

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of
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World Health
Organization

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Agenda Item 6

RVDF/22 CRD/30

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON RESIDUES OF VETERINARY DRUGS IN FOODS

Twenty-second Session

San José, Costa Rica, 27 April – 1 May 2015

COMMENTS OF NATIONAL HEALTH FEDERATION (NHF)

General Comments by the National Health Federation (NHF) on Antibiotic Use in Animals

The National Health Federation respectfully submits its observations about the general and widespread use of antibiotics in food production, and animal ranching practices in particular, as well as their potential replacement by prebiotics and probiotics:

1. Setting maximum upper levels is a moot point and should be avoided when these veterinary drug residues have been determined carcinogenic and unsafe. See, for example, the JECFA assessment that “there is no safe level of residues of gentian violet or its metabolites that represents an acceptable risk to consumers” as they are carcinogenic and genotoxic. See also the Comments of Egypt at CRD 16.
2. Antibiotic resistance is a vital concern in animals and humans, and has led to the creation of super bacteria. “Last fall, the Centers for Disease Control and Prevention [warned that antibiotic resistance](#) was responsible for 14,000 U.S. deaths every year and rising, and said there was a very real chance antibiotics could lose all effectiveness if doctors didn’t stop overprescribing them to patients and farmers didn’t cut back on feeding them to livestock for growth enhancement. This Summer, [CDC Director Thomas Frieden warned](#) that drug-resistant bacteria could bring about ‘the next pandemic.’”ⁱ In the case of aureomycin, it is excreted in the pig’s feces and then spread on fields as fertilizer, harming humans, animals and the soil. These are a matters that should present huge concerns for this Committee.
3. Now long-lived bacterial DNA (drug resistant super bacteria) are aerosolized - airborne, capable of spreading far and fast, as recently confirmed by researchers from [Texas Tech University](#) when examining dust that originates in the cattle farms of the Texas panhandle. The levels found downwind were 4000% higher than those upwind. This unwanted spreading should be of great concern to CCRVDF.
4. The rise of antibiotic-resistant infections in U.S. hospitals can be traced directly to modern farming practices. “Modern practice of feeding antibiotics to pigs and other livestock—not to cure illness but to increase their growth rate and squeeze them into increasingly crowded conditions—was born”ⁱⁱ Some hospitals have stopped serving meat in order to ensure that their antibiotics work as they prescribe. “Aureomycin had the potential to be a wonder drug on the scale of penicillin; in hospital tests, it proved effective at fighting everything from whooping cough to typhus. But doctors found it was especially good against amoebic dysentery and other intestinal infections. And it had an interesting side effect: The patients put on weight.”ⁱⁱⁱ This led to the widespread practice of using antibiotics as growth promoters. Please see NHF’s point 9 below, where scientific studies have documented viable alternatives to this detrimental practice.
5. Alternative therapies to control scabies, lice, parasites, and infections, and the like must be developed and employed. “Take, for example, the class of feed additives known as ionophores. These are a special category of antibiotics that can be used in both the cow-calf and feedlot sectors. There are three products currently registered for use in Canada. These include lasalocid sodium, monensin sodium and salinomycin sodium. Originally marketed for control of coccidiosis in poultry, these products were found to have similar biological activity in beef cattle. Coccidiosis is a protozoa infection of the lower gut, typically seen in young animals, particularly those that are under stress (i.e. weaning, shipping and mixing).”^{iv}

6. Alternative methods need to be employed to create food efficiency and weight gain in the place of dangerous and unhealthy steroids and antibiotics. “Feeding an ionophore such as monensin promotes the growth of gram negative and hinders the growth of gram positive bacteria. The result is a shift in the rumen microbial population and a more desirable rumen fermentation pattern, particularly in terms of feed-energy capture. The result is less feed for the same gain and, as a result, improved feed efficiency.”^v So, we need to provide alternatives, apart from antibiotics, to promote growth of gram negative bacteria that will promote better health and feed efficiency and lower methane gas production in cattle.
7. It is estimated that 80% of the antibiotics in America are used on livestock. Much is used to treat disease brought on by industrial feedlot conditions, but it is also used as a growth agent. “Control of coccidiosis is only one of the many benefits that ionophores provide to beef cattle operations. They are also registered at inclusion levels that may or may not be the same as for coccidiosis control for improvement of weight gain and/or feed efficiency. Cattle fed ionophores typically eat less feed while gaining the same or slightly better than non-ionophore-fed counterparts. It is not uncommon to see feed efficiency improve by five to 10 per cent when these products are fed at approved levels.”^{vi}
8. The use of probiotics in animal feed and health is not a new concept. In one study, it was shown that probiotic species belonging to *Lactobacillus*, *Streptococcus*, *Bacillus*, *Bifidobacterium*, *Enterococcus*, *Aspergillus*, *Candida*, and *Saccharomyces* have a beneficial effect on broiler performance, modulation of intestinal microflora and pathogen inhibition, intestinal histological changes, immunomodulation, certain haemato-biochemical parameters, improving sensory characteristics of dressed broiler meat, and promoting microbiological meat quality of broilers.^{vii}
9. In another study, multi-enzyme, prebiotics, probiotics, and even essential oils lessen depression in growth in coccidial challenges in broilers proving that sub-therapeutically efficacious supplements (except essential oils) provided successful alternatives to antibiotics.^{viii}

Alternatives, such as prebiotics and probiotics, are the most logical animal feed aids for greater animal (and thus human) health, addressing each of the issues that antibiotics currently have failed to solve. There exists a large available body of science (largely on PubMed) proposing a true solution, versus simply further regulating a failed model. This Committee would be well served to look beyond the failing and already failed paradigm of antibiotic overuse for feedlot and food-production problems. Shifting to prebiotic and probiotic use would lead to greater consumer protection (and animal health), accomplishing a notable Codex goal.

ⁱ Ted Genoways, “This Little Piggy Bred a Superbug,” *Onearth*, October 14, 2015, at http://archive.onearth.org/articles/2014/10/spam-and-superbugs-how-breeding-fatter-hogs-created-a-modern-human-health-crisis?__scoop_post=10c0f7c0-ec53-11e4-bb32-90b11c3d2b20&__scoop_topic=4143020#__scoop_post=10c0f7c0-ec53-11e4-bb32-90b11c3d2b20&__scoop_topic=4143020.

ⁱⁱ *Ibid.*

ⁱⁱⁱ *Ibid.*

^{iv} John Mckinnon, “The role of Technology in the efficient production of wholesome beef,” *Canadian Cattlemen*, Jan 30, 2015, at http://www.canadiancattlemen.ca/2015/01/30/the-role-of-technology-in-the-efficient-production-of-wholesome-beef-2/#__scoop_post=65db1ba0-ec4e-11e4-e454-90b11c3ead14&__scoop_topic=4143020

^v *Ibid.*

^{vi} *Ibid.*

^{vii} S.M. Kabir, “The Role of Probiotics in the Poultry Industry,” *Int J Mol Sci*. 2009 Aug; 10(8): 3531–3546. Published online 2009 Aug 12. doi: [10.3390/ijms10083531](https://doi.org/10.3390/ijms10083531).

^{viii} Bozkurt M et al., “Efficacy of in-feed preparations of an anticoccidial, multienzyme, prebiotic, probiotic, and herbal essential oil mixture in healthy and *Eimeria* spp.-infected broilers,” *Poultry Science* 2014 Feb;93(2):389-99. Doi: 10.3382/ps.2013-03368.