Proceedings of the Workshop on Reforming Single Market for Fertilising products

Study for the IMCO Committee

2017
Proceedings of the Workshop on Reforming Single Market for fertilising products
Brussels, 12 October 2016

PROCEEDINGS OF THE WORKSHOP

Abstract
The workshop organised by the Policy Department A for the IMCO Committee aimed at discussing the revision of the fertilisers’ regulation proposed by the European Commission and its possible implications for producers, farmers and other users. It allowed exchange of views on the new regulatory proposal.

This document was prepared by Policy Department A at the request of the Committee on Internal Market and Consumer Protection.
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1. EXECUTIVE SUMMARY

The workshop held on 12 October 2016 at the European Parliament in Brussels, dealt with the European Commission’s proposal for a regulation laying down rules on making CE marked fertilising products available on the market and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009. The discussion included the possible implications of this regulation for producers, farmers and other users.

As explained in the Commission’s note on the proposal, there are two main objectives of the new regulatory framework. The first one is to remove the barriers for innovative fertilising products in accessing the internal market due to the existence of diverging national rules and standards. The second one is to address environmental concerns arising from contamination by EC-fertilisers of the soil, inland waters, sea waters, and ultimately food.

The workshop, chaired by Mr Adam Szejnfeld (MEP), was divided into a panel on achieving the right balance on the European market for fertilising products through the new regulatory framework and a roundtable that presented the market participants’ views on the new regulatory framework.

After a short introduction by the Chair, the panel on achieving the right balance on the European market for fertilising products through the new regulatory framework started. The purpose was to provide a general introduction to the current status of fertilising products within the EU and the status of the new proposed regulatory framework.

Following a short Q&A session, the roundtable on the market participants’ views on the new regulatory framework started. Within this roundtable, further presentations were received from various stakeholders concerning the assessment of the Commission’s proposal and suggestions of its modification. The presentations were followed by a further Q&A session that allowed representatives of the industry to express and exchange opinions.

There was general agreement that legislative action at the EU level is required, as the absence of common standards relating to fertiliser products impedes trade on the internal market. Nevertheless, many specific regulations of the draft proposal came under criticism. Concerns were raised about the terminology applied, the scope of obligations introduced on the industry and the limits of certain components established in the draft regulation. Thus, while the need to amend the regulatory framework of fertilisers was recognised, and benefits of the Commission’s proposal were identified, a number of issues that need to be resolved were identified.
2. WORKSHOP PROCEEDINGS

2.1. Introduction to the workshop

Mr Adam Szejnfeld (MEP) opened the workshop by welcoming the initiative and presenting the experts. Mr Szejnfeld (MEP) explained that the European Parliament, alongside the Council, is planning the introduction of a regulation on fertilisers within the internal market, with EC labelling, which means changing Regulations 1096/2009 and 1207/2009.

Mr Szejnfeld opened the first part of the workshop, stressing its importance in light of the overall European policy. As the MEP said, this is not actually part of the European policy, but of the global policy. The sustainable development of the society requires a proper assessment of every area of economy. The subject of the workshop constitutes only a small part, but a very important part, because agricultural economy needs to be very efficient and it needs fertilisers to be effective. At the same time, there are also food safety concerns and environmental protection to be borne in mind. These are the issues that must be considered when talking about fertilisers. Mistakes by legislators can have a very negative impact on the people’s lives in this area. As politicians, Mr Szejnfeld (MEP) said, we need to come up with legislation that allows for keeping the environment healthy, while making sure that the agricultural economy is not jeopardised. A good balance is needed here.

Then Mr Szejnfeld (MEP) introduced the first speaker, Professor Justus Wesseler.
3. Panel 1: Achieving the right balance on European market for fertilising products through the new regulatory framework

3.1. Professor Justus Wesseler: Economist’s view on the regulatory framework in the area of fertilisers

Beginning his presentation, Professor Justus Wesseler stressed that the discussed issues are relevant not only for the EU but also globally.

Professor Wesseler started by presenting a theoretical relationship between the quantity of products on the one hand, and the benefits and costs at the marginal level on the other, to show the influence of regulatory measures on the market. Having these, it is possible to establish the optimal level of production from a social point of view. It lies where the line of benefits at the marginal level crosses the line of costs at the marginal level.

Such a perspective, however, ignores some negative effects for society, such as effects of an environmental nature. Such negative implications tend to be internalised through the introduction of taxes to reduce the use of fertiliser so that the marginal social cost would be equivalent to the marginal private benefits, leading to an optimal solution for society. Then the optimal level of production would reduce the function of increasing costs. Nevertheless, many negative environmental implications are already internalised through other regulatory measures. The market outcome might, therefore, be already positive from a social perspective. For that reason, introducing a new regulatory measure requires previous research to ensure that the social costs have not been internalised in other EU environmental regulations, and to see whether the additional regulation would be justified from the economical point of view.

New regulatory measures increase the sunk production costs that appear before the production process. Commenting on a graph that presented the value of opportunities and the relation between the sunk production costs and benefits, Professor Wesseler said that, according to economic theory, it is important not to produce immediately where benefits equal costs, but to have a higher threshold level for the benefits (point V1 on the graph). From an economic perspective, benefits have to exceed the costs to invest in new technologies. If the regulatory costs increase, then the optimal level of investment increases. It means that more additional benefits are necessary to justify an investment in the new product. One additional unit of regulatory costs requires more than one unit of extra benefits from an economic perspective. Therefore, regulatory costs can have more than a normal effect on investment behaviour in the private sector, and with this can affect economic performance, for example of the circular economy.

Describing the current situation on the fertiliser market, Professor Wesseler pointed out their significance for the crop increase: about 60% over the past 50 years. All inorganic fertilisers generally have more nutrients per volume than organic fertilisers. The fertiliser market produces 20 to 25 billion Euro annual turnover, generating about 95,000 to 100,000 jobs. One per cent of the EU gross-value added, and it requires a work force of 0.2 to 0.3 per cent of the overall workforce in the EU.
As far as the inorganic fertiliser market is concerned, Professor Wesseler indicated that there is not much concentration at EU-level. Addressing the gross-nutrient balance of phosphorus use in agricultural land, he stated that in some MS, such as Belgium or Norway, the phosphorus concentration is much higher than in other regions, for example Finland. A similar situation appears in the case of nitrogen. Countries like Belgium, the Netherlands and Norway have high nitrogen use in agriculture, whereas other regions use less nitrogen in their farm production. Mr Wesseler pointed out the share of fertiliser use by nutrient in MS as being very interesting. The highest share was registered in Bulgaria, and the lowest in Italy. However, one has to be careful when analysing these numbers as they do not present the total quantity, just relative shares.

Professor Wesseler went on to present average fertiliser costs. Ireland has the highest share in the period 1989 – 2009, and also in 2004 – 2012, whereas in the second period the share went down, as in the rest of the EU. From an environmental perspective, this might be a positive development, as it may indicate that the use of fertilisers went down.

The previous study for the Parliament reached the conclusion that the concentration on the inorganic fertiliser market is very small, and therefore did not result in price increases. The estimated concentration index was between 205 and 302, whereas, according to the Commission, generally indexes over 1000 could raise concerns from the EU competition law point of view.

Then Professor Wesseler moved to organic fertilisers, presenting sources of nitrogen inputs in EU agriculture. The share of organic fertiliser is relatively small, he said, as there are only a few countries where it is more peaked, like Greece and Latvia. On average, however, the use of organic fertilisers across the EU is below ten per cent.

Subsequently, Professor Wesseler commented on the internal fertiliser trade, indicating that inorganic fertiliser is much more traded than organic fertiliser. The leader in internal trade in organic fertiliser is Italy (export: 171 million dollars and import: 44.5 million dollars), followed by the Netherlands. The share of these two countries is considerably larger than that of the other MS. Germany and a few other countries export approx. 30 million dollars, while the role of the remaining MS is almost negligible.

Professor Wesseler explained that the level of regulation is not the only reason influencing this low popularity of organic fertiliser. The speaker mentioned other reasons. First, organic fertiliser is more bulky than inorganic fertiliser, and therefore the relative transport costs are much higher. Second, the price per nutrient content is sometimes higher for organic fertiliser. Third, local suppliers in some regions are sometimes lacking, and that particularly concerns large farms. Fourth, there are differences in the use of machinery in organic fertiliser applications. The last potential factor mentioned by Professor Wesseler was a decreasing number of animals. Summarising these reasons, the speaker underlined that inorganic fertiliser is easier to transport and to apply, and has a relatively stronger immediate effect on yields, while organic fertiliser is bulky and it can also be substituted by using, for example, green manure or intercrops such as mustard, rapeseed and other crops.

Finally, Professor Wesseler moved on to discuss the potential effects of the new policy. First he stressed that some effects are difficult to assess, such as the size of the potential environmental and health problem. A lot of scientific information in this area is missing, for example what level of cadmium would actually be justifiable, taking into account the environmental, medical as well as economical point of view. The trade effects of harmonised
and non-harmonised regulations in the EU are also very difficult to assess, because there are many small-scale producers in this sector. As Professor Wesseler emphasised, further detailed investigation is necessary.

From an economic point of view, the most efficient solution could be to agree on standards. This standard might perhaps be lower in some countries and higher in others. The main advantage of the harmonised standard would be the possibility to adjust it at a regional level. This method is used in a number of other regulatory frameworks, e.g. nitrate regulations. The adjustability of the standard at the regional level is particularly important taking into account diverging soil composition in different regions. According to the speaker, there is a great opportunity to formulate the standard, monitor its functioning and potentially adjust it over time, based on the experiences from its application. Lastly, Professor Wesseler stressed that, taking into account the dynamics of the fertiliser market in terms of the circular economy characterised by the constant emergence of new by-products from biorefineries, there is no time pressure to take action as quickly as possible. What is more important, is to take the time to think more about the appropriate policy.

3.2. Prof Erik Smolders: Scientific aspects underlying the regulatory framework in the area of fertilisers – state of play and future reforms

Professor Erik Smolders started his presentation by explaining that his talk is limited to the cadmium limits in phosphate fertilisers which constitutes only part of the discussed regulation. Professor Smolders is involved not only in research on cadmium but also on regulations, initially as a Belgian rapporteur for the EU-wide cadmium risk assessment project. In 2002, he summarised the views of the MS and the EU on the issue of cadmium in fertilisers for the Commission. These views have been presented in a document concerning the 60 - 40 - 20 limits, whereas Professor Smolders continued researching this problem.

Professor Smolders stressed that his focus is on the science, and not on the political consequences. All soils in Europe contain cadmium, including natural cadmium. This chemical element is present practically everywhere, including food and water. In particular, phosphate fertilisers made from rock phosphate contain cadmium. The cadmium in rock phosphate remains, after purification into fertilisers for the market, in the phosphorus and the ratio of the cadmium to phosphorus remains almost identical. Therefore, it is possible to analyse where the fertilisers come from, as there are large differences in cadmium concentrations in the rock phosphate depending on the origin. Further, there are many variations in the concentration of cadmium in the fertilisers. When analysing fertilisers coming from various MS, there is a large difference in the average concentrations, depending on the rock phosphate they are made from.

Then professor Smolders discussed the effects of adding phosphate fertilisers to the soil. The increase in cadmium cannot be detected within one year. Long-term observations are required, because the quantity added with the fertiliser is still relatively low, taking into account the cadmium content in the soil. Professor Smolders referred to an investigation made by the oldest research station in Europe, based near London, which has collected soil samples since 1840. In 1987, a landmark paper on the cadmium content in soil was
published, confirming that the cadmium concentration had generally increased, and most significantly in phosphate fertilised soils. The publication of this paper initiated a discussion based on the assumption that the increased amount of cadmium would eventually end up in food products. This assumption would be correct, provided that that all other factors remained identical. Most of the cadmium that humans have in their bodies comes from wheat, potatoes or rice. While cadmium concentrations in wheat rose between 1920 and 1980, one recent paper showed a decrease. Professor Smolders underlined, however, that the regulation is still necessary, as the overall trend may not be reliably detected. He compared the variability of cadmium concentrations with the variability of global temperatures, causing so much debate over climate change. As cadmium concentrations are highly variable, the underlying trend is very difficult to trace.

In 2006, the EU decided to conduct a risk assessment concerning cadmium exposure in foodstuffs for the EU population. The Commission came to the conclusion that it is very difficult to establish the risk level. It is not possible to establish, for example, the number of people who die from consuming cadmium coming from fertilisers. In 2002, the Commission proposed a regulation opting for a “standstill” principle, rather than reaching an agreement on the risks.

