National Milk Producers Federation

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"Connecting Cows, Cooperatives, Capitol Hill, and Consumers"

August 30, 2010

Division of Dockets Management Branch (HFA-305)
Food and Drug Administration
5630 Fishers Lane, rm. 1061
Rockville, MD 20852

Re: Draft Guidance: The Judicious Use of Medically Important Antimicrobial Drugs in Food-Producing Animals (Docket No. FDA–2010–D–0094)

To whom it may concern:

The National Milk Producers Federation (NMPF) is writing to comment on the draft guidance announced by the Food and Drug Administration (FDA) on June 29th entitled "The Judicious Use of Medically Important Antimicrobial Drugs in Food-Producing Animals" (Docket No. FDA–2010–D–0094). The National Milk Producers Federation, based in Arlington, VA, develops and carries out policies that advance the well-being of dairy producers and the cooperatives they own. The members of NMPF's 30 cooperatives produce the majority of the U.S. milk supply, making NMPF the voice of more than 40,000 dairy producers on Capitol Hill and with government agencies.

The dairy industry has changed dramatically in the past 50 years. In 1960, there were 17.6 million dairy cows on 1.8 million dairy farms; in 2009, there were 9.2 million cows on 55,000 commercial dairy farms in all fifty states. During this same time, milk production increased from 123 billion pounds to 189 billion pounds. From these numbers, it is clear that the dairy industry is producing more milk with fewer cows on many fewer farms. At the same time, milk safety and quality have continued to increase, resulting in the assurance that the dairy industry provides an abundant supply of high quality, safe milk for consumers. Among the many advances in the dairy industry which have enabled the industry to become more efficient in milk production are advances in animal health.

Providing proper care to animals is the best means to ensure their health and this is of the utmost importance to our members and dairy producers across the county. This is accomplished on dairy farms through a variety of measures, starting with good herd management. Proper management and handling of animals keeps them healthy and producing an abundant supply of high quality milk. Attention to dairy cow nutrition and feeding is also important, both to ensure they receive diets appropriate to their stage in life and to keep them healthy, as well as to ensure the milk they produce is safe and wholesome. Lastly, the Veterinarian/Client/Patient Relationship (VCPR) is one of the most important

means to make sure that the health of dairy cows is constantly monitored. A VCPR demonstrates that the dairy farm uses a veterinarian for health and disease issues, allowing the producer to use medications appropriately for sick or injured animals. All of these items are very important in maintaining a healthy and productive dairy cow.

To address dairy animal health and well-being, NMPF introduced the National Dairy FARM Program: Farmers Assuring Responsible Management™ in January 2009[1]. This program has its beginnings nearly 20 years earlier originally as components of the Dairy Quality Assurance (DQA) Center (with full support from NMPF). NMPF purchased the DQA Center and its programs in 2008 to further strengthen animal health and well-being for the dairy industry. At heart of the dairy animal health and well-being is the National Dairy FARM Program™ *Animal Care Manual (2009)* which includes a comprehensive set of Best Practices to provide measurable and verifiable components to allow the industry to prove the good practices being conducted at the farm. In addition, the *Milk and Dairy Beef Residue Prevention: Best Management Practices for Producers (pending 2010)* is a compendium on Best Practices related specifically to the use of antimicrobials on all life-stages of dairy cattle. These elements of the National Dairy FARM Program provide the dairy industry an appropriate vehicle to best implement future advances in animal health in our industry.

Antimicrobial Use on the Dairy Farm

Despite all of these measures to address animal health and well-being, dairy cows occasionally get sick and sometimes must then be treated with appropriate medications. When this happens, there are many safeguards in place to ensure appropriate use of the medications to ensure that residues do not enter the milk supply.

On-farm therapeutic use of animal health care products occurs to cure animals from illness across all ages of dairy animals. A recent survey of dairy farms in Pennsylvania[2] showed the therapeutic use of medications on dairy farms for several illnesses of dairy animals. These illnesses included pneumonia, metritis, foot rot, enteritis, and mastitis. It is important to note that the majority of animals are actually not treated with medications; rather, therapeutic usage is reserved for clinical cases of disease.

To properly diagnose, treat, and prevent disease, dairy producers establish a Veterinarian/Client/Patient Relationship. A VCPR is a cornerstone of the dairy animal health and well-being Best Practices of the National Dairy FARM Program™. According to the American Veterinary Medical Association (2008)[3], such a relationship exists when:

1. *"The veterinarian has assumed responsibility for making clinical judgments regarding the health of the animal(s) and the need for medical treatment, and the client has agreed to follow the veterinarian's instructions.*

[1] www.nationaldairyfarm.com.

[2] Sawant, A. A., L. M. Sordillo, and B. M. Jayarao. 2005. A survey on antibiotic usage in dairy herds in Pennsylvania. J. Dairy Sci. 88:2991-2999.

[3] American Veterinary Medical Association. April 2008. Principles of Veterinary Medical Ethics of the AVMA. Available online at http://www.avma.org/issues/policy/ethics.asp.

