

2016 CANADIAN FERTILIZER PRODUCTS FORUM

OUTCOMES DOCUMENT

THE FARMER'S VOICE – AN END-USER PERSPECTIVE ON PRODUCTS

Gary Stanford, President, Grain Growers of Canada

The Grain Growers of Canada and its member organizations across Canada provide a strong national voice for over 50,000 grain, oilseed, and pulse producers. Gary Stanford, grain farmer and President of the Grain Growers of Canada, brought his perspective as an end user of fertilizer products. His presentation highlighted the importance of efficacy, safety, transportation, trust and social licence, and sustainability of fertilizer products to growers.

While making decisions on fertilizer purchases, a farmer takes many factors into effect. Prior to the removal of fertilizer efficacy from CFIA's mandate, federal inspectors provided assurance to farmers regarding the quality of fertilizer products. The absence of an efficacy program has generated concern from farmers and has decreased the level of trust in products. Programs such as 4R Nutrient Stewardship have provided guidance to fertilizer use that relate to efficacy, ensuring that fertilizer is applied at the right rate and timing to produce a good crop. Efficacy is linked to a growers' bottom line, to ensure a high quality and high yielding crop is attained. Fertilizers are a high cost input for growing crops; reducing the amount of nutrients lost keeps costs down while practicing good environmental stewardship.

The rise of technology has resulted in dramatic increases in crop yields; however, prices per crop have only seen marginal increases over the same timeline. Because of this, farmers need to follow with increased sustainability practices. These require safe transportation, storage of fertilizers, and sustainable use of the products. Environmental stewardship is built into farming practices, and comes down to traceability and trust of fertilizer products. Consumers trust farmers, and they are the best advocates for the industry to promote social license.

GLOBALLY HARMONIZED SYSTEM AND FERTILIZER CLASSIFICATION: ARE YOU READY FOR IT?

Jim Jenkins, Product Stewardship Manager, Agrium

Rich Adderley, Manager, Quality Control, Potash Corporation of Saskatchewan Inc.

The new Globally Harmonized System (GHS) standards are an international initiative to standardize the classification and communication of chemical hazards. The adoption of the GHS is having an impact on the reclassification, generation and communication of fertilizer product safety information in Canada and the USA.

There are several key impacts and issues pertaining to fertilizer products. Specific challenge points include:

- Misalignment of ammonia flammability ratings: GHS vs. National Fire Protection Agency (NFPA)
 - GHS classifications are based on inherent properties of a substance. Ammonia (16-25%) is classified a flammable gas, hazard category 2 (1 is the highest)
 - NFPA classifications, ammonia is level 1 (low flammability)

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- Changing the flammability classification has implications on insurance, fire code, and electrical code requirements throughout the supply chain
- GHS is the law; NFPA allows for interpretive flexibility through the code
- GHS classification criteria and definitions
 - Under GHS, hazard classification criteria are defined by the concentration in the product, not by the exposure risk. Products with > 0.1% of respirable silica are classified as a carcinogen. For mined materials, it is very important to evaluate sources of crystalline silica, and consider the impact of handling the final product.
 - New hazard classification for eye irritancy as a health hazard; definition affect many common fertilizers such as urea and potash
 - Dust; definition slightly different in Canada vs. USA
- Safety Data Sheets (SDS)
 - Under GHS requirements, fertilizer blends or mixed products must have their own SDS, covering the combined hazards of the product components. The onus is on downstream supply chain players, eg. at the retail level, to supply SDS for blended or mixed products. A single SDS can be made for a range of fertilizer blends that fall within a common hazard classification.

Canada is phasing in the requirements of GHS and Safety Data Sheets (SDS) between May 31, 2017 to Dec 31, 2018 for manufacturers and importers, distributors, and employers. By June 1, 2017 manufactures and importers must be compliant with GHS and SDS (Table 1).

Phases	Timing	Manufacturers and Importers	Distributors	Employers
Phase 1	Up to May 31, 2017	CPR or HPR	CPR or HPR	Consult FPT OSH regulator
Phase 2	June 1, 2017 to May 31, 2018	HPR only	CPR or HPR	CPR or HPR
Phase 3	June 1, 2018 to Nov. 30, 2018	HPR only	HPR only	CPR or HPR
Completion	Dec. 1, 2018	HPR only	HPR only	HPR only

Table 1: Timeline for Canadian implementation of GHS and SDS requirements. CPR (Controlled Products Regulation); HPR (Hazardous Products Regulation); FPT (Federal-Provincial-Territorial); OSH (Occupational Safety and Health)

INDUSTRY CODES OF PRACTICE: ACTIVITY UPDATE

Giulia Brutesco, Senior Director, Industry Standards, Fertilizer Canada

Fertilizer Canada has been working with the industry to implement the Ammonium Nitrate and Ammonia Codes of Practice (COP) as part of the initiatives towards the safe and security handling, transportation, storage and use of products.