Professor Smolders questioned the possibility of establishing a level of cadmium that could be tolerated in fertilisers in order not to have any further increase of cadmium in the soil. This question has to be answered using mass balances and taking into consideration various sources of cadmium. In 2002, Professor Smolders was a member of an expert committee that formulated a mass balance proposal for the 15 MS, and later he prepared a report for the 28 MS. The investigation proved that there is, on average, a decreasing trend in the cadmium concentration in soil, which places slightly less of a burden on the cadmium problem as such. Moreover, the input of cadmium is only a few grams, while it was five or ten times as much in the past. The reason for this is that the usage of inorganic fertilisers and the atmospheric deposition cadmium has declined enormously, especially due to the EU’s strict policy on atmospheric emissions. Leaching is also a significant factor.

Professor Smolders stressed that this is only conclusion for the average situation, and that territorial variability might be observed. For example, in Poland, there is still the highest atmospheric deposition of cadmium. The territorial variability concerns not only exposure to cadmium, but also the already present concentration of cadmium in the soil. In Spain, on the other hand, soils contain very little cadmium and any incremental increase is proportionally higher than in soil that contains more cadmium. This territorial variability is present for all parameters of the mass balance.

Next, Professor Smolders presented the outcome of his research on the effect of phosphate fertilisers to cadmium accumulation in European agricultural soils, conducted in 2002 and updated in 2013. The research was conducted for three fertiliser cadmium concentrations: 20, 40 and 60 mg Cd/kg P₂O₅, and concerned the predicted change in soil cadmium in European agricultural soil after a 100-year application of inorganic phosphate fertilisers with varying cadmium concentrations. The possible change in the concentration of cadmium in soils for each limit of 20, 40 and 60mg/kg P₂O₅ has been presented on the graph with an error bar, on which the means (most probable scenarios) have been indicated with circles, where the ranges are the 10-90th percentiles of different soils in Europe. According to the analysis conducted in 2002, in the case of the 60 mg limit there would be, on average, an increase in the concentration of cadmium in European soils. In the case of the 20 mg limit, there would be, on average, no increase. After the presentation of the 2013 updated study, Professor Smolders was asked by the Commission to conduct further research and presented another slide showing the mass balance produced in June 2016. He explained how the graph should be read. For the 20, 40 and 60 mg/kg P₂O₅ limits, the cadmium balance will be, on
average, negative. The increase in cadmium concentration in soils will start, on average, approximately in the case of a 75 mg/kg P₂O₅ limit. However, a conservative person could say that there are possible scenarios where even a 20 mg/kg P₂O₅ limit leads to an increase in the cadmium concentration in European soils, because, as the graph shows, there is still a fraction that is increasing, and such a person would like to have all the European soils in a steady state. Professor Smolders, however, emphasised that, when taking the decision on the future regulation, it is important to remember that the risk that cadmium creates is related to its lifetime consumption. It is only the lifetime consumption that constitutes the risk factor. He stressed that it is unlikely for any person to eat food that is always produced in the very same soil, hence it is overly conservative to defend that the steady state should be reached in any soil in Europe because of mixing of food items grown in different regions, especially considering lifetime exposure. In contrast, the other extreme, i.e. only accepting the average, is also not fully defendable since the mixing is not complete. As sustainability clearly has to be ensured in many locations, the real gain lies in-between.

The last slide presented by Professor Smolders referred to an unpublished study conducted two years ago on the basis of samples of 400 phosphate fertilisers in the EU in an attempt to sample more from these countries where there is more phosphorus used, in order to have a good weighed average value. He presented the results of this survey in the following way: if one takes the 60 mg/kg P₂O₅ limit, about 8% of those 400 samples exceed the proposed limits In the case of the 40 mg/kg P₂O₅ limit, 31% of phosphate fertilisers are above that limit. Lastly, in the case of a very strict 20 mg/kg P₂O₅ limit, 56% – more than half of the phosphate fertilisers – are above the limit. Further, the weighted mean concentration, based on the consumption and the country-wise averages, was calculated, arriving at the number 32 mg/kg P₂O₅, which constitutes the weighted average of cadmium concentration in phosphate fertilisers in Europe.

Concluding, Professor Smolders emphasised that his research is based on an exposure assessment (stand still principle) and not on risk assessment, i.e. not calculating how many people are affected by cadmium consumption. The current proposal is based on the analysis of 2002. The speaker further indicated that the largest uncertainty in this approach is the impact of leaching, which could be overestimated and could lead to the consequence that the prediction would not be conservative enough. Professor Smolders underlined, however, that his team had tried to do their best with the best evidence, and the 2013 analysis shows that the input has decreased in the last 15 years, suggesting that the 2002 analysis is slightly conservative.

3.3. Mr Jacob HANSEN - Fertilizers Europe

On the first slide of his presentation, Mr Jacob Hansen presented a picture of fertiliser, explaining that fertilisers normally come in little granules that farmers spread on fields to assure the healthy growth of crops. Basically, nothing in fertilisers would harm a human; he would recommend against eating it, as it is not a good food, but it is not dangerous either.
Mr Hansen stressed that the fertiliser industry is big, which is confirmed by its 13 billion Euro turnover. The investment sector is also substantial (more than one billion Euro) because running fertiliser plants requires a lot of maintenance. The industry creates about 100,000 jobs, spread over all of Europe and not concentrated in specific areas.

As Mr Hansen said, even though it is commonly believed that the fertiliser industry is a mature one, at the moment it is going through a transition. Producers are moving away from simply producing agricultural inputs and are developing a lot of new and highly targeted fertilisers. The speaker referred to new technologies, like inhibitors that can reduce nitrous oxides in greenhouse gases in fertilisers, as well as new formulas that work in a very specific way on specific soils and specific crops. There are also positive developments in terms of precision farming, where GPS means that it is possible to fine-tune the spreading of fertilisers to plants and fields, to ensure optimal growth. Mr Hansen stressed that there are many positive developments in the sector, which have led him to conclude that the proposal of new regulatory measure is important, because it is necessary to support and further these positive developments.

In order to present the proper context, Mr Hansen pointed out that inorganic fertilisers constitute 80% of the total mineral fertiliser market by value. As the speaker claimed, recycling nutrients as new fertilisers will probably develop further, but it will not fundamentally change the general picture, and mineral fertilizers will continue to be the largest part of the sector. Mr Hansen explained that he is not against any recycling of nutrients, and the mineral fertiliser industry also uses some recycled products, but that their use depends on how they are treated, because they have to be received in a mineral form in order to be workable.

To prove that mineral fertilisers cannot be replaced, Mr Hansen presented a slide showing the participation of nutrients applied on farms. Mr Hansen stressed that the farmers’ contribution is frequently underestimated, whereas the vast majority of nutrients recycled are actually the farmers bringing out animal manure and slurry. However, the role mineral fertilisers is also very important.

Mr Hansen emphasised the need to take the proposal as an opportunity set things out properly for the future. The proposal, as a harmonisation measure, is currently in the IMCO Committee. The proposal is building a new regulatory framework where fertilisers are regulated through conformity assessments and a system of notification bodies. While this is a new process for the mineral fertilisers sector, it should not be very problematic. The only concern is that the process should not become too bureaucratic, because then the optimal economic point will not be reached.

Mr Hansen went on to note that the proposal introduces only a partial harmonisation. The harmonised fertilisers will exist alongside national fertilisers that can be present on a number of markets due to mutual recognition. This is an important aspect because, if the conformity assessment requirements are set too high for the harmonised fertilisers, then there is a risk that the sector will be dominated by national fertilisers and that no harmonisation will be achieved, contrary to the objective of the proposal.

Mr Hansen paid particular attention to issues he distinguished for their special importance. First, mineral fertilisers are defined in the proposal as a default category. Given the importance of the sector, this is an incorrect solution. In addition, the need for continued coherence and quality on the mineral fertilisers market calls for a different solution. Mineral fertilisers have to be based on materials that are in mineral form and have to have a
significant level of nutrients, because this is what makes mineral fertilisers stand out. The speaker firmly emphasised that this is crucial for ensuring the quality of products.

Second, Mr Hansen referred to the name of the category. The term “inorganic fertilisers”, as used by previous speakers, is a scientific term, while the term used on the market is “mineral fertilisers”. He requested Parliament’s help in changing this term, saying that farmers should not be confronted with new concepts by the European Parliament, when they know products as something else.

Third, Mr Hansen mentioned labelling and information for farmers, stressing that the mandatory labelling requirements in the proposal have very positive aspects. Now farmers and other users stay fully informed about the quality and the content of the products they buy. Complete information about the product content should be on the bag or in the accompanying document. At the same time, the speaker criticised the fact that the proposal requires that all uses and requested application rates should be on the bags, as fertilisers are used in many different contexts, in various amounts and on different crops, and therefore the bags are simply not big enough to contain all the information. He suggested a more modern approach, i.e. making use of the internet or QR-code to facilitate this process.

As a fourth issue, Mr Hansen referred to the danger of creating parallel markets. He stressed its importance and indicated that nothing illustrates this better than the maximum limit of cadmium in phosphate fertilisers.

Representing the industry, Mr Hansen accepted that cadmium in the food chain should be avoided, as well as the principle of setting a limit on cadmium in fertilisers. The industry also accepts that the EFSA is the authority for safe food in Europe. However, as far as health is concerned, and despite the low limit the EFSA has set, there is nothing that shows that the tolerable weekly intake of cadmium in Europe is breached, so there is no food crisis. Mr Hansen referred to local trials, particularly from Denmark, showing that more intensive fertiliser use does not translate into a problem with cadmium ending up in food above the levels prescribed by the EFSA.

Referring to the research by Prof. Smolders, Mr Hansen indicated that changes in the environment mean that, presently, even the limit of 75mg would not have any effect on accumulation. Nevertheless, the import of phosphate fertilisers will continue, and there should be no limit that would exclude North Africa from this balance.

Mr Hansen also presented the industrial perspective on methods of producing phosphate fertilisers. Some of the producers use the 'nitrophosphate process' which uses rocks directly. It is, therefore, not possible to make changes, the rock must be used directly, which means that the producers have to work with the rock they get, and it should remain so.

Presenting the industry standpoint on the cadmium limit, Mr Hansen emphasised that the industry, in discussions with the Commission over many years, and in 2012 in particular, advised the Commission to set the level at 60 mg cadmium per kg. The industry could also accept a higher limit: 75 or 80 mg. What is clearly rejected by the industry are lower limits, and especially lower limits that are predetermined without any study of what the actual consequences of it are. According to Mr Hansen, this is where the right balance really needs to be found.

Mr Hansen concluded his presentation by stressing the importance of the proposal. There are, he said, many reasons why this proposal is relevant. As it will give guidance for developing the fertiliser sector in the next 10 to 15 years, it should set the right balances. Ultimately, the proposal is about food and farmers should be provided with enough nutrients so they can produce wheat yields and high quality and healthy food according to consumer
expectations. Finally, the speaker declared support for the proposal from the industry, and a willingness to discuss it in the months to come.

### 3.4. Mr Benoît PLANQUES - European Consortium of the Organic-Based Fertilizer Industry

Mr Benoît Planques briefly presented the ECOFI, a European association of producers of organic fertilisers, organo-mineral fertilisers and organic soil improvers. The ECOFI’s members are active in most European countries, the Mediterranean area and the Middle East. They cover, on average, 60% of the European market of this type of products, and have an estimated turnover of 250 million Euros. The industry is dominated by SMEs.

Mr Planques emphasised that the proposal is a great novelty for this type of product, as the market is not harmonised at and there are many constraints present, due to different national regulations. This regulation will hopefully facilitate international trade in organic based fertilisers. In addition, it creates an opportunity for the market to reduce the nutrient imbalance between certain areas. For example, at present in the Netherlands and France there is a certain excess of manure production, and the regulation may help to reduce this by facilitating the exports to areas where are low level of organic matter on the soil.

Further, pointing to the coexistence of national and EU regulations, Mr Planques stressed the need to ensure the right balance between the different regulations. Above all, there has to be an awareness of the risk of lowering standards if the EC labelling does not ensure quality. Mr Planques also emphasised the need to streamline and simplify different product function categories, as well as different component material categories. This applies to both the final products and the raw materials. In particular, the speaker requested that the definitions be moved to the core text, and where possible using the same definition across different categories to avoid misinterpretations. For example, the current proposal speaks about solid and liquid fertilisers, but there is no clear definition of these products.

Mr Planques also pleaded for use of the same safety requirements across the categories, in order to facilitate the procedure in the case of combined products. For example, in case of cadmium, chromium or other heavy metals, there should be same limits for organic fertilisers, organo-mineral fertilisers and organic soil improvers. Given that the organo-mineral fertilisers are just a mixture between organic and inorganic fertilisers, it would be easier to have the same limits.

