

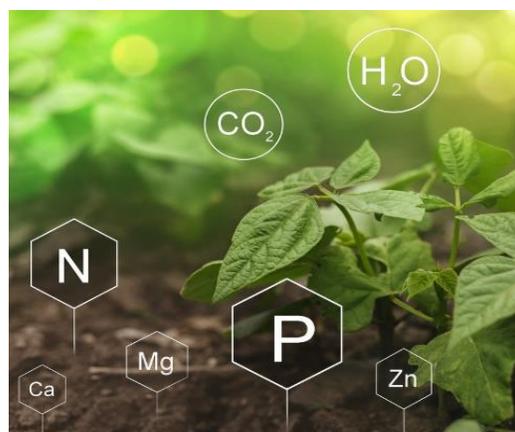
September 10, 2020

Countdown to the publication of the 2020 Canadian Organic Standards
The weekly preview

Solving P shortage on organic farms

Recycling P from livestock urine

The content of the Canadian Organic Standard (COS) is enriched by technological advances and scientific research. A perfect example of this is the addition of struvite (magnesium ammonium phosphate) to the Permitted Substances Lists (PSL). The COS 2020 will allow struvite that has precipitated out of livestock urine to be used as a soil amendment. This change reflects the findings of long-term studies on the depletion of phosphorus on organic farms and more recent developments in the production of struvite.



On organic farms, particularly in the Prairies, the availability of phosphorus (P) may be a limiting factor to the long-term productivity of the farms. Rock phosphate is the main source of P but it is a finite, non-renewable resource which might be depleted in the near future. Also, the P contained in rock phosphorus is not readily available to plants.

Important role of P

“Phosphorus stimulates root growth, promotes the maturity of crops, and stimulates seed production. When soils are low in phosphorus, crop yields suffer and, ultimately, so does the farmer’s bankbook.

“Phosphorus (P) is one of the most challenging nutrients for both plants and farmers to use. Of all the phosphorus deep in fertile fields, only a fraction exists in a solubilized, plant-available form.”

Extract from [CATCH P IF YOU CAN](#)

One way to solve the P shortage is to stop flushing away and recycle the phosphorus contained in livestock urine. In 2016, the [Expert Group for Technical Advice on Organic Production](#) concluded using struvite as a fertilizer should be considered to be in line with the objectives, criteria and principles of organic farming (however this is not specifically covered by the current EU Regulation). Likewise, the CGSB Committee on organic agriculture also explored the potential of struvite during the recent COS review.

Struvite from human urine will not be allowed because, as with sewage sludge, which is also prohibited, there are concerns over contamination by pharmaceuticals, harsh cleansers and other substances flushed into the sewage stream. However, unlike sewage sludge, it is highly unlikely that struvite from humane urine would be contaminated because the process of precipitation renders a relatively pure mineral, according to Dr. Kimberly Schneider. She co-leads a research activity on the use of struvite as a crop amendment under the Organic Science Cluster 3 project.

Despite this, members of the Technical Committee on Organic Agriculture considered that there may be public concern, albeit unfounded, over potential contamination. Considering that research is currently being conducted on the use of struvite on organic farms (see podcast below), the use of struvite will likely be reviewed again in 2025.

☞ The revised clause ☞

Table 4.2 - Substances for crop production

Struvite (magnesium ammonium phosphate)

Allowed if made from biological sources, including plant and plant by-products or livestock manures. Prohibited if made from sewage sludge.

All sources of magnesium are permitted in the manufacturing process.

Levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury shall not exceed the limits (category C1) specified in *Guidelines for the Beneficial Use of Fertilising Residuals*. Shall not cause a build-up of heavy metals or micronutrients in soil.

Organic production systems: Permitted substances Lists. CAN/CGSB-32.311.

Draft approved August 4th, 2020 by the CGSB Technical Committee on Organic Agriculture



Dr Kimberley Schneider and her colleague Dr Henry Wilson are conducting a unique research activity using struvite derived from wastewater to address the phosphorous deficit in certain organically managed soils and to provide a renewable source of phosphorous. [Listen!](#) or [read!](#)

An ambitious action plan for the development of EU organic production

Under the European Green Deal, the EU has set an ambitious target for 2030:

- at least 25% of EU agricultural land to be farmed organically
- a significant increase in organic aquaculture (fish farming).

This action plan will help consumers, farmers, business operators, national governments and local authorities to reach this target. It will:

- drive investment and innovation in sustainable farming
- respond to increased consumer interest in organic food
- boost demand for organic food.

Anyone can provide feedback!

[Read more](#)

Subscription for all to the CFIA's Canada Organic Regime Newsletters



The Canada Organic Regime is managed by the Canadian Food Inspection Agency. You are invited to sign up for the CFIA's email service to receive updates on the Canada Organic Regime and organic requirements.

Simply click on the following link:

<https://www.inspection.gc.ca/english/util/listserv/listsube.shtml>



Canada's National Organic Week is the annual celebration of organic food, farming and products across the country.

Hundreds of individual events showcase the benefits of organic agriculture and its positive impact on the environment.

[Celebrate the Organic Week!](#)