

FERTILIZERS EUROPE

OPPORTUNITIES IN THE EU NUTRIENT LEGISLATION:

WHAT TO LOOK OUT FOR

3 MAY 2016 - SCOTLAND HOUSE CONFERENCE CENTER Robert Schumanplein 6, 1040, Brussels

SESSION I: "NEW FERTILIZERS REGULATION: SETTING THE SCENE"

1. Quality first: The views of the industry, Javier Goñi del Cacho (President, Fertilizers Europe)

Quality Fertilizers= Clear agronomical value

- Ensure minimal environmental impact
- Distinction of fertilizers from crop protection subs that have no nutritional value
- Communication with downstream users

Limits on contaminants have to be achievable with current technologies and guaranteeing the stability of market.

The new fertilizers regulation needs to be the framework for quality fertilizer production and distribution.

Cd:

- It is necessary to put a limit on Cd for fertilizers
- lowering limits below 60mg are not a viable option
- A substantial part of P-fertilizers would have to be removed from market
- The prices will increase favoring imports from outside EU
- Destabilize the EU market!

Controlled-release fertilizers:

- New biodegradability requirements have no scientific data to back-up
- Need proper risk assessment prior to adopting specific criteria in the regulation

FE agrees that the new regulation will improve:

- Labeling for CMR substances
- Incentives for innovation
- Recycling and nutrient recovery = fertilizers Europe's Infinite Fertilizers

2. Familiarizing with the new regulatory framework for fertilizers, Reinhard Büscher (Head of Unit, Directorate-General Grow, European Commission)

Deadline to submit comments for the regulation is until 12th of May

The goal of this regulation is to create a more competitive and quality market for fertilizers by:

- Optional harmonisation: producers can choose under how they introduce their products into

the market

- REACH registration for chemical substances will still be required
- Maintaining Safety requirements for ammonium nitrate fertiliser

Better regulation:

- Broaden the scope: Level playing field = harmonisation of all products for plant nutrition
- No legal uncertainties (fertiliser, waste, animal by-products, PPPs)
- First-time EU legal framework for nutrient recovery and recycling
- Strict safety rules (heavy metals & plastics) for CE marked fertilisers

3. Enabling resource-efficient farming in Europe by closing the loop, Arnaud Petit (Director of Commodities & Trade, European farmers & Agri-cooperatives - Copa-Cogeca)

Fertilizers represent 40% of the cost for the farmers.

Farmers would like to rely more on organic fertilizers, and this will be possible with the new regulation.

Farmers need high investment to develop new techniques for recycling and decontamination. Slow release fertilizers are used due to the stricter irrigation and spreading rules, so the biodegradability requirements of this new regulation should be revised.

Q&A session

(I): Cd limits have no risk assessment of scientific background to be justified

(I): We need specific requirements that allow the use of slow release fertilizers, the criteria adopted by the commission is not reliable. There is not enough time to research for new coatings and these products are very necessary to downstream users.

(RB): This is not the proper way of thinking. Cd is a contaminant, no nutritional value = shouldn't be in the fertilizers at all. The limits will be an incentive to develop new decadmiation technologies. Same for the slow released fertilizers, the coating is plastic = should not be in the soil. The accumulation of plastics in soils is very high and these products only represent a small minority in fertilizers.

SESSION III: LAUNCHING THE DEBATE ON FERTILIZATION (4 BREAKOUT SESSIONS)

1. Cadmium in phosphate fertilizers: Economic and Technical Aspects, Antoine Hoxha (Technical Director, Fertilizers Europe)

AH presented the issue in 3 parts to later organize the discussion:

- a) **What does science say? What is the scientific background available and studies on Cd?**
- b) **Phosphate fertilizers in EU**
- c) **What is the status in decadmiation techniques?**

a) Cd is a carcinogen, mutagen and reprotoxic substance and the most frequent exposure routes for humans are via tobacco and food. It has also severe negative effects to the biodiversity of aquatic and terrestrial organisms.