The speaker further requested that the vocabulary should use claims as the primary determinant of the product function category. This primary determinant may also be supported by the mode of action the concentration of components, or other relevant criteria.

It would also be useful, Mr Planques said, to clarify the current definitions of final products like fertilisers, as well as the sub-category definitions – organic, organo-mineral fertilisers and inorganic fertilizers – to avoid possible overlaps among them and with soil improvers (irrespective of the product function category). Then Mr Planques expressed the need to revise the definition of component material categories. This refers in particular to category 2: plant and plant extracts, category 6: by-products for the industry and category 11: animal by-products, as the present definitions are not clear enough and too restrictive in the context of circular economy.

Mr Planques also stressed the need to ensure that safety requirements have a positive impact on human health, and do not simply duplicate the existing requirements, for example for animal by-products safety requirements. He suggested ensuring that the labelling
requirements correspond with the actual practice on the market, to avoid creating confusion between the farmers due to changes in classification or denomination.

Mr Planques pointed out that the new proposal must be aligned with the related regulation. The speaker mentioned three other regulations that are of importance in this area. The first one is REACH, where it is a very positive development how REACH compliance is used to streamline the regulatory burden. That being said, a situation, whereby products presently excluded from the scope of REACH would have to comply with REACH in order to be qualified as EC-labelled fertiliser should be avoided. The second one is the Animal By-product Regulation. In this case, adequate safety requirements should be ensured, without duplication of testing for animal by-products. The last set of norms is the safety requirements for vegetal components. These should be aligned with those for animal feed derived from the same raw materials. The present regulation of animal food regulates some similar requirements as the proposal, but the latter is sometimes stricter than the requirements for feeding animals.

Subsequently, Mr Planques commented on two different component material categories. The circular economy can only be achieved by maximising the amount of organic and secondary raw materials used. The proposal of the definition of component material category No 2 for plant material is currently too restrictive and excludes mainly non-chemical processing methods. Therefore, it may lead to problems with providing EC fertilisers based on plant materials. Next, the speaker pointed to component material category No 11 concerning animal by-products, which is currently blank. As there are many animal by-products treated with EU-approved transformation processes that could be immediately inserted, it is necessary to approve as many national transformation processes as possible before the regulation enters into force.

Mr Planques later commented on the fact that the definition of organic fertilisers, as well as that of organo-mineral fertilisers and organic soil improvers, excludes the use of material that is fossilised or embedded in geological formations. This eliminates three of the most common sources of organic materials: leonardite, lignite and peat.

When it comes to labelling products, and in particular the Corganic/Norganic ratio for organic fertilisers that should be introduced in order to ensure minimum quality and improve environmental management linked with nitrate directives, the speaker suggested that there should be a minimum threshold for the combination of N+P+K in multi-nutrient organic-based fertilisers. Nowadays, there is a single limit for nitrogen, phosphorus and potassium, but what is also needed is a minimum limit of N+P+K for the mix of fertilisers (the current proposal is at 6.5% by mass for solid fertilisers, and 5% for liquid fertilisers).

3.5. Questions and Answers

Mr Jan Huitema MEP, a rapporteur on the Agri-committee, asked Professor Wesseler about the impact of the regulation on the cost-price of the farms, in particular the influence of the price of fertilisers per kilogram on a tonne of grain, a litre of milk, and a kilogram of meat. Professor Smolders also indicated that the average level of cadmium is 32 mg/kg, and therefore quite within the proposal. In addition, the proposal aims at having more competition for organic fertiliser, which may reduce the cost-price for the fertilisers as such.

Next, Mr Huitema asked Professor Smolders about the concentration of cadmium and the importance of it staying at the same level. Mr Huitema related to the balance mentioned by Professor Smolders and asked for clarification of what happens with the additional cadmium
that is applied on the soil. Relating to the process of leaching, he asked whether the additional cadmium enters the water cycle through this process, causing e.g. high levels of cadmium in mussels. Mr Huitema stressed that he must know the facts here before preparing a proposal for the Agri-committee.

Answering, Professor Wesseler emphasised that the question is important, as it may affect farm productivity. He referred to the data in his presentation concerning the share of fertiliser expenditure among variable costs at farm level that ranges between 20 to 40%. The expenditures on organic fertilisers, among the total expenditure, are so negligible that they are hardly measurable. If the regulation introduces changes in this area, it will hardly measurably affect the farm's income. It may have a stronger effect on the industry that is producing organic fertilisers.

Next Mr Huitema asked what is the effect of cadmium levels set in the regulation proposal on the cost-price of the farmer. Professor Wesseler stressed that, in order to answer this question, it is necessary to clarify to what extent a more stringent regulation on the cadmium levels and phosphorus would affect a farm's income. Concerning the total expenditure on fertilisers, the most expenditure is for nitrogen, followed by phosphorus. His team has not assessed quantitatively what might be the effects of the changed cadmium-level. In order to do this, it would be necessary to reconstruct a trade-model to see how this would affect the phosphorus trade, as there would be some markets in Africa that perhaps could no longer be used and there would be a rearrangement in the international trade of phosphorus fertilisers. Concluding, Professor Wesseler indicated that, looking at the expenditure at a farm level and the potential effect that this might have on the phosphorus fertilizer, the effect on farm household income or on farm profitability will again most probably be very negligible.

Answering the question of leaching, Professor Smolders stressed that the risks of groundwater Cd is low, in the majority of cases, the limits are not exceeded in the leaching waters. When they are exceeded, it is mostly a natural phenomenon. There is much more impact of soil acidification and acid deposition from the leaching than from the fertilisers. The acid deposition is constantly being reduced, due to the environmental policy in Europe since 1972. In fact, it might even be expected that the leaching will constantly decrease.

Next Mr Hansen referred to the statement of Mr Huitema that the average cadmium concentration is 32 mg/kg in relation to phosphate fertilisers. He stressed that it is necessary to bear in mind the territorial differences in this respect, and that the impact is different across countries. Furthermore, the producer of phosphate fertilisers depends on the rock, and the content of it may vary. It is not possible to use a 59mg rock; if one wants to keep the 60mg limit, one must aim a fair bit below. Hence, even the 60mg limit is actually a real constraint in the reality of different markets in Europe.
Ms **Vicky Ford (the Chair of IMCO Committee)** thanked Mr Adam Szejnfeld for organising the workshop and for emphasising the extreme importance of fertilisation, and expressed her appreciation at the presence of members of the Agricultural and Rural Development Committee and the Internal Market Committee. She noted that the most important aspect of the new legislative framework is market surveillance. Such a system, where notifications about possible dangers enable protection, is already present in the case of defective products. Fertilisers will be included into this system.

Ms Ford pointed out the differences in the Commission's proposal concerning the typical responsibilities of operators. In particular, a provision whereby the operators are responsible for the wording of annexes, or for any circumstances leading to food being considered unsafe, seems to establish a too broad scope of liability. Further, the relation between this broad liability to the liability established by other EU food safety regulations is not clear.

Answering a question by the Agricultural and Rural Development Committee, Ms Ford stated that the additional costs would be borne by the end users, which means not only food manufacturers, but also consumers. These costs will depend on the uncertainty created by the additional liability, though this may be at least partially clarified by the EU Parliament. This issue relates especially to the regulation of cadmium limits, as it might lead to problems for the industry being unable to use certain natural resources from different parts of the world, which, according to Ms Ford, causes geo-political concerns.

Ms Ford invited the first speaker, Mr Rolf Mäder to start his presentation.

### 4.1. **Mr Rolf MÄDER - FiBL Germany**

The first presentation was given by Mr **Rolf Mäder**, formerly an employee of an organic farmers association, Bioland, a manager of the certification body ABCERT AG, and currently the head of the department of quality assurance in a research institute of organic farming FiBL. Mr Mäder is also responsible for the input list for organic farming in Germany and represents the input regionalisation network that aims at harmonising the criteria and procedures for the regionalisation of inputs for organic farming. He is responsible for the Biofector database within the EU project Biofector.
Mr Mäder began by emphasising that he would be focusing on the regulation for biostimulants, as it is an important issue for organic farmers. He also recognised that another very important topic is recycling phosphorous fertilisers as an alternative to smooth rock phosphate, but this issue was too complicated for a three-minute presentation, so the speaker expressed the intention to use some additional time. As Mr Mäder explained, biostimulants are traditionally used in organic farming, and therefore are very important for organic farmers who have limited access to plant protection products and to fertilisers. The registration procedure for biostimulants should not, therefore, be too expensive or too complex. Representing organic farmers, Mr Mäder welcomed the fact that biostimulants are meant to be regulated by fertiliser legislation rather than plant protection law, as it constitutes an easier solution. Further, he recommended that the definition in Article 46 should be corrected by changing the expression “tolerance to abiotic stress” into “tolerance to stress”, as there is also biotic stress, which is very important in organic farming, and there are very effective biostimulants that improve tolerance against biotic stress.

Then Mr Mäder focused on the differentiation between biostimulants and plant protection products, explaining that the differentiation between them is not always clear. Compost, for example, contains many different microorganisms that are registered as plant protection agents, but this cannot mean that compost must be registered as a plant protection product. Biostimulants with active plant protection agents should also be classified as biostimulants in special cases. For example, extracts from algae should be specified as biostimulants, even though they do not have a significant plant protection effect, as they improve the tolerance to biotic and abiotic stress. Then he addressed the list of microorganisms in Annex II part II, which he said should not be a closed list (the speaker suggested introducing the words: "such as"). The list should be more open, including, for example, free living and symbiotic nitrogen-fixing microorganisms as well as plant nutrient solutions. Processing methods should also not be limited.

4.2. Ms Dominique DEJONCKHEERE – COPA COGEC

Ms Dominique Dejonckheere representing COPA COGEGA (an association for agricultural cooperatives and farmers) stressed that fertilisers are very costly for COPA COGEGA members, as they represent approx. 30% of the inputs price. Therefore, COPA COGEGA is very concerned about the abolition of Regulation 2003/2003, because it could have a negative impact on the quality of mineral fertilisers and the transparency of the market. Ms Dejonckheere suggested re-establishing a positive definition of mineral fertilisers and setting up a restricted list of mineral fertilisers at a European level. These mineral fertilisers should remain on the market throughout the EU, so that farmers will be able to purchase them at a reasonable price.

Ms Dejonckheere pointed out that farmers need to protect the earth and to make sure that the soils remain in a proper condition. Hence, it is necessary to look at the criteria of the end waste, which would allow for the safe use of organic materials. In addition, there are certain Member States where regulations concerning the use of compost and digestates have already been established, including requirements stricter than certain elements of the Commission’s proposal. Ms Dejonckheere suggested setting out a transitional period that would be long enough for the Member States that already have stricter requirements. To improve the safety of organic fertilisers, it is necessary to set levels for contaminants, and in particular abiotic compounds, so that harmonisation could be established as soon as possible.
Further, Ms Dejonckheere underscored the fact that in some sectors and in some Member States, the food chain has specific requirements, prohibiting farmers from using organic fertilisers that are not from the agricultural system, in order to ensure the quality and traceability of foodstuffs. It is therefore necessary to take the balance between mineral and organic fertilisers into consideration, which does not seem to be the case at the moment. The role of competition in mineral fertilisers can also not be underestimated.

Referring to the costs of the new draft regulation for the agricultural sector, Ms Dejonckheere stated that farmers are the main consumers of fertilisers and would bear the costs and be most affected by the regulation. From this perspective, she criticised the cadmium level established in the regulation as not being based on any fair scientific studies. Such a level would, she said, jeopardise the sources of supply for phosphates at a European level, restrict flaws and create a risk of prices of phosphate fertilisers increasing. With regard to cadmium, there must be a transitional period for harmonisation, and the harmonisation has to have limits at 60mg or higher. The transitional period is needed because the recycling of phosphate from organic matters is not yet in place to supply all the EU market.

4.3. Mr Jo GILBERTSON - EFBA

Mr Jo Gilbertson from the European Fertiliser Blenders Association explained that the commercial activity of fertiliser blenders involves mixing nitrogen fertilisers, phosphate, potassium and sulphur, and blending them together to achieve the appropriate balance required by plants. Therefore, fertiliser blenders are probably the principal users of solid phosphate in fertilisers in Europe.

Mr Gilbertson addressed two issues: (1) the primary concerns about cadmium limits and (2) the economic impact of cadmium limits on farmers and consumers.

Addressing the first issue, Mr Gilbertson requested, in the name of EFBA, to conclude that 60 mg/kg constitutes too tight a limit given research demonstrating that we have no cadmium problem in food. A 60 mg/kg limit would exclude approx. 25 % of the imports from the North and West Africa used by fertiliser blenders. That restricted supply would likely increase the cost of phosphate fertilisers for farmers between 10 and 20 %.

