

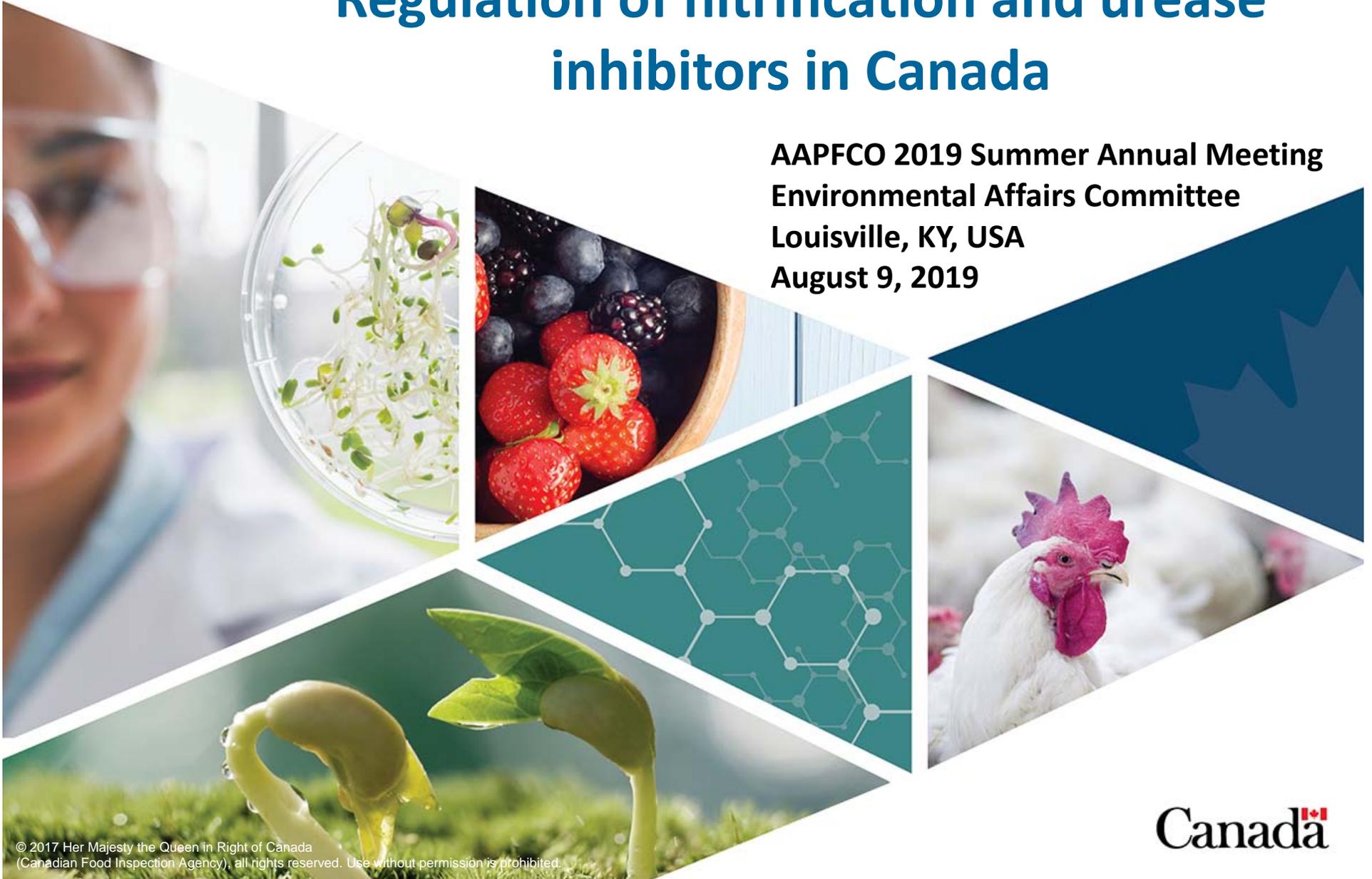


Canadian Food  
Inspection Agency

Agence canadienne  
d'inspection des aliments

# Regulation of nitrification and urease inhibitors in Canada

AAPFCO 2019 Summer Annual Meeting  
Environmental Affairs Committee  
Louisville, KY, USA  
August 9, 2019

