



October 15, 2021

Laura Scott
National Manager, Feed Program Coordination and Outreach Section
Canadian Food Inspection Agency
59 Camelot Drive
Ottawa, ON K1A 0Y9
Sent by email: laura.scott@inspection.gc.ca

Dear Ms. Scott,

Re: Canada Gazette, Part I, Volume 155, Number 24: Feeds Regulations, 2022

Ontario Pork appreciates the opportunity to provide input on the proposed amendments to the *Feed Regulations, 1983*, and as an industry, we support the concerns and recommendations submitted by our national organization, the Canadian Pork Council (CPC).

As the proud voice of the province's 1,143 pork farmers, and a leader in the agriculture industry, Ontario Pork is committed to sustainable growth in the pork sector, delivering government representation, research investment, and industry improvements in areas including animal care and environmental sustainability, while growing the brand and reputation of producers and their product. Ontario's pork industry "farm to fork" generates \$2.74 billion in economic output and 15,339 in full-time equivalent jobs.

Ontario Pork supports efforts that are intended to manage the risks that livestock feeds pose to human, animal and plant health and the environment, however, we do not agree with the restriction on the use of zinc as outlined in the swine table related to the Maximum Nutrient Values for Feeds. We also note that the Agency has missed an opportunity to utilize the Feed Regulations, 2022 to control the import of feed or feed grains from countries infected with a foreign animal disease (FAD).

Ontario Pork recommends the following of CFIA:

- Amend the "*Tables of Maximum Nutrient Values for Feeds*" to allow for the use of zinc oxide at levels up to 3,000 mg/kg for the two-week post weaning period for starter pigs weighing 7 kg and between 7 - 11 kg.
- Use the authority under in the *Feeds Act* to control the import of feed (or feed grains) from countries infected with a foreign animal disease.

The following provides detailed information regarding Ontario Pork's recommendations.

ZINC OXIDE

CFIA's proposal to introduce a maximum nutritional level of 300 mg/kg for zinc oxide takes away an essential tool (zinc oxide) to modulate gut health as well as control diarrhea in post weaned piglets.

Zinc oxide as an effective and efficient feed component

For decades, zinc oxide has been used in multiple ways to improve nutrition and is a core component of most nursery diets. It is used as an essential nutrient (low dose) to promote gut health, improve feed intake in nursery pigs (high dose), and as a therapeutic agent for the treatment and prevention of post weaning diarrhea (high dose). CFIA's proposed limit of 300 mg/kg introduced in the "Tables of Maximum Nutrient Values for Feeds" will severely restrict access to this micronutrient.

Zinc oxide has four general modes of action within the pig beyond that of an essential nutrient:

1. Young, weaned pigs may have high zinc requirements
2. Protects immature gut
3. Antibacterial
4. Increases feed intake

Antimicrobial resistance

The Canadian Pork Council's Drug Use Policy (www.cpc-ccp.com/drug-use-policy), part of the PigSAFE | PigCARE program, reflects the pork industry commitment to the responsible and proper use of veterinary pharmaceuticals. It recognizes the importance that producers place in producing safe food while also demonstrating their stewardship of antimicrobials.

The three core objectives of the policy are:

1. **Food safety:** Ensure the proper use of veterinary products to prevent drug residue in pork.
2. **Antimicrobial resistance:** Encourage the responsible use of antimicrobials to reduce the development of antimicrobial resistance that could pose a risk to human and animal health.
3. **Antimicrobial stewardship:** Demonstrate that Canadian pork producers are committed to antimicrobial stewardship and the sustainable use of antimicrobials.

Under the drug use policy, producers are prohibited from:

1. The preventive use of Category I antimicrobials.
2. The use of medically important antimicrobials (i.e., Category I, II, III) for growth promotion.

Ontario Pork recognizes the Government of Canada's concerns with respect to the use of zinc oxide and antimicrobial resistance. We acknowledge that the current scientific literature suggests, zinc oxide, when fed at high levels **over long durations of time**, may lead to the development of antimicrobial resistance. The literature suggests that genetic coupling between genes of heavy metal resistance and antibiotic resistance are sometimes associated.

Ciesinki et al. found that the percentage of E. coli that were resistant to multiple antibiotics was increased by feeding zinc oxide for 28 days after weaning. However, this increase did not occur when it was **limited to 14 days**. Thus, minimizing the feeding duration of zinc oxide is an important consideration. A 14-day post weaning high level (maximum 3000 mg/kg) period is a prudent alternative to an outright ban.

No alternatives

There are no alternative products (vaccines, veterinary health products (VHP), etc.) available that are as simple, effective, and affordable as zinc oxide. The CFIA suggests that alternative options for improving the health of post weaning piglets, including diarrhea control, may include changes to animal production practices around weaning times, altering access to nutrients, new drug alternatives and vaccines, and other VHP. These comments are highly speculative and not easily implemented on all farms.

