CEDAR GROVE VETERINARY SERVICE NEWSLETTER

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NEW ANTIBIOTIC RULE CHANGES MAY BE ON THE HORIZON FOR 2020

The last few years have resulted in some significant changes to antibiotic use on dairy and beef farms. The most memorable change from the last three years was in 2017 with the Veterinary Feed Directive. The Veterinary Feed Directive resulted in feed and water-based antibiotics being more regulated. Farmers were now required to either obtain a prescription from a veterinarian for a water-based antibiotic or a VFD for a feed based antibiotic. Additionally, all claims on antibiotics that were solely for increased performance were removed from labels. The feed and water-based antibiotics were only to be used for treatment of clinical disease.

In September of 2019, the FDA released a draft of the next guidance for the industry. The aim would be to bring the roughly 5% of medically important antibiotics that can still be bought over the counter for use in livestock and companion animals under the oversight of licensed veterinarians. This means that injectable drugs like penicillin and tetracyclines that can still be bought from local farm supply stores will no longer be available for purchase from those stores.

Another goal of the FDA is to better define duration of use of all medically important drugs in food producing animals. By September 2020, the FDA plans to issue a draft strategy to ensure all medically important antimicrobial drugs used in the feed or drinking water of food-producing animals have a targeted duration of use. This would affect some VFD products that can be used for extended periods of time for conditions such as liver flukes. This would more likely affect beef operations since dairy cattle don't have many (if any) on-label medicated feeds that area allowed for extended use.

More importantly for the dairy industry would be the FDA's future goals of to have defined duration of use limits for injectable antibiotics. It is argued that many injectable drugs have no limit to the number of times they can be used or how long an animal can be treated with them. For example, a product like Nuflor has a label claim to be used as a single dose treatment with a dosage of 6ml/100 lbs of body weight. However, this is no clear indication of how to approach

TEST YOUR DAIRY FARMING KNOWLEDGE

1) In unused bedding, what should be the goal for coliform bacteria counts?
   a) Less than or equal to 500 cfu/cm^3
   b) Less than or equal to 1000 cfu/cm^3
   c) Less than or equal to 10,000 cfu/cm^3
   d) Less than or equal to 50,000 cfu/cm^3

2) How big should heifers be at calving?
   a) 95% of mature body weight
   b) 90% of mature body weight
   c) 85% of mature body weight
   d) 80% of mature body weight

3) What is the national average for labor costs as a percent of expenses on dairy farms for 2019?
   a) 10%
   b) 18%
   c) 27%
   d) 30%

Answers on back

repeat dosing or how many times an animal can be treated with the same product or if a washout period is needed between treatments. Advocates for this change argue that "about a third of the medically important antibiotics used in food-animal production have either no defined duration or are really vague and open-ended durations."

Finally, the FDA is currently investigating and inviting public input regarding transit times to slaughter facilities, milking frequency and interpretation of zero-day withdrawal periods and zero-day milk discard times for animal drugs. The withdrawal period or milk discard time is the interval between the last time the animal received a drug and the time when the animal can be slaughtered for human food or the milk can be consumed by people, respectively. If established withdrawal periods and milk discard times are appropriately followed, any drug residues present are expected to be safe for people to eat. In most cases, the FDA assigns a zero-day withdrawal period or zero-day milk discard time to new animal drugs when data or information demonstrate that edible tissues or milk can be consumed within time points known as "practical zero" withdrawal or milk discard.

Since the 1980s, the FDA has defined practical zero withdrawal as six hours for poultry and 12 hours for cattle and pigs, and practical zero milk discard as 12 hours for lactating dairy cows. The FDA currently assigns a zero-day withdrawal period or zero-day milk discard time to new animal drugs if data from scientific studies or other available information confirm that the amount of the drug remaining in edible tissues or milk from treated animals is safe for people to eat six hours after the last dose for poultry or 12 hours after the last dose for cattle, pigs, sheep, and goats.

The FDA recognizes that the animal agriculture industry has undergone significant changes since the 1980s when the current assumptions about transit time to slaughter and milking frequency were formulated. With that being said, the agency has no indication of any new safety concerns currently. In fact, the number of drug residue violations detected by USDA at slaughter and reported to FDA has been trending downward since 2013. Instead, the FDA is seeking this information about current industry practices to ensure that current protocols meet the industry's needs.

Many these rules are in response to fears over antimicrobial resistance and consumer concerns. For example, the most recent report regarding antimicrobial resistance indicated that *Salmonella* resistance to third generation cephalosporins, fluoroquinolones, or azithromycin has increased. The rise in Salmonella resistance to these drugs means that treatment with them may not always work. Excede, Excenel, Naxcel, and Spectramast are all examples of third generation cephalosporins used in cattle. Baytril 100 is an example of a fluroquinolone used in cattle. Animal agriculture is far from the only one to blame for the current antimicrobial resistance concerns; however, the industry does need to do its best to protect the health of the world as whole. Adherence to stricter regulations may be difficult, but a failure to do so may result in the elimination of any antibiotic treatments for the animals that are the cornerstone to farmers' own livelihoods.

Dairy Farming Knowledge Answers
1)A 2) C 3) B