by *Clostridium perfringens* — one of the most common and costly intestinal diseases of broilers. Any performance boost from BMD is therefore considered a secondary benefit.

So, between BMD’s proven track record against enteritis and the fact that it’s not on FDA’s list of “medically important” antibiotics, I think BMD will continue to be the foundation of many broiler companies’ gut-health programs.

Q: Does this same argument apply to turkeys?

DW: You bet. In growing turkeys, BMD can be used to aid control of transmissible enteritis. It’s also approved for “increased rate of weight gain” and “improved feed conversion” — claims the product will retain under the new rules.

Q: By itself, BMD doesn’t require a veterinary feed directive (VFD), but what if you use it in combination with other poultry medications? Can you still use it without a VFD?

DW: That depends. If BMD is combined with a medication that’s not on FDA’s list of “medically important” antimicrobials — ionophores and synthetic anticoccidials, for example — you still don’t need a VFD as long as it’s an approved combination.

However, if you’re combining BMD with another drug that requires a VFD, you’ll need a VFD from your veterinarian. It also needs to be an approved combination, of course.

Q: So, in summary, between its claims for enteritis in chickens and turkeys and not requiring a VFD, BMD probably will be used in poultry feeds for many years to come.

DW: That’s a reasonable assumption. As long as the poultry industry is focused on gut health and flock welfare, I think BMD will continue to be a valuable tool for poultry companies.

For more information, contact donald.waldrip@zoetis.com or call 678. 936.5553.

¹ Original New Animal Drug Application (Bacitracin methylene disalicylate – BMD®). NADA 046-592.

² LaVorgna M, et al. Performance of broilers fed a broader spectrum antibiotic (virginiamycin) or a narrower spectrum antibiotic (bacitracin methylene disalicylate) over 3 consecutive grow-out cycles. *J Appl Poult Res* (2013) 22(3):574-582.

³ Miles RD, et al. Effect of Antibiotic Growth Promoters on Broiler Performance, Intestinal Growth Parameters, and Quantitative Morphology. *Poultry Science* (2006) 85:476-485.