Referring to the research of Professor Smolders, Mr Gilbertson indicated that this work looked at average levels, not maximums, but that even a limit of 80 mg/kg would most probably not necessarily increase the cadmium loading significantly over a short period of time; given that cadmium modelling is carried out for a period of over one hundred years. The difference between 80 mg/kg and 60 mg/kg in the short term is immaterial from the soil benefit point of view, but critically important to the economics of producers, farmers and consumers.

Mr Gilbertson stressed that none of the previous presentations (including the Commission’s) had indicated that a lower limit would significantly reduce the concentration of cadmium in the soil or in food. The speaker referred to agronomic evidence indicating that different crops require different amounts of phosphate fertilisers (for example, growing cabbages requires six times more phosphate fertiliser to be applied to soil than that needed for growing wheat, while potatoes need four times as much phosphate than wheat), therefore a general limit is not appropriate. Based on examples, he drew the conclusion that the amount of cadmium that is placed in the soil is not closely linked to the concentration of cadmium or the limits of cadmium in the fertiliser, but to the soil condition and the type of cultivated crops. As such, applying a 20 mg/kg cadmium limit in phosphate on cabbage would still mean applying a
higher rate of cadmium to the soil than if the 80 mg/kg cadmium limit in phosphate was to be applied to cereals, as the cabbage requires more than 260 kg of Phosphate fertilisers per ha, and cereals only 45 kg of phosphate fertilisers per ha. Therefore, even at 80mg/kg the amount of cadmium application to soil would be 31% lower, even though the cadmium limit would be four times higher. The speaker stressed that one should take the total soil loading into consideration, instead of introducing a general cadmium limit.

Mr Gilbertson repeated the plea for more consistency when looking at what is actually applied to the soil, and not setting an arbitrary limit supported by research that is very weak in terms of the number of samples taken to demonstrate the cadmium problem. Mr Gilbertson pointed to the nitrates and sludge directives as a proper regulatory example, emphasising that it is necessary to monitor the soil condition and review it over given periods of time (i.e. every ten years).

4.4. Ms Kristen SUKALAC - European Biostimulants Industry Council

Ms Kristen Sukalac represented European Biostimulants Industry Council (EBIC), which includes 54 member companies, ranging from micro-sized firms up to multinationals. The European market is currently estimated at 575 million Euros, with a growth rate of over 10% per annum foreseen for the near future.

Presenting the standpoint of the European Biostimulants Industry Council, Ms Sukalac began by noting that unlike FiBL, EBIC does not believe that biotic stress belongs under the umbrella of biostimulants because it is very important to keep a clear boundary between fertilising functions and plant protection functions. European Biostimulants Industry Council supports a definition that includes benefits of these products by improving nutrient use quality, the ability to withstand harsh growing conditions and improvement of crop quality through plant vigor.

Despite the impressive growth of the industry, it currently has no access to the single market, which constitutes a significant hurdle to the further development of the industry. It is therefore vital that this regulation is adopted and in force as soon as possible, in order to unleash the innovation and growth of the industry. Because many production sites are in areas that are otherwise not very industrialised, it also has a very positive impact on the local communities.

Ms Sukalac agreed with many of ECOFI’s comments, in particular relating to the narrow scope of some component material categories. The speaker stressed that, in order to promote the circular economy and the bioeconomy, all of plant materials that are currently used safely should be included.

Addressing the food industry or the food chain by-products, Ms Sukalac underlined that, also in this sector; overly specified positive lists should be avoided. The European Biostimulants Industry Council would agree with the FiBL that a much more open and innovation-friendly approach to microorganisms is needed. She criticised the current approach with its positive list, claiming that it would actually require companies that invest in research and development to surrender the fruits of their investments into the public domain (since living organisms cannot be patented), and consequently make those insights available to their competitors. This would discourage innovations in both the medium and long term. EBIC has identified an alternative pathway for companies to place innovative microbial biostimulants on the market supported by the use of harmonised standards. Ms Sukalac indicated that the European Biostimulants Industry Council would be happy to provide more information on the work that it has done and continues to undertake to support the development of such standards. Article 12 provides a legal base for such a solution, as it introduces a presumption of conformity when harmonised standards are used to meet safety requirements.
Additionally, she supported the ECOFI’s comments relating to animal by-products, but did not elaborate due to time constraints.

Concluding her statement, Ms Sukalac stated that it is problematic that some of the provisions in the draft regulation seem to inadvertently undermine the right of companies to protect their critical business information. This right was recognised by the Parliament and the Council in the Trade Secrets Directive earlier this year. She stressed that the European Biostimulants Industry Council would be more than happy to meet with the members of Parliament to talk about what kinds of adjustments could resolve these issues. One very positive thing that supports innovation is the precision that the product function categories are claim-based.

4.5. Ms Kristy-Barbara Lange - European Bioplastics

Ms Kristy-Barbara Lange, as a representative of the bioplastics industry, explained that the European Bioplastics (EUBP) represents 70 members from all over Europe, and all along the value chain of bioplastics.

Ms Lange began by defining bioplastics as plastics that are bio-based, bio-degradable or both. However, not every bioplastic is bio-degradable, and not every plastic must be bio-based.

Relating to the fertiliser regulation, Ms Lange emphasised the benefits that bio-degradable mulch films can have for modern agriculture. She explained that the overall mulch film market amounts to 80,000 tonnes, where 76,000 tonnes of these are non-bio-degradable. These are generally polyethylene films that are very thin, making them very difficult to collect after the crop. The agricultural film plastics association says that 30% of these are not being collected. This annually generates about 15,000 tonnes of microplastics in European fields, which constitutes a significant problem.

Addressing the possible solutions, Ms Lange firstly underlined that refraining from the use of plastic mulch films completely is not an option, as they offer many important advantages. According to a recent study concerning vineyards conducted by the University of Montpellier, bare soil decreases yields drastically, and mulch films are therefore necessary.

Ms Lange indicated that the bio-degradable mulch films could be a possible solution. They have the same positive agronomical effect as conventional mulch films: improve soil conditions like humidity or temperature, increase yields and help to control wheat, and have
further positive effects. The crucial difference is, however, that they do not have to be collected at the end of the crop cycle. They may be left in the field as they are bio-degraded. According to a recent study, conventional films tend to accumulate in the soil, hindering the plants in the next crop cycle from reaching water as easily as in the previous cycle, since the microplastics keep on accumulating (this has been observed in the soils of southern Spain).

Ms Lange reported that there are already national standards in place in Italy and France. Further, there is a CEN committee working on a standard for mulch film to be recovered from soil. The process of standardisation is presently taking off.

Referring to the revision of the fertiliser regulation, Ms Lange stressed that the EUBP recommended considering certified biodegradable mulch films as soil improvers, and as a way of managing the microplastics problem in the fields. She indicated as targets the reduction of hurdles, along with EU harmonisation to create a level playing field for these innovative materials, while strengthening the European markets.

4.6. Ms Stefanie SIEBERT - European Compost Network

Ms Stefanie Siebert, a representative of the European Compost Network, emphasised that the workshop is very useful, taking into account the ongoing discussion on the circular economy package, which includes both the proposal on bio-waste and the fertilisers proposal.

From the point of view of the European Compost Network, it is positive to discuss both proposals at the same time, as the members of this network want to produce high quality products based separate collected bio-waste that can be used as organic fertilisers and soil improvers on our soils.

Describing the European Compost Network, Ms Siebert stated that it represents composting and anaerobic digestion plants in Europe. Members of the network treat around 30 million tonnes of bio waste in Europe, producing 12-15 million tonnes of compost out of it. Compost can be produced as organic fertiliser dependent on the nutrient content, or as soil improver to bring organic matter into the soil. The compost materials may also be used as mixing component in growing media.

Relating to the fertiliser regulation, the speaker stressed that the European Compost Network is very pleased that the organic fertilisers, soil improvers and growing media are also regulated in the proposal. Ms Siebert assessed this as a great step forward for the sustainable use of recycled organic materials to be used as fertilising products in Europe in the future.

Ms Siebert moved on to discussing the potential of bio-waste as well as compost and digestate in Europe. This concerns mainly bio-waste, from food waste and garden waste from households and from food-processing industries, but also other fractions that belong to organic material, such as crop residues and manure. Addressing only the potential of bio-waste from municipal solid waste, Ms Siebert indicated that there is in total a potential of 125 million tonnes of bio waste in Europe, and out of this potential it is possible to produce up to 50 million tonnes of compost, but only if the bio waste is collected separately. This amount would allow a lot of organic matter to be produced, which is also used as a soil improver, to improve the soil organic matter content and to maintain soil fertility. The compost materials also include certain amounts of nitrogen, potassium and phosphorus. In total, it is possible to replace 10 % of phosphorus phosphate fertilisers with only the potential of the bio-waste from municipal solid waste. There are also other organic residues from manure or crop residues from agricultural residues, which can
contribute to fertilise soils. As an additional advantage of compost, Ms Siebert indicated that it is a source of stable organic matter that is very important for the soil fertility.

Ms Siebert once more supported the proposal of the European Commission, stressing that it will boost organic recycling in Europe. The Commission took up the proposal of the end-of-waste criteria, which was worked out by the Joint Research Centre (JRC) in Seville in 2014, which also is very positive. Formulating a harmonised standard for compost and digestate that assures a good quality of recycled organic material in Europe is a good foundation. The European Compost Network sees the regulation also as a chance to access the European fertiliser market with its products, which will certainly meet the quality standards. The European Compost Network has already developed a European-wide quality assurance for compost and digestate that provides information on suitable materials, includes process requirements for composting and anaerobic digestion and quality criteria for compost and digestate (covering nutrient contents, heavy metal contents and ensuring the safety of the materials).

Ms Siebert added that there are, nevertheless, some issues that require further clarification. First, there is a problem of missing harmonisation of criteria between inorganic fertilisers, organic fertilisers, liming materials, soil improvers and growing media, which is also mentioned the ECOFIN opinion. The same limits should apply to all material groups. Second, a more specified input list for compost and digestate is needed, as proposed in the JRC end-of-waste criteria report. Third, Ms Siebert indicated that there are some repetitions with the animal by-product regulation and the new fertiliser regulation.

4.7. Mr Enrico Villa - Mineral Fertilizers Group of Assofertilizzanti

Mr Enrico Villa stated on behalf of Assofertilizzanti, the Italian national association of fertiliser producers that its members deal with all categories of fertilisers. Mr Villa pointed out that European harmonisation is still far away, and insisted on harmonising the already existing EU regulations, as well as the national ones. It is also crucial, said the speaker, that the new regulation is based on scientific data.

As a problem for the branch of industry that he represents, Mr Villa indicated the complicated risk management, requiring a lot of scientific data. This is especially problematic for SMEs, which are also represented by his association. The speaker emphasised that the lack of harmonisation of requirements relating to organic, organo-mineral and biostimulant fertilisers at present is problematic, as the producers are encountering serious difficulties in commercialisation in European countries, despite the presence of mutual recognition principles.

Nevertheless, Mr Villa said that there are some issues in the new regulation that have to be addressed, as they could compromise the competitiveness of the agricultural sector, considering human and environmental safety as an absolute priority. It is necessary to make all the choices based on the scientific data, carrying out a very accurate risk assessment rather than a hazard assessment. Safeguarding the investment of SMEs in research and development in order to guarantee the production of new technologies and new types of fertilisers is essential.

Referring to the problem of cadmium limits, Mr Villa indicated that study of Professor Smolders showed that distributing a phosphate fertiliser with a maximum content of 80
mg/kg of cadmium will not result in an increase of the presence in the soil of this metal for the next 100 years. There are no better tools to estimate cadmium leaching from soils for a series of environmental factors that the decreasing deposit rates of cadmium in atmosphere. On the basis of this conclusion, the fertiliser industry, and in particular the Italian fertilisers industry, proposes a maximum limit of 60 mg/kg, which is well below the acceptable benchmark.

Mr Villa stressed that chromium is very important for the Italian industry. He requested an excerpt of the chromium limit calculation, considering that the only form of chromium that is scientifically proven to represent a potential hazard for human health is the hexavalent chromium.

4.8. Mr Pierre JAOUEN - Roullier Group

Mr Pierre Jaouen represented Group Roullier, a French nutrition business, founded more than 50 years ago in Brittany, with almost 8000 employees around the globe. The production and sale of fertilising products is by far the major activity of Group Roullier. In the EU, the Group is commercially present in 25 of the 28 member states, including 16 production sites. The Group is also one of the largest employers in this sector, with approximately 3000 employees in the EU.