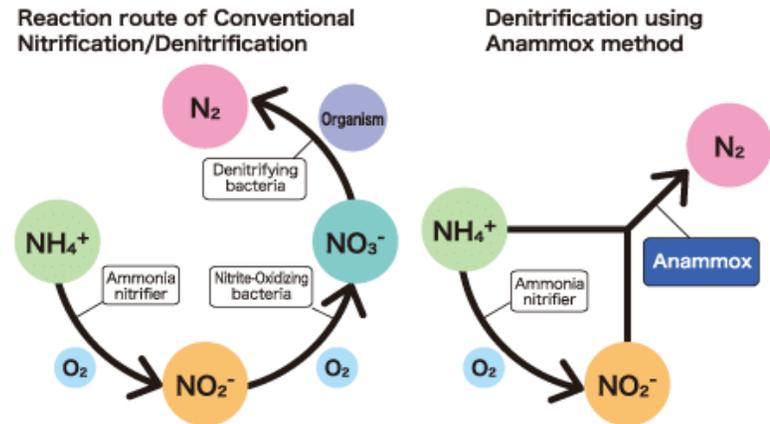


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Canada

# Background - mode of action

- Nitrification and Urease inhibitors (i.e., nitrogen stabilizers) are nitrogen management products that can be applied with many forms of nitrogen-based fertilizers.
- Nitrogen stabilizers are used to increase **nitrogen-use efficiency** by reducing nutrient losses to the environment through volatilization (losses to air) and leaching and run-off (watershed contamination) allowing for more of the applied nitrogen fertilizer to be available to the crop.
- These treatments can reduce the greenhouse gas emissions associated with fertilizer use (e.g. nitrous oxide [ $\text{N}_2\text{O}$ ]) which are major contributors to of climate change.



Soil bacteria involved in N cycle

# Development of an Implementation strategy

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- In 2015 Pest Management Regulatory Agency's (PMRA) announced that nitrification and urease inhibitors met the definition of Pest Control Product and would require registration under the *Pest Control Products Act*.
- Industry stakeholders (lead by Fertilizer Canada) expressed their concerns and lobbied to have these products regulated as supplements under the Fertilizers Act (administered by the CFIA).
- A review of legislation revealed an overlap in authorities. As the CFIA's evaluations are equivalent to those of the PMRA, it was agreed that nitrogen management products would be regulated **solely** by the CFIA as supplements.
- The CFIA engaged Fertilizer Canada and affected stakeholders in developing an implementation strategy for both new products and those already in the marketplace. Fertilizer Canada responded with a proposal (April, 2019) regarding:
  - 1) phase-in period; and
  - 2) data requirements for substantiating environmental protection claims.

Following a detailed review of Fertilizer Canada's submission, the CFIA announced the following implementation strategy:



# Implementation strategy: Phase-in

## Year 1

Proponents must submit applications to register their products under the *Fertilizers Act* by June 30, 2020.

During this first year the CFIA will provide information letters to companies that are found marketing nitrification or urease inhibitors without registration.

## Year 2 - onwards

Products not registered ,and for which no application for registration under the *Fertilizer Act* is actively under review, will be deemed in contravention of the *Fertilizers Act* and may be subject to enforcement action (e.g. stop sale or detention).

During this period the CFIA will not take action against unregistered products found in the marketplace for which an application for registration was submitted during year one, and is actively under review by the CFIA. These companies will be considered to be acting in “good faith”.

# Data requirements – dependant on claim

## Product Safety

Human, animal,  
plant, and  
environmental  
health



Reduced  
Environmental  
Impact

### **Data supporting the safety of the inhibitor product itself:**

- Detailed description of ingredients and manufacturing process
- Scientific Rationale and Supplemental Data

### **Reduced environmental impact data (based on claim):**

- **Description of mode of action (in all cases)**
- Nitrogen speciation curves (such as: Urea hydrolysis curves, soil ammonium content curves, etc.)
- Volatilization data ( $\text{NH}_3$ ,  $\text{N}_2\text{O}$ )
- Nitrate leaching data
- etc

Data must be developed using appropriate controls (soluble nitrogen product as reference) while using good scientific practices (results must be measurable and repeatable).

## Additional information

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Notice to industry - Regulation of nitrification and urease inhibitors under the *Fertilizers Act* (June 7, 2019)

<https://inspection.gc.ca/eng/1559331988417/1559332134244>

T-4-127– Regulation of Nitrification and Urease Inhibitors under the *Fertilizers Act* and *Regulations*

<http://www.inspection.gc.ca/eng/1559571874195/1559571874523>

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