In 2002, SCHER released a forecast on accumulation of Cd in soil that predicted that for 60mg Cd/ kg P₂O₅ = accumulation, and for 20mg Cd/ kg P₂O₅ = no accumulation of Cd in soils overtime. (Smolders study)

In 2008, Commission released the final assessment in line with SCHER forecast, so Fertilizers Europe contacted Smolders to review the study with more recent data and better modeling parameters.

His new study concluded that for a concentration of 80mg Cd/ kg P₂O₅ there is no predicted accumulation of Cd in soils after 100 years of application of inorganic P fertilizers. The study was submitted to SCHER and they released their official opinion in 2013 approving the new results.

However, for the new fertilizer regulation the commission has not taken into account SHER's opinion.

Comments: (from Industry to Vincent Delvaux, DG Grow)

(I): A new study on accumulation of Cd in soil is unlikely to be made, Smolders will however review SCHER's report to be sure all his research was properly assessed.

(I): The Com. doesn't take into account the initial levels of Cd already present in the soil which differ from country to country.

(I): There is not a proper risk assessment for Cd nor a reliable study to determine the uptake of Cd and evolution through the supply chain to relate it to the intake limits for humans in food = only way to limit it is by measuring accumulation in soils?

(I): A specific limit on Cd does not guaranty the tolerable Cd intake limits = needs a thorough risk assessment

(VD): a thorough risk assessment is not foreseen in the near future

(VD): Timeline 2018 = 60mg Cd/ kg P₂O₅, 2021 = 40mg Cd/ kg P₂O₅, 2024 = 20mg Cd/ kg P₂O₅

(I): Cd is a contaminant = ALARA principle needs to be applied

(VD): Not applying ALARA principle since innovation needs to increase, the limits are ACHIAVABLE!

(I): The increase of the prices will not affect the producers but the farmers! And making EU

products not compatible.

b) Sources of P for fertilizers in EU come from 2 forms of phosphate rock (45% of P₂O₅), from igneous rock (Finland, Russia, South Africa) with low Cd content, and the majority from sedimentary rock where the Cd levels are higher. The other 65% of the P₂O₅ comes from P-acid or recycled materials.

(I): How were the limits of 60 mg/40 mg/20 mg chosen? There wasn't a proper analysis of the Cd content in fertilizers across EU.

(DG): It's not up to the Com to analyze all fertilizers, Fertilizers Europe should have done the analysis and shared the results with the Com. For the impact assessment some fertilizer were analyzed and the conclusion was that Cd averaged 40 mg in fertilizers across EU.

c) Decadmiation process:

Decadmiation of phosphate rock: Calcination at about 1000°C. Heating millions of tons of rock to high temperatures is not an economically viable or environmentally safe method.

Decadmiation through the nitrophosphate process: several techniques can be used (Co-crystallization, Sulfide precipitation, Ion exchange) but only at laboratory scale.

(VD): The economic impact was thorough. They expect a 12-32€/ ton P₂O₅ increase of the prices (for a final concentration of 60 mg, and for a starting material of low Cd content!)

(I): FE estimates an increase of 50€/ ton P₂O₅.

(I): there are some de-Cd techniques being developed for P-rock but none viable for the nitrophosphate route which represents 30% of P₂O₅ production in EU.

(VD): A limit of 40 is more than reasonable

(I): with a limit of 40 mg, 50% of the current P-fertilizers would be out of the market

(I): Even with a limit is 60, the industry has to produce the fertilizers with a margin so commercialize with ~50-40 mg.

(I): the average of CD in fertilizers today is 50 mg which is in the depletion zone of accumulation in soil!

(I): Organic farmers have a limit of 90mg why shouldn't they comply why the same limits?

(VD): In the future revision of the organic farmers practice they will have to follow the same limits

(I): the industry needs high investment for decadmiation, 50% doesn't pass the 40mg limit. And this is only for the P-rock. For the nitrophosphate route there is NO viable method!

(I): What happens with the CD removed from the P? There is NO market for it, the industry would need to pay to get rid of it and this is not included in the impact assessment.

(I): These limits will only fragment the market for fertilizers: the lower the Cd the higher the price and the demand will depend on initial content of Cd in the soils!