First, Mr Jaouen presented the position of Group Roullier on the current regulatory landscape of fertilising products in the EU, which concerns mineral fertilisers. According to Mr Jaouen, the regulation is efficient, but it does not cover other fertilising products. In addition, the time for introducing innovative products on the market is rather lengthy, irrespective of the type of product and whether one introduces a new type denomination into the current European regulation, or registers a product in a single country. This also leads to differences in product portfolios across countries, and different value propositions for farmers. In addition, the mutual recognition in different countries is not functioning well.

Mr Jaouen assessed the future regulation as an improvement. It will provide a single market for fertilising products, and a foundation for innovation, due to the architecture of the proposal. The speaker acknowledged the good work done by the Commission concerning the differences between materials and the function-based definition of fertilising products.

Referring to the introduction of the quality and safety criteria, Mr Jaouen stressed that this part of the regulation has to be considered very carefully, as it can have extremely severe impact on the industry. The future regulation will also lead to an administrative burden for the industry.

Next, Mr Jaouen presented the first example relating to the question of innovation and the question of the registration of substances under REACH Directive. The Commission indicated that the cost of registering a substance for the tonnage band 10-100 T is around 150.000 Euros. According to the draft regulation, irrespective of the tonnage of substances that will compose the fertilising products, they will have to be registered with at minimum the same information. Therefore, the entry costs for substances that will be used at a very low dosage in products with low volumes, typically the case for biostimulants components, will be too high and will undermine innovation in the sector. In some cases, the substances will never make it to the market. Plant extracts would be particularly affected.

Concerning the technical aspects of establishing a maximum limit for cadmium, Mr Jaouen raised the issue that decadmation techniques exist only at a small scale for phosphoric acid, and they are not implemented on an industrial scale. This means that not all different materials will be able to be decadmated, phosphate rock and single superphosphate in particular. The reason for having several materials for phosphate fertilisers is that they have different fertilising properties, and the phosphate rocks are not always the same. Those of
volcanic origin do not have the same properties as those of sedimentary origin. To have fertilising properties it must be soluble, and the phosphate rock is the only input that is allowed in organic agriculture.

The second example given by Mr Jaouen concerned the cadmium limits. While discussing the maximum limit, it is necessary to take into account the variability of cadmium levels in various deposits and within the same deposit. Unfortunately, there is not very much information about it for a given source. Just setting a limit, without thinking about the variation of cadmium that naturally occurs within deposits, is clearly going to be problematic as - under the Commission’s proposal - the maximum limit must be respected for each production lot. In the name of Group Roullier, Mr Jaouen suggested introducing a maximum limit for cadmium in phosphate fertilisers at 80 mg/kg P2O5, as it will lead to a reduction of cadmium in soils since the average level will be lower, which – according to Professor Smolders study – would lead to a decrease in cadmium content in the soils. This, as Mr Jaouen said, is the only limit that will be efficient, achievable and realistic for the industry, and scientifically justified.
5. QUESTIONS AND ANSWERS – GENERAL DISCUSSION

The Chairman invited the participants of the workshop to ask questions.

First, Ms Irina Evstigneeva from PhosAgro asked whether it would be justified to increase the limit to 80 mg/kg if only 8% of fertilisers on the market exceed the 60 mg/kg limit? She explained that her company has a major resource base, almost the only one left in Europe besides Kemira (which has basically the same resource).

Second, a representative of the Danish permanent representation explained that, since July 1998, Denmark has already had limits for cadmium in inorganic fertilisers of 48 mg/kg. The producers of inorganic fertilisers have been able to supply Danish farmers’ and customers’ products that complied with this limits without any reported problems. He asked if it would be technologically possible to purify the rock from, for example, North Africa, which contains high limits?

Ms Johanna Bernsel, representative of the European Commission, firstly stressed that the Commission had been invited to the workshop only as an observer. Therefore, her presentation would be limited to asking some questions instead of presenting the standpoint of the Commission.

Ms Bernsel explained that her questions would relate to cadmium. One was to Mr Smolders and Mr Hansen, and the other one to Professor Wesseler.

The first question related to the 80 mg/kg limit. Ms Bernsel asked for clarification on what the removal of cadmium by crops actually means for the food chain and for the contamination of organic fertilisers, given that apparently the non-accumulation of cadmium is due partially to the fact that it is removed by crops.

Ms Bernsel further inquired how this stand-still situation contributes to the objective of reducing the presence of cadmium in food, which was recommended by the EFSA in 2012, and by the Commission in its recommendation of 2014 considering that was not deemed feasible to reduce the cadmium limits in food contaminant legislation for the major contributors like cereals and vegetables and potatoes. She recalled that the Commission then recommended that Member States introduce national measures to help farmers and other food operators not to keep the status quo, but to reduce the cadmium contamination of these basic foodstuffs.
Next, Ms Bernsel requested a clarification from the industry on how has it taken up the content of the Commission's 2014 recommendation to help farmers to reduce the cadmium contamination of food, in view of the review of contaminant limits that the Commission announced for 2018.

In her second question, Ms Bernsel asked how the economic calculations took into account the optionality of the harmonisation proposed by the Commission. She recalled that it is up to the producers of, for instance, phosphate fertilisers, to opt for the CE marking. She therefore asked whether the regional variability that was mentioned as an alternative could not be taken into account by marketing products under national legislation instead, which can have higher cadmium limits or no limits at all.

Professor Smolders firstly referred to the cadmium benchmark. He pointed out that the limit of 80 mg/kg was first added in 2014 to the list of 20, 40 and 60 mg/kg limits. Professor Smolders emphasised that, even at the limit of 80 mg/kg, the recommendation of 60 mg/kg will remain, as there is depletion. Professor Smolders refrained from making any statements on the benchmarks, and clarified that he is only explaining how the limits should be apprehended. In the case of the 80 mg/kg limit, there is a Cd accumulation in the average situation. In the case of a 20 mg/kg limit, there would certainly be depletion. There is also a certain degree of variability that has nothing to do with uncertainty. Within Europe, there are regions of accumulation and regions of depletion.

Next, Professor Smolders answered the question relating to the crop off-take. He underlined that what the crops take up is a tiny part of the whole balance. However, this is the most important part, because that is what ends up being consumed by people. Professor Smolders indicated that the limit of 80 mg/kg would not reduce the concentration of cadmium in foodstuffs. Only a much lower limit could have such an effect. The speaker stressed, however, that there are other factors influencing the concentration of cadmium in foodstuffs, underlining in particular that bioavailability has more of an impact on this concentration than the entire regulation of fertilisers. Therefore, to really achieve lower concentrations in the foodstuffs, there are many other things that could probably be done more efficiently. However, the entire regulation is in line with the conclusion of 2006.

Professor Wesseler began by stressing that, even if it is claimed that the effects of this regulation on expenditures at farm level will be very small, this does not mean that a more stringent regulation would be justified. A more stringent regulation will always increase the costs, but they will not be borne by farmers mainly, but rather by other partners in the supply chain and in the industry.

Then Professor Wesseler referred to the comment that in only 6% of cases the concentration of cadmium exceeds 60 mg/kg. This, in his opinion, should not justify the introduction of more restrictive limits of 50 or 40 mg/kg. According to Professor Wesseler, it is necessary to be more careful and to consider also the numbers presented by Professor Smolders. Before introducing more stringent regulations, it is necessary to investigate the usefulness of them, as such provisions might increase costs in the sector.

Professor Wesseler asked for clarification of the Commission’s question.

Ms Bernsel representing the European Commission explained that she would like to learn find out whether the economic analysis takes into account the fact that the harmonisation proposed by the Commission is only optional, which means that the manufacturer of fertilisers does not have to CE mark his product. If a product containing more cadmium is allowed under national legislation, then the manufacturer can use that. There is no ban on imports or placing on the market in the Commission’s proposal.
Professor Wesseler explained that the analysis had been made retrospectively. The past numbers prove that at the farm level organic fertiliser that is traded (which excludes manure and inorganic fertilisers), plays an insignificant role. Taking this fact and the expenditures at the farm level into consideration, the differences in standards among different EU member states, at least at farm household level, are not really significant.

Then Mr Hansen answered the question on whether the industry is taking the cadmium issue seriously. In his opinion, the answer is affirmative. This follows from the fact that the industry has agreed to the setting of a limit, because that alone will intensify focus on the issue and will help to improve the products. Such a limit, however, should be set at the right level. There is a huge variety of limits in Europe, and therefore even setting a limit like 60 mg/kg will have consequences for fertiliser production in Europe.

Referring to the question from Ms Evstigneeva, Mr Hansen said that it is not a question of whether the cadmium level in European phosphate will go up. It will go down even setting this limit, because it is wrong to focus on the average. The reality is that the spread on the market is much larger, and this is what one should focus on when aiming to reduce cadmium in phosphates.

Answering the last question, Mr Hansen said that it is clear that Denmark has a national limit of 48 mg/kg cadmium, and generally the cadmium limit in fertiliser used in Denmark is lower because of Northern Europe’s tradition. However, there are studies that show that not all phosphate fertilisers in Denmark actually meet the 48 mg/kg limit, so the overall picture is slightly more complex in practice.
6. CONCLUDING REMARKS

MEP Szejnfeld concluded the workshop by thanking all the participants of both panels for their contributions. He underlined that many different problems have been discussed including the technical, technological, economical and legal issues. Specific amendment proposals regarding the draft have been formulated. Mr Szejnfeld was convinced that this workshop provided a solid basis, which can be used to understand a range of problems better. Such aspects should be taken into account in the course of legislation. Taking into account the fact the legislative processes is going to take some more time, the will be an opportunity to provide additional input.
Reforming Single Market for fertilising products
Organised by the Policy Department A: Economic and Scientific Policy
for the Committee on Internal Market and Consumer Protection (IMCO)

European Parliament, Brussels
12 October 2016, 15:00 – 17:00
Room: Altiero Spinelli 1G2

15.00-15:05 Opening remarks Mr Adam SZEJNFELD, MEP, Chair of the Workshop

15:25 – 15:35 Panel - Achieving the right balance on European market for fertilizing products through the new regulatory framework

- Prof Dr Justus WESSELER - Economist’s view on the regulatory framework in the area of fertilisers
- Prof Erik SMOLDERS - Scientific aspects underlying the regulatory framework in the area of fertilisers – state of play and future reforms
- Mr Jacob HANSEN - Fertilizers Europe
- Mr Benoît PLANQUES - European Consortium of the Organic-Based Fertilizer Industry

Questions and answers

16.00 – 16.55: Roundtable - Market participants’ interests and the new regulatory framework

- Mr Rolf MÄDER - FiBL Germany
- Ms Dominique DEJONCKHEERE - COPA COGECA
- Mr Jo GILBERTSON - EFBA
- Ms Kristen SUKALAC - European Biostimulants Industry Council
- Ms Kristy-Barbara LANGE - European Bioplastics
- Ms Stefanie SIEBERT - European Compost Network
- Mr Enrico Villa - Mineral Fertilizers Group of Assofertilizzanti
- Mr Pierre JAOUEN, Roullier Group

Questions and answers - general discussion

16.55 – 17.00: Conclusions by the Chair, Adam SZEJNFELD, MEP
8. BIOGRAPHICAL INFORMATION

SHORT BIOGRAPHIES OF EXPERTS

Prof. Justus WESSELER (Wageningen University)

Prof. Justus Wesseler is head Agricultural Economics and Rural Policy Group at the Wageningen University. He specializes in agricultural economy, including in particular economic relevance of bioeconomy. His scientific experience includes various projects of the European Union, in which he took an active part, including among others ECOGEN: soil ecological and economic evaluation of genetically modified crops (2002) and INSOBIO: Innovative biological products for soil pest control aims at providing concrete and measurable environmental, social and economic improvements (2012).

Prof. Erik SMOLDERS (Catholic University Leuven)

Prof. Erik Smolders is environmental chemist with expertise in soil science and environmental toxicology. Currently he is full professor at the same institute, teaching environmental chemistry and ecotoxicology. The research focuses on bioavailability of contaminants and plant nutrients in soils and water, i.e. plant uptake of 137Cs, Cd, N, P and S; toxicity of trace metals for plants and soil microbial processes. Prof. Erik Smolders has been responsible for the risk assessment of Cd for the European Union and contributed to similar documents for Pb, Ni, Cu, Zn, Co and Sb. In the Cd risk assessment, he was responsible for deriving soil, water and sediment environmental quality limits.