The suggestions of altering access to nutrients, developing new drug alternatives and vaccines, and identifying other sources of VHPs are also not short-term solutions. More research, often funded by pork producers, must be undertaken before eliminating zinc oxide from the toolbox.

Producers need access to as many tools as possible to manage their operations. Each is unique. Forced to abandon zinc oxide, producers may be pressed to rely on other antimicrobials - some of which may be medically important for human medicine - to protect the health and welfare of their animals.

Environmental impact

Heavy metals have been raised as a potential concern as zinc is excreted by the pig. If high levels of zinc oxide are fed for extended time periods, beyond the first two weeks post weaning, this can be a concern under some unique conditions.

For most pig production sites around the world, this is a minor issue when zinc oxide is used appropriately. Belkova et al. commented that Denmark is often used as an example where, in acidic and sandy soils, zinc oxide levels exceeded the predicted no-effect concentrations and were nearing the point of becoming a toxic hazard. Belkova et al. expands this to say that Denmark produces 32 million weaner pigs per year (11 times the average of other EU countries) on a very small land mass. Thus, heavy metal contamination from zinc oxide may be an issue in this situation, but not in most countries around the world.

The reality is that there are no environmental concerns in Canada related to the accumulation of zinc. On the contrary, in many areas, farmers add zinc to their crop fertilizer to compensate for its deficiency. A June 2019 draft paper released by Environment and Climate Change Canada would seem to confirm that zinc is not a concern (www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/draft-screening-assessment-zinc-compounds.html).

“On the basis of the information presented in this draft screening assessment, it is proposed to conclude that zinc and its compounds do not meet the criteria under paragraph 64(c) of CEPA as they are not entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health.”

Competitive disadvantage

Eliminating the option of using zinc oxide at higher than nutritional levels to prevent diarrhea in post weaned piglets will place Canada at a disadvantage to its American competitors. Ironically, CFIA's proposal will not result in less zinc oxide being used, it will simply transfer the location of where the product is used.

American-based producers supply 90% of Canadian pork imports (imports represent 30% of domestic pork disappearance) and are quite capable of supplying an even larger percentage. In addition, these producers are also Canada's most important competitors in export markets which account for 70% of Canadian pork sales. The global pork sector is marked by intense competition and very small profit margins. It does not take a significant increase in production costs to change to where animals are raised and processed.

As the US is not proposing to restrict the use of zinc oxide, the CFIA measure will result in a misalignment of regulatory approaches and provide US producers with a distinct advantage.

Alignment with the European Union (EU)

The CFIA has noted that the EU will be banning the therapeutic use of zinc oxide in 2022 and will severely restrict the use of zinc as a feed additive in livestock feeds (to 150 mg zinc/kg feed).

It is unfortunate that the CFIA has chosen "aligning with the EU" as a reason to support the regulatory change. It is our view that the European regulatory change is driven less by science and more by political considerations that include the desire to restrict imports. The European Union has a long history of using non-science-based measures to restrict trade. Aligning Canada with the EU regulatory environment will not reduce the market access challenges in exporting to Europe. And will not open any other export market.

CONTROL OF FEED IMPORTS

On March 19, 2019, in accordance with provisions under the *Health of Animals Act*, Canada declared secondary control zones for the prevention of the introduction of African swine fever (ASF). This declaration introduced changes for imports of unprocessed grains and oilseeds, as well as associated meals destined for use in livestock feed from those countries and established the ports and processes through which these products must pass to enter Canada.

Ontario Pork was pleased with the government's decision to use existing legislative authorities to introduce interim requirements for the importation of select plant-based feed ingredients originating from countries of concern for ASF. Given that this pathway remains a risk we believe this regulatory modernization should include a more permanent solution to the threat.

The *Feeds Act* states that "No person shall manufacture, sell, import or export in contravention of the regulations any feed that presents a risk of harm to human or animal health or the environment." This prohibition could provide the authority to regulate the import of feed or feed grain providing a way to the control feed imports from countries that are infected with a foreign animal disease, including ASF. We encourage the CFIA to amend the feed regulations to use the authority provided under the *Feeds Act* to control the import of feed (or feed grains) from countries infected with a foreign animal disease.

Going forward

Ontario Pork is supportive of CFIA's efforts to modernize the feed regulations. Pork producers are constantly investing and innovating in the health and welfare of their animals to ensure the sustainable production of affordable, wholesome pork. Many of the proposed changes will enable this objective to be achieved in a sustainable manner.

However, we strongly disagree with the proposed limit of 300 mg/kg for zinc. We are also concerned that CFIA has not taken advantage of the regulatory modernization to strengthen import controls that address the highest risk pathways for ASF introduction.

Ontario Pork appreciates the opportunity to provide input on this important issue.

Sincerely,



John de Bruyn
Board Chair