The agricultural ammonium nitrate COP was established in 2014 and revised in 2016 to consolidate existing regulation and include best practices for transport, storage, handling and use of ammonium

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nitrate to achieve safe and secure use of the product. Audits for certification have resulted in over 90% of facilities certified or with a compliance action plan. Fertilizer Canada continues to work towards distinguishing Ammonium Nitrate-based fertilizers captured under the regulations such as Calcium Ammonium Nitrate and Ammonium Nitrate blends. Other challenges stem from aligning definitions for ammonium nitrate fertilizers with regards to dangerous goods and storage regulations.

Through recent revisions, Fertilizer Canada's anhydrous ammonia COP continues to enhance the safety and security of the industry through a number of key revisions. There are currently 389 Canadian facilities certified under the anhydrous ammonia code, which are audited every two years. A quality assurance / quality control program was implemented in 2015 to verify compliance with the COP between audits. Recent updates to the code include new and revised sections to incorporate new safety features (ie: bleed-off containment), and further definition and clarity for WHMIS implementation and maintenance schedules. The 2017 revision of the Code will come into place January 1, 2017.

ISO/TC 134 (FERTILIZERS AND SOIL CONDITIONERS) WORKING GROUP UPDATE

Jim Jenkins, Product Stewardship Manager, Agrium

The ISO technical committee (ISO/TC 134) for fertilizers and soil conditioners includes standard development for inorganic and mineral fertilizers, organic fertilizers and soil improvers, mineral soil amendments, as well as vocabulary, marking, sampling, and statistics. The ISO technical committee consists of technical experts from over 32 countries to ensure international industry practices and quality standards and measurements for the industry are represented across all continents. The scope of the ISO/TC 134 includes inorganic or mineral fertilizers, organic fertilizers and soil improvers, fertilizer definitions markings and labelling, and liming material standards.

The Canadian Mirror Committee to ISO/TC 134 expanded the committee of technical experts by three members in 2016. The group is providing input into progressing existing standards and new items to develop harmonized international standards. Additionally, Fertilizer Canada hosted the ISO/TC 134 international technical committee meeting in Ottawa, ON in June 2016. Twenty-six technical experts from around the world gathered in Ottawa for the meetings, with delegates representing Canada, USA, Switzerland, France, Spain, Netherlands, China, and the Islamic Republic of Iran.

REGULATORY IMPLICATIONS OF SELENIUM WORKING GROUP (RISeWG) UPDATE

Daniel Bechtel, PR Tox Consulting Inc.

The Regulatory Implications of Selenium Working Group (RISeWG) was formed after the 2015 CFPPF to understand and address the possible implications of the Screening Assessment Report of Selenium and its compounds as part of the Substance Groupings Initiative of Canada's Chemicals Management Plan (CMP). The [Risk Management Scope](#) outlines options under consideration by Environment Canada and Health Canada to address the ecological and human health concerns identified for selenium and its compounds.

The RISeWG was formed in early 2016 to discuss and make recommendations on regulatory issues around Selenium content of fertilizers and fertilizer supplements. Agricultural inputs of selenium are not currently ranked at a high level of concern to the environment. The aquatic environment is identified as the most sensitive for selenium inputs.

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The RISEWG consisted of 18 technical experts representing industry, government, consultants, etc. The RISEWG reviewed draft of agricultural inputs of selenium to determine if there was management action to be taken for this sector. The working group developed an agriculture-related selenium database containing related materials and publications, managed by Fertilizer Canada. Through the RISEWG, a group of resourceful individuals are able to provide expertise and contribute to future investigations in selenium risk from agricultural sources, and the importance of selenium in agriculture.

REGULATORY FORESIGHT DISCUSSION: SUMMARIZING THE TOP 10 REGULATORY ISSUES FOR THE INDUSTRY

Moderated by Peter McCann, Chair CFPF

Members of the CFPF were encouraged to submit their top regulatory concerns to be addressed at the Forum. Submissions were combined into common themes to generate a ‘Top 10’ list of industry regulatory concerns to discuss at the Forum. During the session, CFIA and PMRA responded to the concerns and revisited the relevant topics that were addressed during the CFIA Fertilizer Regulatory workshop on Day 1 of the Forum.