Mr Jacob HANSEN (Fertilizers Europe)

Jacob Hansen has been Director General at Fertilizers Europe since 2011. The association represents the majority fertilizer producers in Europe and is recognized as the dedicated industry source of information on mineral fertilizers. Mr Hansen has a master’s degree in Political Science from the University of Aarhus in Denmark and an INSEAD certificate on Executive Management. He started his career working for the Danish agricultural sector in Copenhagen before moving to Brussels, where he worked for more than 10 years as Director at the Danish Agriculture and Food Council.
**Mr Benoît PLANQUES (ECOFI)**

Benoît Planques is the head of regulatory affairs for ITALPOLLINA SpA and engaged in discussion on harmonisation since the first meeting in Paris in 2009. Since March 2014, he is one of the ECOFI representatives at the European Commission’s Fertilizer Working Group meetings. He knows also the standardisation of fertilizing products at national and European level. In 2000 he obtained a master’s degree in plant production at AGROSUP Dijon (ENESAD-ENITA) (France).

**Mr Rolf MÄDER (FiBL Deutschland e.V.)**

Rolf Mäder is the Head of Departement Quality Assurance at FiBL Deutschland e.V. He is responsible for the inputs list for organic farming in Germany and represents the input-evaluation network. Additionally he is responsible for the Biofector-Database within the EU-Project Biofector. Mr Mäder founder is a member and chairman of the working group for transparent food "InfoXgen - Arbeitsgemeinschaft für transparente Nahrungsmittel".

**Ms Dominique DEJONCKHEERE (COPA COGECA)**

Ms Dominique Dejonckheere is a senior policy advisor at COPA-COGECA in Brussels, which is an organisation that represents European farmers and agricultural cooperatives. She is responsible for expressing and defending the interests of the specialised crop sector, covering such market areas as fruit and vegetables, potatoes, protein crops and seeds. Since 2015, she has also responsible for fertiliser issues. Ms Dejonckheere holds a Masters in Bioscience Engineering: Agricultural Sciences from Gembloux AGRO-BIOTEC, Belgium.
Mr Jo GILBERTSON (EFBA)

Jo Gilbertson represents European Fertilizer Blenders Association. He graduated with a BSc (Hons) in Environmental Health and has additional post graduate qualifications in air pollution control, health and safety, advanced negotiation skills, and quality assurance management. Mr. Gilbertson worked initially in local government as an environmental health officer, before spending 17 years in senior management roles, handling legal and governmental affairs, and latterly managing a business unit in their corporate marketing department.

Ms Kirsten SUKALAC (EBIC)

Kristen Sukalac has worked in agricultural policy since 1999. She worked for global trade associations for a decade, first for CropLife International and then the International Fertilizer Industry Association. Since 2008, she has been a Consulting Partner at Prospero & Partners, which has supported the biostimulants industry and provided the secretariat of the European Biostimulants Industry Council since its creation in 2011.

Ms Kristy-Barbara LANGE (EUBP)

Kristy-Barbara Lange is Deputy Managing Director at European Bioplastics. Since 2010 she is responsible for all internal and external communication activities of the association including media relations and corporate publishing. Ms Lange holds a master’s degree in Political Sciences from Heidelberg University, Germany. Before joining European Bioplastics, she worked for international PR-agencies for several years with the focus on clients and projects from the (renewable) energy and the infrastructure sectors.
Ms Stefanie SIEBERT (ECN)

Stefanie Siebert joined the European Compost Network ECN e.V. in 2010 as Executive Director for Quality Assurance and Communication. Since 2012 she is appointed as General Executive Director of ECN. Ms Siebert is working since more than 10 years in the field of biowaste management and worked for the German Association for Humus and Soil Substrates (VHE e.V.) and the German Quality Assurance Organization for Compost (BGK e.V.). She is a soil scientist and holds a degree in natural sciences of the Ruhr-University of Bochum.

Mr Enrico VILLA (Assofertilizzanti)

Enrico Villa is the President of Mineral Fertilizers Group in Assofertilizzanti, one of Federchimica’s Associations that represents all productive divisions of Italian fertilizers sectors since May 2014. He is also a Board member of Federchimica. He graduated in Law at Milan University in 1988 and started his career in January 1990 as assistant to the Managing Director in a fertilizers company named “Interagry” and successively he moved to “Tecniterra” as Chief Executive Officer (CEO) with the responsibilities of marketing projects and relations with customers. From December 2006 he is a member of the Board of Siriac, an Italian company that produces and trades with fertilizers in Italy and abroad.

Mr Pierre JAOUEN (Group Roullier)

Pierre Jaouen is the director of regulatory affairs of Groupe Roullier, a French family-owned company based in St. Malo, France. For more than 50 years, Groupe Roullier has been innovating on the field of plant nutrition. Producer of all types of fertilising products with 16 industrial sites in the EU, a commercial presence in 25 of the 28 Member States, and 7800 employees, Groupe Roullier is a major actor of the fertilising product sector. Mr Jaouen holds a Master of Science in agronomy from Montpellier Supagro, France.
9. PRESENTATIONS

Prof. J. Wesseler – Wageningen University

Economist’s View on the Regulatory Framework in the Area of Fertilizers

October 12, 2016, Justus Wesseler and Dušan Drabik
European Parliament, Brussels

Outline

- General remarks on the economics of regulation
- Fertilizer market situation
- Assessment proposed regulation fertilizing products
Internalisation of external effects

Figure 1. Internalised external effects of agriculture production

Figure 2. Internalised external effects of agriculture production where MSC = MPC^

The value of opportunities
EU market for fertilizers

- 20 – 25 billion euros annual turnover
- 95K – 100K jobs
- 1% of EU gross value added
- 0.2% – 0.3% of workforce in manufacturing
- Inorganic fertilizers
  - energy-intensive
  - declining reserves of phosphorus
- Not much concentration at the EU level in the mkt for inorganic fertilizers (situation may differ at local level)

Fertilizers

- Historically crucial in increasing crop yields (60% over past 50 years)
- Classification
  - Inorganic (chemical-based): 80% of mkt value
  - Organic (from animals or plants): 4.5% of mkt value (excl. raw manure)
  - Organo-mineral (combination of inorganic and organic; delayed release of nutrients): 12.5% of mkt value
- Inorganic fertilizers have generally more nutrients per volume than organic fertilizers
Gross nutrient balance of nitrogen on agricultural land (kg/year/hectare)

Data for 2013

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<td>61 to 87</td>
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<td>87 to 119</td>
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Average fertilizers cost shares in EU Member States on farm inputs

Share of fertilizers usage by nutrient in EU Member States (average 1995–2012)

Sources of nitrogen inputs in EU agriculture

Estimated market shares and concentration ratios for the top 10 companies operating in the EU-27 inorganic fertilizer market

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<td>TOTAL mkt. share Top 10</td>
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Source: EC

Members of the European Consortium of the Organic-Based Fertilizer Industry (ECOFI)

- Angibaud & Spécialités (France)
- Fomet (Italy)
- Frayssinet (France)
- Isla (Italy)
- Italpollina (Italy)
- Koppert Biological Systems (The Netherlands)
- Organazoto Fertilizzanti (Italy)
- OvinAlp Fertilisation (France)
- SCAM (Italy)
- Sipcam (Italy)
- Sopropêche (France)

Trade in fertilizers in 2012 (million dollars)

<table>
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<tr>
<th>Country</th>
<th>Imports Organic</th>
<th>Imports Inorganic</th>
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<th>Exports Inorganic</th>
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<td>Spain</td>
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<td>257.7</td>
<td>30.1</td>
<td>70.3</td>
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</table>

- Most MS net importers of inorganic fertilizers
- Net trade in organic fertilizers more mixed
- Inorganic fertilizers trade significantly more intensive than for organic fertilizers
  - Greater barriers in the internal market
  - Organic fertilizers bulkier (increases transp. costs)

Source: FAOSTAT
The effects of the new policy will be affected by:

- Differences in average farm size
- Varying percentage of arable land
- Decreasing numbers of animals (esp. in some NMS)
- Inorganic fertilizers easier to transport and apply & much bigger effect on yield
- Organic fertilizers bulky and less rich in nutrients per unit of volume, but help improve soil quality
- Use of green manure (e.g., mustard, rapeseed)

Why not much trade in organic fertilizers among MS currently?

- Is it only lack of common standards?
- Other possibilities
  - Organic fertilizers bulky relative to inorganic fertilizers (e.g., compost)
  - Transportation costs matter
  - Price/nutrients content ratio high for organic fertilizers
  - Lack of local suppliers (esp. for big farms)
  - New machinery needed, additional costs
Effects of the new policy

- Size of environmental/health problem not well known
- Trade effects not well-known (aside from complaints)
- Setting standards for fertilising products more efficient (content)
  - Need for a scientific justification
- Regional adjustments (max levels) possible
- Start with a standard, conduct additional research, adjust if necessary
- CE fertilising products will not immediately ready -> enough time
Scientific aspects underlying the regulatory framework in the area of fertilisers – state of play and future reforms

Erik Smolders

Katholieke Universiteit Leuven, Belgium

March 2016 proposal

Proposed Cd limits are

*Fertilising product with > 5 % P₂O₅

At date of publication: 60 mg Cd/kg P₂O₅
Three years later: 40 mg Cd/kg P₂O₅
Twelve years later: 20 mg Cd/kg P₂O₅

*Fertilising product with < 5 % P₂O₅

3 mg Cd/kg P₂O₅
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<table>
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<td>European agricultural soils</td>
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<td>Phosphate rock (McLaughlin et al. 1996)</td>
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<tr>
<td>Kola (Russia)</td>
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<td>Morocco</td>
<td>47-100 mg Cd/kg P₂O₅</td>
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<tr>
<td>Tunis</td>
<td>38 mg Cd/kg P₂O₅</td>
<td></td>
</tr>
<tr>
<td>Phosphate fertilisers EU-28+1 market (2014)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th percentile</td>
<td>&lt; 1 mg Cd/kg P₂O₅</td>
<td></td>
</tr>
<tr>
<td>50th percentile</td>
<td>24 mg Cd/kg P₂O₅</td>
<td></td>
</tr>
<tr>
<td>90th percentile</td>
<td>57 mg Cd/kg P₂O₅</td>
<td></td>
</tr>
</tbody>
</table>

Rothamsted classic experiments

1843  2012
Archived soil samples illustrate rising soil Cd concentrations. Sources: soil Cd in Broadbalk, Rothamsted (1846-1980) Jones et al., 1987

Trends of wheat grain Cd in Sweden: from accumulation to depletion

Kirchmann et al. 2009
Trends in soil Cd based on mass balances

*Scientific papers*

Tjell and Christensen, 1992 (DK)
Moolenaer and Lexmond, 1998 (NL)
Six and Smolders, 2014 (EU-27+1)

*Use of soil Cd mass balance to estimate impact of fertiliser Cd limits in Europe*

Proposal from the CSTEE, 2002 (EU-15)
Six and Smolders, 2013 report to Fertilizers Europe (EU-28)
Average Cd mass balance in EU 27+1 (Six and Smolders, 2014)

0.35 g Cd/ha/y
0.2 g Cd/ha/y
0.15 g Cd/ha/y
0.8 g Cd/ha/y
2.6 g Cd/ha/y

0.8+0.35+0.15-0.2-2.6=-1.5 g Cd/ha/y

Annual input of Cd has decreased in recent 15 years, suggesting no more net soil Cd accumulation in the average

The wet Cd deposition in 2009 (right). Source: EMEP = European Monitoring and Evaluation Programme, a scientifically based and policy driven programme under the Convention on Long-range Transboundary Air Pollution (CLRTAP).

Total soil Cd concentrations in arable soils (source: GEMAS 2014)
**Analysis in 2002 for Europe**

Predicted change in soil Cd in European agricultural soil after 100 years application of inorganic P fertilizers at different Cd levels. Means (•) and 10th - 90th percentile of different simulations (source: CSTEE, 2002, Member state assessments of the risk to health and environment from cadmium in fertilizers, products).

**Analysis of 2016**

The predicted change in soil Cd after 100 years of emissions using different Cd concentrations in phosphate fertilizers based on the model described in Smolders and Six, 2014 and updated for 2016 with spatial variability accounted for using the GEMAS EU soil database (2014). Means are circles, the ranges are the 10-90th percentiles of different soils in Europe.
## Conclusions

- Proposal of Cd limits is based on stand-still principle
- Current proposal is based on analysis of 2002
- Largest scientific uncertainty is the loss of Cd by leaching
- Analysis of 2013 shows that Cd input has decreased in last 15 years suggesting that the 2002 analysis is conservative
Let’s Get The Fundamental Principles Right!

Jacob Hansen – Director-General of Fertilizers Europe

IMCO Workshop on the new Regulation on fertilizing products – 12 October 2016

1st Panel: “Achieving the right balance on European market for fertilizing products through the new regulatory framework”

What are we talking about?