2. *The veterinarian has sufficient knowledge of the animal(s) to initiate at least a general or preliminary diagnosis of the medical condition of the animal(s). This means that the veterinarian has recently seen and is personally acquainted with the keeping and care of the animal(s) by virtue of an examination of the animal(s), or by medically appropriate and timely visits to the premises where the animal(s) are kept.*
3. *The veterinarian is readily available, or has arranged for emergency coverage, for follow-up evaluation in the event of adverse reactions or the failure of the treatment regimen."*

Decisions to treat a dairy animal (made under a VCPR) only use medications that are approved by the FDA Center for Veterinary Medicine (CVM). The process for animal drug approval involves safety assessments and providing withdrawal times to allow the drug to clear the animal's system. In the case of lactating animals, specific withdrawal times are established to ensure that milk is not contaminated. The milk from any animals that are treated must be separated from the commercial supply until these withdrawal times are met. The approval process is very rigorous and assures that the product is safe both for animals and the food supply.

To reduce the level of potentially harmful bacteria, which can result in infections and sickness to animals, dairy cows may also be treated prophylactically. On-farm prophylactic use of animal medications generally occurs in two areas: (1) use of medicated milk replacers fed to calves and (2) use of dry cow treatments to prevent mastitis infection during the dry period.

Medicated milk replacers are used because studies have shown an improvement in animal performance and reduction of scours in dairy calves.[4] Reported usage of medicated milk replacers on dairy farms ranges from 22 to 70%.[5,6] The use of medicated milk replacers assists with the overall health of dairy calves in this important developmental stage of their life.

Dry cow treatment often involves the use of *"a long-acting intramammary infusion given to cows between lactation cycles with the intention of treating existing infections and preventing new infections"*.[7] The use of dry cow treatment is near universal. In the 2007 U.S. Department of Agriculture Dairy National Animal Health Monitoring System[8], over 90% of dairy farms reported using dry cow treatment on some to all of their cows. Despite the

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[4] Quigley, J. D., J. J. Drewry, L. M. Murray, and S. J. Ivey. 1997. Body weight gain, feed efficiency, and fecal scores of dairy calves in response to galactosyl-lactose or antibiotics in milk replacers. J. Dairy Sci. 80:1751–1754.

[5] Raymond, M. J., R. D. Wohrle, and D. R. Call. 2006. Assessment and promotion of judicious antibiotic use on dairy farms in Washington State. J. Dairy Sci. 89:3228-3240.

[6] Sawant, A. A., L. M. Sordillo, and B. M. Jayarao. 2005. A survey on antibiotic usage in dairy herds in Pennsylvania. J. Dairy Sci. 88:2991-2999.

[7] *Ibid*.

[8] U.S. Department of Agriculture. September 2008. Dairy 2007 Part III: Reference of Dairy Cattle Health and Management Practices in the United States, 2007. Available online at: http://nahms.aphis.usda.gov/dairy/dairy07/Dairy07_dr_PartIII_rev.pdf.

common use of dry cow treatment, two surveys of antimicrobial resistance of mastitis bacteria in dairy cattle found no significant differences in the prevalence of resistance.[9,10]

Recognizing that lactating dairy cows are occasionally treated for diseases and to ensure that no animal medications enter the milk supply, all milk is screened before it is accepted into a processing plant. This is a very important control step in the process and is part of a system that the dairy industry, in cooperation with the States and FDA, established in the early 1990s. As part of this regulatory program, a sample from every tanker of milk that arrives at a processing plant is tested before milk is unloaded using screening tests that have been evaluated and approved for use by FDA. Milk that tests positive for antibiotic residues is rejected for human consumption and appropriately discarded. The dairy farmer responsible for the positive result must then pay for the entire load of milk. This costs approximately $12,000, so there is a large financial incentive to make sure that no antibiotic-treated dairy cows are milked. In addition, all milk from that dairy farm is then withheld until a negative antibiotic test result is obtained from the farm. In 2009, only 0.026% of all milk tanker samples tested positive for residues of animal medications.[11] Milk tanker samples testing positive declined by 75% from 1996-2009 indicating that the program is effective at both detecting and deterring animal medications in milk.[12,13]

Proper animal health care is the first step in the assurance that dairy products remain safe and wholesome. In fact, due largely in part to these animal health care practices, and milk being the most highly regulated food product in the United States,[14] dairy foods are lowest among major food groups in the cause of foodborne illness. Clean conditions, good manufacturing practices, and the adoption of pasteurization all have enabled dairy products to maintain an excellent safety record. Of 2,751 foodborne disease outbreaks summarized by the Center for Disease Control (CDC) from 1993-1997, 10 were attributed to milk consumption (0.36%) and 7 to cheese consumption (0.25%).[15] Most foodborne disease outbreaks associated with milk or cheese consumption are due to the consumption of raw (unpasteurized) milk or raw milk cheeses that have not been properly aged.