- 1. Licensing of Facilities:** The discussion of licensing of facilities followed the presentation *Overview of Agency Transformation Initiatives – Future State of the Fertilizer Program* by CFIA staff during the Fertilizer Regulatory Workshop on Day 1 of the CFPF. The CFIA distributed a questionnaire to industry, *Licensing in the Fertilizer Sector: Readiness Assessment*. The industry provided general and cautious support to the concept of licensing facilities, noting the importance for continued communication from CFIA on the status and details of proceeding as they come available.
- 2. Electronic Submissions:** Ensuring that the electronic submission platform is comprehensive and designed for all divisions. It is important for CFIA to communicate the status and timeline of changes to submissions to an electronic platform with adequate consultation and notice.
- 3. Reducing turn-around time for applications:** Industry expressed concern with the pre-submission consultation process currently in place, indicating that the process was not timely and without service delivery standards. Suggested clarifications included the re-classification of major and minor amendments to registrations, labelling concerns, and increasing the efficiency of the notification system to implement simple changes. CFIA discussed many of these concerns in the *Fertilizer Program Updates – Service Delivery and Regulatory Modernization* presentation during Day 1.
- 4. Updating information sheets to provide guidance:** CFIA address several issues related to maintaining updated guidance documents and resources in the *Fertilizer Program Updates – Service Delivery and Regulatory Modernization* presentation during Day 1. The discussion addressed concerns with providing updated T memos, maintaining Schedule II records online, and ensuring policy documents and archived documents are updated and current with regards to CFIA’s mandates.

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5. **Research Authorizations:** Concerns around the requirements of research authorizations was discussed. Further guidance was requested from CFIA to help determine what information is required to request a research exemption, in the form of a checklist and/or guidance document, particularly needed for novel products. CFIA noted that the trade memorandum T-4 103 is currently under review.
6. **Review other Department's processes' for applicability to fertilizers:** Several concerns were raised regarding other departments and their alignment with the fertilizer regulatory sector. During the Fertilizer Regulatory Workshop, the Pest Management Regulatory Agency (PMRA) presentation *Dual Registration under the Fertilizers Act and the Pest Control Products Act* addressed some concerns and prompted discussion related to:
 - a. Products falling under PMRA's jurisdiction are exempt from WHMIS regulations (June 2017)
 - b. There is no equivalent to PMRA's "no safety concern" list of products; CFIA noted that Schedule II will incorporate List of Primary Materials incorporated by reference
 - c. A CFIA-PMRA Working Group is developing a joint regulatory mechanism for supplement-pesticide products. The WG aims to publish a guidance document outlining which agency should be consulted for each product category. There are industry concerns regarding the degree of consultation, particularly to provide input into nitrogen management products such as nitrification and urease inhibitors assigned under PMRA's jurisdiction (if the mode of action is against soil microbes or enzymes released by them).
7. **Globally Harmonized System (GHS) Classification (anhydrous ammonia):** The flammability classification for anhydrous ammonia under the new GHS requirements conflicts with the National Fire Protection Association (NFPA) flammability classification. This has a potential impact on distribution outlets, signage, and facility safety infrastructure. The issue was raised during the Forum presentation *Globally Harmonized System (GHS) and Fertilizer Classification Are You Ready For It?*
8. **OSHA and Health Canada limits:** A concern was submitted regarding the lower limits on respirable quartz silica from Occupational Safety and Health Administration (OSHA) and Health Canada. Products with greater than 0.1% respirable silica will require a carcinogenic classification.
9. **Canadian Chemical Management Plan (CCMP) Review of Boron Compounds:** the CCMP review of boron compounds recently produced a draft screening assessment report. Implications of the CCMP assessment could impact safety relevance to boron-containing micronutrient fertilizers and impact the source of boron used in end products.
10. **General Concerns and Communications with Industry:** Several additional concerns submitted were related to general communications between government and industry that affect the fertilizer regulatory sector. These included:

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- a. Communicate regulatory changes in a timely manner as they are made, e.g.:
Boron caution statement
- b. More effective policing of unregulated and/or improperly labelled products on the marketplace
- c. Efforts to effectively communicate quality products in the absence of the fertilizer efficacy programs
- d. Alternatives / replacements for Letters of Free Sale (LFS) and Letters of No Objection (LONO); CFIA noted that the LONOs have been suspended to minimize risk of backlog re-emergence due to file volumes.