The European mineral fertilizer industry makes a significant contribution to Europe’s economy and the profitability of its agri-food sector.

- €12.5 bn* turnover
- €1.1 bn* investment
- 93,000 employees
- 120+ production sites
- €66.2 m R&D 2015

* annual average ten 5 years
Mineral fertilizers: 80% of market value

Market value of fertilizing products (%)

- Mineral Fertilizers
- Organic Fertilizers
- Growing Media
- Liming Material
- Agronomic Additives
- Soil Improver
- Plant Biotransformant

Source: European Commission

Mineral fertilizers can not be replaced

Source: I. Richards

N
- Mineral fertilizers: 46%
- Livestock residues: 52%
- Waste: 2%

P2O5
- Mineral fertilizers: 63%
- Livestock residues: 32%
- Waste: 5%

K2O
- Mineral fertilizers: 79%
- Livestock residues: 20%
- Waste: 1%
4 fundamental principles to reach a balance (1/2)

- The definition of mineral fertilizer must be distinct and precise: nutrients processed into a mineral form, minimum level of nutrients & absence of carbon.

- Legal names of the different categories should reflect market reality: inorganic vs. mineral fertilizer, product blend vs. mixtures.

- The creation of parallel markets should be avoided: particularly true for cadmium where a balance between all concerns should be found.

4 fundamental principles to reach a balance (2/2)

- Farmers have to be fully informed: information about product content should be mandatory on the bag; instructions for intended use & intended application rate should be communicated via modern channels (QR code, webpage...).

- New conformity assessment must simplify bureaucratic barriers: particularly important for producers that deliver a large number of formulas tailored to specific crop use.
“Only 55 grams of mineral fertilizer are needed to produce a kilogram of bread.”
B. Planques - ECOFI

ECOFI perspective on the draft EU regulation on fertilising products

12 October 2016 – IMCO workshop

Benoît PLANQUES – ECOFI representative to DG GROW’s FWG
ITALPOLLINA S.p.A. - Regulatory Manager

About ECOFI

- Producers of organic fertilizers, organo-mineral fertilizers and organic soil improvers
- Members active in most European countries, the Mediterranean and the Middle East
- Accounts for roughly 60% of the European market in organic-based fertilizers, which is worth about €250 million euros
- The industry is dominated by SMEs
Single market imperative

- There is currently no Single Market for organic fertiliser, organo-mineral fertilizers or organic soil improvers.
- The draft regulation is critical to reducing nutrient imbalances.
- Co-existence of national and EU laws: getting the balance right is challenging
  - fostering competition
  - risk of lowering standards if EC Mark doesn’t deliver quality

General comments

- Need to streamline and simplify across PFCs and CMCs:
  - Bring definitions into core text where possible and use the same definitions across categories (e.g. solid/liquid, including suspensions/pastes).
  - Use the same safety requirements across categories to facilitate combined products: Same Cd limit for organic fertilizers, organo-mineral fertilizers and organic soil improvers (aligned with limit for inorganic fertilizers).
- We need language that claims are the primary determinant of the PFC, but may be supported by mode of action, concentration of components and other relevant criteria.
- Ensure that all necessary definitions are present (e.g. material).
- Revise definitions in PFCs 1 and 3, CMCs 2, 6 and 11.
- Ensure that safety requirements actually have a positive impact on human health and do not duplicate existing requirements (e.g. don’t require a duplicate test for a product that was necessary for a component, like an animal by-product).
- Ensure that labelling requirements correspond to actual practice in the market.
Ensure alignment with related regulations

- We support the way REACH conformity is used to streamline the regulatory burden.
- The Animal By-Product Regulation is a pillar of the draft, which ensures adequate safety requirements without duplication of testing.
- Safety requirements for vegetal components should be aligned with those for animal feed derived from the same raw materials (otherwise industry will have to maintain segregated production and transport chains, driving up costs)

The Component Material Categories are the key to circularity

The Circular Economy will only be achieved if we can maximize the amount of organic and secondary raw materials that are used

- CMC 2 (plant materials) is currently too restrictive and excludes many non-chemical processing methods
- CMC 11 (animal by-products) is currently blank, despite there being a number of ABPs treated with EU-approved transformation processes that could be immediately inserted. Before the entry into force, as many national transformation processes as possible should be approved at EU level
Some specific remarks

✓ The definition of organic fertilizers, organo-mineral fertilizers and organic soil improvers exclude the use of “material which is fossilized or embedded in geological formations”. This would eliminate three of the most common sources of organic materials: leonardite, lignite, and peat.
✓ A requirement for C_{org}/N_{org} in organic fertilisers should be introduced to ensure minimum quality and improve environmental management.
✓ There should be minimum thresholds for the combination of N+P+K in multi-nutrient organic-based fertilizers:

<table>
<thead>
<tr>
<th>Organic fertilizers &amp; Organo-mineral fertilizers</th>
<th>Solid</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.5% by mass</td>
<td>5% by mass</td>
</tr>
</tbody>
</table>


Thank you for your attention

• For more information, including ECOFI’s detailed comments on the draft regulation:
  www.ecofi.info
• Contact the speaker benoit.planques@italpollina.com
• Contact ECOFI’s secretariat
  c/o Arnaud Cayrafourcq, Arnaud@prospero.ag
R. Mäder – FiBL Deutschland e.V.

IMCO Workshop
Reforming Single Market for fertilising products

Rolf Mäder

Introduction of Rolf Mäder

Former Experience:
› Employee of the organic farmers association Bioland
› Manager of the Certification body Alicon GmbH (now ABCERT AG)

Currently
› Employee of FiBL Germany and Suisse
› Head of Department Quality Assurance
› Responsible for the inputs list for organic farming in Germany (www.betriebsmittelliste.de)
› Representative of the input-evaluation network (organicinputs.org)
› Responsible for der Biofactor-Database within the EU-Project Biofactor (biofactor-database.eu)
Issues

› Focus on Regulation for Biostimulants
› Topic “recycling phosphor fertilizers as alternative for smooth rock phosphates” is also very important, but too complex for the short given presentation time

Biostimulants: General regulations

› Biostimulants are traditionally used in organic farming
› Registration-/authorization procedure should not be too expensive
› We welcome that Biostimulants are planned to be regulated by fertilizer legislation and not plant protection law
› Definition in Article 46 (3) b "tolerance to abiotic stress " should be changed in "tolerance to stress "

FiBL
Biostimulants: differentiation to Plant Protection Products (PPP)

- Differentiation between PPP and Biostimulants is not always clear
- For Example Compost contents many different microorganism, also registered as PPP-agent
- Biostimulants with active PPP-agents should be classified as Biostimulants too, in special cases
- For example extracts from Algae (even content a small amount of Lamarin) should be classified as Biostimulants because they don’t have a significant plant protection effect

Biostimulants: Microorganisms

- Annex II Part II, CMC 7: MICROORGANISMS
  - List of microorganisms should not be conclusive
    - Addition of remark „such as“ above the list
  - List of microorganisms should be more open, for example:
    - Free living and symbiotic nitrogen fixing microorganisms
    - Mycorrhizal fungi
    - Plant nutrient solubilizing bacteria and fungi
  - Processing methods shouldn’t be limited
    - Annotation “- undergone no other processing than drying or freeze-drying” should be deleted, because there is no technical reason for this limitation
The new regulatory framework for fertilising products
COM IMCO, European Parliament
Brussels, 12th October 2016

Who are Copa and Cogeca?

Copa [23 million European farmers and family members] and Cogeca [22,000 European agricultural cooperatives]. Copa and Cogeca work together in a joint secretariat based in Brussels

Mission
To ensure a viable, innovative and competitive EU agricultural and agri-food sector, capable of meeting growing demand for food/non-food/bioenergy

How?
By promoting the views of European farmers and agricultural cooperatives to influence EU decision-makers, the media and public opinion
Cost price squeeze in the EU 28 - EUROSTAT


Source: CSO – Agricultural Product Price and Input Cost Indices 1995-2016 (Prices available to July 2016)
**Germany: Changes in Agri Product Prices – Input Costs 1995-2015**

![Graph showing changes in agri product prices and input costs from 1995 to 2015.](image)

Agricultural Price Indices 1995-2015 – Product prices and input costs

**EU farmers face increasing competition on the markets**

![Bar chart showing competition in markets for Kazakhstan, Ukraine, and Russia.](image)

Source: Dmitry Rylko, IKAR, IGC Conference, June 2014
EU farmers face increasing competition on the markets

- High fertiliser prices reduce agricultural competitiveness

Copa-Cogeca’s proposals

- Copa-Cogeca calls for the suspension of import duties

Farmers need fertilising products of high quality at affordable prices

- Mineral fertilisers are key inputs for farmers and account for 30% of variable costs across all sectors
- The repeal of Regulation (EU) No 2003/2003 will have consequences for the quality of mineral fertilisers and the transparency of the European market

Copa-Cogeca’s proposals

- A positive definition of mineral fertilisers
- A restricted EU list of types of mineral fertilisers
- A minimum for P solubility
Farmers need to protect their farm land

- End-of-waste criteria for composts and digestates must provide a solid basis for their safe use.
- EU end-of-waste criteria must not be less stringent than the stricter criteria already in place at national level.
- There is no EU harmonisation in the perchlorate level in foodstuffs.

**Copa-Cogeca’s proposals**

- Set up transitional period for Member States which already have stricter legislation for composts and digestates in place.
- Set up maximum levels for xenobiotic components in organic fertilisers.
- The perchlorate level in mineral fertilisers must be fixed as low as possible.

---

Current high quality standards for foodstuffs must be maintained

Tracability and quality assurance schemes forbid the use of non-agricultural organic matter and recycled waste in certain Member States in the EU.

The Commission’s proposals have no impact on those Member States regarding the competition between organic and mineral fertilising products in supplying farmers with fertilising products.
The costs of the new fertilisers regulation must not burden farmers

- Cadmium levels as proposed by the European Commission are not scientifically sound, endanger the EU’s supply and push up the prices of phosphate fertilisers like MAP and DAP.

**Copa-Cogeca’s proposals:**
- Copa-Cogeca supports the EU harmonisation of the cadmium limit at 60 mg or higher after a transitional period of 15 years. This is to enable the development at a larger scale of the circular economy based on the recycling of phosphate from organic matter in the EU.

---

The costs of the new fertilisers regulation must not burden farmers

- Additional costs (labour costs) for ornamental plant growers if they lose the slow or controlled release fertilisers.

**Copa-Cogeca’s proposals:**
- Revision of the criteria proposed for coated fertilisers, taking sound and scientific evidence for these polymers, the risk for the environment and the economic impact duly into account.
- Copa and Cogeca would also like to recommend that the CEN be granted a mandate to develop an appropriate standard on the biodegradability of polymers used to coat slow or controlled release fertilisers.
Useful information must be displayed to farmers through labelling rules

- Labelling rules are the key to take potential risks into account and for efficient uses of fertilising products by farmers

**Copa-Cogeca’s proposals**

- Farmers want useful information like the type of product, its homogeneity, the level of contaminants, the solubility of phosphate, the declaration of various forms of nitrogen, the origin of the organic compounds and the type of waste processing
- The range of the tolerances for the declared contents on the label must be reduced

The new regulatory framework for fertilising products must provide opportunities for farmers

- Copa-Cogeca promotes further incentives and investments to recycle nutrients in particular in livestock manure. This would be in response to the increasing scarcity of phosphorus and to fight climate change
- Competition between livestock manure and organic CE market fertilisers could exacerbate difficulties and thus increase costs for farmers in meeting the nitrates directives

**Copa-Cogeca’s proposals**

- Provide an end-of-waste status for livestock manure
- Provide standards in CMC 11 for processed manure and mineral concentrate
- Digestates produced on farm with agricultural inputs must be excluded from REACH. This would reduced bureaucracy on farms.
About EFBA

- **Represent European Fertiliser Blenders**

  - **We take**
    - Nitrogen fertilisers (N)
    - Phosphate (P) - Especially all forms of solid phosphate
    - Potassium (K)
    - Sulphur (S)

  and mix them to make NPK & S fertilisers

  - (We also add other essential micronutrients too)

- **EFBA members are the principal users of solid phosphate in fertilisers in Europe**

Blenders ask for an 80mg Cd upper limit in the short/medium term

- 60 mg will exclude 25% of imports from North and West Africa - used by blenders
- 40 mg limit would exclude 50%
- 20 mg limit would exclude 100%

- The resultant deficit cannot fully be met by Russian monopoly or existing technology

- A 60mg limit would significantly increase costs of fertiliser to farmers by 10-20% at a time of severe cost pressures

- 80 mg would not increase the Cd loading – 60mg would only reduce loading by a small amount over 100 yrs. - Is the difference significant in the short to medium term? - see overleaf...
A lower limit may not significantly reduce Cd. in soil

- Different crops require different amounts of P – (and thus receive different amounts of Cd.)