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[9] Erskine, R. J., R. D. Walker, C. A. Bolin, P. C. Bartlett, and D. G. White. 2002. Trends in antibacterial susceptibility of mastitis pathogens during a seven-year period. J. Dairy Sci. 85:1111–1118.

[10] Makovec, J. A., and P. L. Ruegg. 2003. Antimicrobial resistance of bacteria isolated from dairy cow milk samples submitted for bacterial culture: 8,905 samples (1994–2001). J. Am. Vet. Med. Assoc. 222:1582–1589.

[11] National Milk Drug Residue Database: Fiscal Year 2009 Annual Report. Available online at: www.kandc-sbcc.com/nmdrd/fy-09.pdf

[12] *Ibid*.

[13] National Milk Drug Residue Database: Fiscal Year 1996 Annual Report. Available online at http://www.fda.gov/Food/FoodSafety/Product-SpecificInformation/MilkSafety/MiscellaneousMilkSafetyReferences/ucm115756.htm

[14] Milk production is regulated under the Grade "A" Pasteurized Milk Ordinance.

[15] Olsen, S. J., L.C. MacKinnon, J.S. Goulding, N.H. Bean, L. Slutsker. 2000. Surveillance for foodborne-disease outbreaks--United States, 1993-1997. MMWR CDC Surveill. Summ. Mar 17;49(1):1-62 (*Most recent summary*)

FDA Draft Guidance

Antimicrobial Resistance*:* In the FDA Draft Guidance[16], FDA states that in "*order to minimize the development of antimicrobial resistance, FDA believes that steps need to be taken to ensure the judicious use of medically important antimicrobial drugs in animal agriculture. Such steps should include phased-in measures that would limit medically important antimicrobial drugs to uses in food-producing animals that are considered necessary for assuring animal health and that include veterinary oversight or consultation."*

Antimicrobial resistance is a very complex, multi-faceted issue which affects human and animal health. FDA has cited numerous studies and reports in the Draft Guidance that raise concerns about the use of antimicrobials in animals leading to antimicrobial resistance. However, there appears to be a lack of risk analysis conducted in these studies and reports. Indeed, in the one study where a risk analysis model was developed, the FDA reports[17] the study "*was unable to find a substantial body of direct evidence demonstrating that the subtherapeutic use of penicillin or tetracycline in animal feed posed a human health hazard.*" It is unclear how FDA can make the blanket conclusions specified in the Draft Guidance without conducting the associated risk analysis. FDA should use a risk analysis approach to antimicrobial use in food-producing animals (and companion animal, exotic animal, human use and industrial use as well) and antimicrobial resistance for each antimicrobial separately in each species, evaluating the drug/host/microbe dynamic.

Ionophores*:* In the FDA Draft Guidance[18], FDA states the term "medically important antimicrobial drugs" "*generally refers to antimicrobial drugs that are important for therapeutic use in humans.*" Ionophores, classified as antimicrobial drugs, are routinely used in growing and lactating dairy cattle, but are not used in human medicine. Therefore we believe that ionophores are not medically important antimicrobial drugs and should not be subject to the FDA Draft Guidance.

Milk Replacer*:* In the FDA Draft Guidance[19], FDA states "*the use of medically important antimicrobial drugs in food-producing animals for production purposes (e.g., to promote growth or improve feed efficiency) represents an injudicious use of these important drugs."* In contrast to those uses, the FDA states[20] *"uses that are associated with the treatment, control, or prevention of specific diseases, including administration through feed and water, to be uses that are necessary for assuring the health of food-producing animals."*

As noted previously in the comments, medicated milk replacers are fed to some pre-weaned dairy calves. These medicated milk replacers have label indications for prevention and treatment of diseases such as bacterial enteritis and bacterial pneumonia. Therefore, we believe that medicated milk replacers with label indications for prevention and treatment of

[16] FDA Draft Guidance #209. *The Judicious Use of Medically Important Antimicrobial Drugs in Food-Producing Animals*, page 17.
[17] *Ibid,* page 7.
[18] *Ibid,* page 3 Footnote 1.
[19] *Ibid*, page 16.
[20] *Ibid*, page 16.

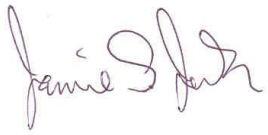
disease are recognized by the FDA Draft Guidance as "*necessary for assuring the health of food-producing animals*."

Conclusion

In closing, we appreciate the opportunity to provide comments to FDA on this important topic. Industry educational efforts on dairy animal health and well-being continue to ensure the judicious use of antimicrobials on dairy animals. Dairy producers take extreme care in the use of antimicrobials in their production enterprises so that the milk they produce can provide the American public with a bounty of safe and nutritious dairy products. We look forward to continued work with FDA on the judicious use of antimicrobials to address dairy animal health and well-being.

If you have any questions or require clarification or additional information, please contact me at (703) 243-6111 or jjonker@nmpf.org.

Sincerely,



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