<table>
<thead>
<tr>
<th>Crop</th>
<th>Ougen P index of soil</th>
<th>P fertiliser kg/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter wheat</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Spring wheat</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Oats</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Potatoes</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Sugar beet</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Malting</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Cabbage</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Peas</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Lettuce</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

One ‘size’ doesn’t fit all

- 20 mg/kg Cd. in phosphate on cabbage = 260 kg/ha x 20 = 5200 mg Cd./ha

- 80 mg/kg Cd. in phosphate on cereals = 45 kg/ha x 80 = 3600 mg Cd./ha

(i.e. a 4 x higher Cd. limit, but 31% less Cd.).

Can we be consistent with the Nitrates Directive approach?
Look at total soil loading not individual limits?
Other blender concerns

- Can we have simpler labelling please?
  - What’s wrong with current EU 2003/2003 approach?

- More clarity on what is meant by PFC7 ‘Other product blends’?
  - (i.e. excludes PFC 1 blends??)

- Give Biostimulants a chance
  - Dual use products present a real opportunity to reduce fertiliser over-use and optimise nutrient efficiency.

Proposed EU Regulation on Fertilising Products

EFBA Briefing paper
October 2016
Proceedings of the Workshop on Reforming Single Market for fertilising products

K. Sukalac - EBIC

EBIC Perspective on the Draft Regulation on Fertilising Products

The European Biostimulant Industry Council (EBIC) represents 54 member companies, ranging from micro-sized firms up to multinationals, with a European market estimated at €575 million active in the European biostimulants market. Biostimulants help farmers meet growing agricultural demand sustainably by improving nutrient use, crop quality and increasing plants’ ability to withstand harsh growing conditions.

Biostimulants today do not have access to the Single Market

Biostimulants face fragmented national markets, with different requirements and definitions in every country, increasing the costs of doing business and time to market, and preventing economies of scale. That is why we welcome the Commission’s proposal, which we think is a good start. Finalising the regulation is urgent, but it’s also important to get the details right.

All delays, including implementation periods, should be as short as possible.

The Component Material Categories are key to achieving more circular agriculture

To increase the use of bio-based and secondary raw materials, we should avoid adding unnecessary restrictions to the CMCs and should find ways to include all the raw materials that are currently used safely.

- **CMC 2 (plant materials)** is currently too restrictive and excludes many non-chemical processing methods.

- **CMC 6 (microorganisms)** is too limited and provides no way for companies to identify and produce new microorganisms without surrendering the results of their R&D into the public domain, thus subsidizing their competition! Since Article 12 recognizes presumption of conformity on the basis of harmonized standards, which we believe provide a pathway for resolving this issue.

- **CMC 11 (animal by-products).** There are a number of ABPs treated with EU-approved transformation processes that could be immediately inserted. Before the entry into force, as many national transformation processes as possible should be approved at EU level.

Foster innovation

- The current proposal undermines the right of companies to protect their research data, in contradiction to the trade secrets directive approved by the Parliament and Council in mid-April. This is particularly true for bio-based technologies, especially micro-organisms.

- The Product Functional Category should relate to the claims being made, although it can be supported by other criteria such as mode of action, concentration of components, contexts of use, etc. In biological cycles like plant growth, substances and materials naturally serve different purposes in different contexts. The presidency draft has made some useful suggestions that address this.
K. B. Lange - EUBP

Revision of the Fertilisers Regulation – benefits of biodegradable mulch films
Kristy-Barbara Lange, European Bioplastics, 12 October 2016

Who we are & how we define bioplastics

- European Bioplastics (EUBP) was founded in 1993.
- We offer more than 20 years of ‘bioplastic’ expertise.
- We represent 70 companies along the entire bioplastics value chain at EU level.
The Problem

- Every year thin (<25 μm) Polyethylene (PE) mulch film causes approx. 15,000 tonnes of microplastics in European soils

<table>
<thead>
<tr>
<th>Mulch film market</th>
<th>Size (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total European mulch film market</td>
<td>80,000</td>
</tr>
<tr>
<td>Thereof certified biodegradable mulch films</td>
<td>4,000</td>
</tr>
<tr>
<td>Thereof PE mulch films</td>
<td>76,000</td>
</tr>
<tr>
<td>Thereof remaining as microplastics in soil</td>
<td>&gt; 15,000</td>
</tr>
<tr>
<td>Thereof dumped or burned alongside fields</td>
<td>&gt; 30,000</td>
</tr>
</tbody>
</table>

Source: APE, BASF

The solution – a biodegradable mulch film

- Advantages of plastic mulch films:
  > Improve physical soil conditions: increase of soil temperature and humidity
  > Increase yield and improve crops’ quality compared to bare soil
  > Control weed
  > Reduce irrigation water (up to 30% compared to bare soil), pesticides and nutrient leaching (better use of nutrients)
  > Mitigate wind and water soil erosion

After harvest plastic mulches should be removed from the field and disposed of properly according to local legislation, while biodegradable materials can be incorporated into the soil.

Source: Toutkoushian et al. (2016), University of Melbourne; data refers to mustard yield of vineyards in a Mediterranean climate.
High yields without ‘microplastic burden’

- Biodegradable mulch films do not accumulate in the soil over multiple harvest cycles

![Graph showing accumulation level of PE and biodegradable plastic fragments in soil](https://example.com/graph.png)

*Figure 4: Schematic overview of the increase in accumulation of PE and biodegradable plastic fragments in soil (not considering the expected growth rate of the mulch film industry)*


Which requirements for a biodegradable mulch film?

- The label OK biodegradable SOIL guarantees that a plastic mulch film can completely biodegrade without leaving toxic residues into the soil.

- Requirements:
  > Biodegradation (mineralization): 90% in 24 months (test in soil, at room temperature)
  > Ecotoxicology: test on plants growing
  > Fullfill requirements concerning heavy metals: no heavy metals released in the soil

✓ Two national standards: France and Italy
✓ CEN (TC/249) is working on a new standard specifically target on biodegradable mulch film
The EU mulch film market – ready for innovation

- The European mulch film market is amounting to approximately 80,000 tonnes/year
- 5% are currently certified biodegradable plastics mulches
- Main user countries: Italy, France, Germany, Benelux, Spain, Portugal.

When revising the Fertiliser Regulation...

- EUBP recommends to consider certified biodegradable mulch films as soil improver and include them in the revised regulation.
- This would create a level playing field for these innovative materials and products within the EU, and implement the internal EU market.
- And would help to secure efficient food production while considering innovative sustainable approaches using less resources.
Thank you for your attention!
S. Siebert - ECN

European Compost Network

Status of ECN Membership

- 72 Members from 27 European Countries
- ECN represents more than 3,000 treatment plants (composting and anaerobic digestion) with more than 30 M tpa treatment capacities
- Compost production of 12-15 M tpa, used as
  - Organic Fertiliser
  - Soil Improver
  - Mixing component in Growing Media

Resource Potential of Bio-waste - Compost and Digestate

<table>
<thead>
<tr>
<th>Input materials</th>
<th>Resource potential of biowaste</th>
<th>Product application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food waste</td>
<td>125 Mio t bio-waste</td>
<td>Agriculture: organic fertilisers and soil improver</td>
</tr>
<tr>
<td>Garden waste</td>
<td>50 Mio t compost</td>
<td>Horticulture: replacement of peat in growing media</td>
</tr>
<tr>
<td>Crop residues</td>
<td>11,4 Mio t Organic matter</td>
<td>Environment: carbon sequestration and saving of primary resources</td>
</tr>
<tr>
<td>Manures</td>
<td>455,000 t Nitrogen (N)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>390,000 t Potassium (K₂O)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>227,500 t Phosphorus (P₂O₅)</td>
<td></td>
</tr>
</tbody>
</table>

Photo: ISWA 2015
Fertilising Product Regulation – Circular Economy

- **General support** on the objectives of the new Fertilising Product Regulation
- **Boosting organic recycling** by integration of organic fertilising products (compost and digestate)
- Introducing harmonised EU rules as **quasi end-of-waste criteria** for products diverting from organic waste materials
- Creating **access to CE marking and free trade for recycled organic fertilising products** across EU through introduction of **quality assurance procedures**

ECN

ECN Position – New Fertilising Product Regulation

**Aspects for further considerations**

- **Lack of harmonised criteria** for all ‘Product Function Categories’
  - Inorganic fertilisers – organic fertilisers - liming materials – soil improver - growing media
- Need for a **specific input list** for compost and digestate
- Suitable **treatment process requirements** are needed, Animal By-Products Regulation versus proposal for Fertilising Product Regulation

ECN

Download ECN Position: www.compostnetwork.info
Further Information

Thanks for your attention!

Further information
- Factsheets
- ECN News
- Country reports
- ECN-QAS Manual

www.compostnetwork.info
E. Villa - Assoferilizzanti

ASSOFERTILIZZANTI

WHO WE ARE

Assoferilizzanti safeguards and represents all the productive divisions of the fertilizers sector

54 affiliate members

1 bilion € Turnover

90% market representation

3 groups

Mineral fertilizers

Organic-mineral and organic fertilizers, soil improver and growing media

Specialties - biostimulants
PRINCIPLES

WHAT WE THINK
Safeguard and ensure high level of human health and environment protection
Safeguard of agriculture sector

HOW?
• choices based on scientific data
• make a risk assessment evaluation as for the major part of substances of very high concern
• safeguard the SMEs R&D investments

IMPORTANT FOR THE NEW EU REGULATION

EXAMPLES

CRITICAL ISSUE
Introduction of restrictive cadmium limits
Reintroduction of total chromium limit

• the contaminants limits proposed don’t take in account the completeness of scientific information about cadmium and chromium¹
• approach based on hazard rather than risk assessment
• limits very restrictive that aren’t endorsed from a scientific point of view

Assofertilizzanti proposes:
• 60 mg/Kg as unique benchmark for cadmium
• to fix a limit exclusively for hexavalent Chromium

¹ - Reminding and updating the effect of phosphorus fertilizers on cadmium accumulation in European Agricultural Soils — International Fertilizer Society - E. Schönfuss - May 2013
² - Scientific opinion on the risk to public health related to the presence of chromium in food and drinking water — EFSA Panel on Contaminants in the Food Chain — 13 March 2014
EXAMPLES

CRITICAL ISSUE Research & Development’s debasement

- The positive list introduction depresses the innovation and the investments ability
- A limited microorganisms list won’t permit to the farmer to use high technological level of products

We propose the recognition of unlisted microbial biostimulants
P. Jaouen – Group Roullier

Groupe Roullier: a French family-owned business
Plant nutrition – Animal nutrition – Food
7900 employees – 2.5 B€ turnover

Fertilising products business in the EU:
Present in 25 Member States
> 2500 people - 16 production sites
1.5 B€ turnover

Our experience from the regulatory landscape for fertilising products in the EU

Today:
- Reg. (EC) 2003/2003 is efficient for mineral fertilisers but does not cover other fertilising products
- Time to market for innovative products is extremely long
- Differences in products’ portfolio across countries
- Mutual recognition does not work well

Tomorrow:
- A single market for fertilising products
- Ground for innovation due to the architecture of the regulation
- Reduced time to market for innovative products
- Quality and safety criteria
- Administrative burden
Policy Department A: Economic and Scientific Policy

**Technical aspects to consider for setting up a maximum limit for Cadmium (1/2)**

*Production of phosphate fertilisers*

- Decadmation is not available for all types of P fertilisers.

> Figure 4 contains a schematic representation of phosphate fertiliser production pathways. All currently known decadmation processes can only be used for fertilisers being produced via the phosphate acid route. Consequently, several EU manufacturers (BASF, Belgium, YARA).

- Not all phosphate rocks are the same (P2O5 content and solubility) and must be soluble to have fertilising properties.

- Phosphate rock is the only input allowed in organic agriculture.

> In conclusion, it is not feasible to supply the EU market with phosphate fertiliser solely from igneous origins or from sedimentary phosphates with low cadmium content.

- Phosphate recycling will never be sufficient to cover EU needs.

> In summary, whilst recycling of phosphates from organic waste will increase, it is not certain that within the foreseeable future the available quantities will be sufficient to replace imports of animal phosphates with high cadmium content.

- The impact assessment does not take into account the variability of Cadmium for a given source!
Setting up a maximum limit for Cadmium

80 mg/kg $P_2O_5$

the only limit that is:

Efficient  Achievable  Realistic
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