Brussels, 14 November 2017

Draft Minutes
Meeting of the Fertilisers Working Group¹
13 February 2017, Brussels

1. Approval of the agenda and of the minutes of the meeting on 7 November 2016

The draft agenda and the draft minutes of the last FWG meeting were approved without changes.

2. Nature of the meeting

The meeting was attended by Members and Observers of the Fertilisers Working Group listed in the Commission Registry of experts. The meeting was not web streamed and not public.

3. List of points discussed

The COM explained that the intention was not to discuss the proposal for a revised Fertiliser Regulation currently under revision by the Council and the EU Parliament but to mainly help the group to better understand by illustrating with few promising examples which types of new fertilising products may emerge on the market in the future.

Promoting nutrient recovery and nutrient efficiency: the next steps

(a) Scope for the substitution of mineral fertilisers by nutrients from secondary raw materials

The COM recalled that a sub-group of the FWG has been established in order to identify under which conditions certain types of secondary raw materials from struvite, biochar and ash based products (STRUBIAS) may be used in the formulation of CE mark fertilisers under the future regulatory framework. JRC explained that in order to estimate the substitution potential of mineral fertilisers by nutrients from secondary raw materials, three main parameters need to be taken into account i.e. the feedstock availability, the recovery efficiency of the extraction process and the transformation of the recovered nutrients into plant available fertilising products. Moreover, market drivers may play a

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role like the price of the recovered nutrients compared to conventional fertilisers and the
general perception of this emerging market by professional and non-professional
consumers.

Manure, slaughterhouse residues and sludge contain more than 85% of the phosphorus
that could potentially be recovered annually in the EU. Other inputs like woody residues,
food and food processing waste and crop residues have a smaller potential to substitute
phosphate rock-derived fertilisers as they either contain less P or are less available
because of other competing uses. In total, the volume of recovered plant available P
would amount to 1.55 Mtonne P/year if the maximum available feedstock would be
transformed into recycled nutrients. The current annual consumption of mineral
phosphorus is around 1.20 Mtonne P/year.

Currently, STRUBIAS fertilising products represents only 1% of the current EU market
of phosphorus fertilisers. Struvite and ashes might be used to produce water soluble P
fertilisers ("traditional fertilisers"), for which STRUBIAS CMCs can serve as an
alternative/complement to phosphate rock. Depending on the production process applied,
STRUBIAS products could also lead to the production of slow-release fertilisers ("new
fertilisers"). The development of those markets will depend on consumer demand.

The estimated cost to produce a unit of plant available P from secondary raw materials is
for some STRUBIAS production processes similar to Triple Super Phosphate (TSP),
when starting from P-concentrated materials as municipal waste waters, sewage sludge
and slaughter refuse. For manure, production costs are currently still much higher than
for TSP, but the avoided damage cost of environmental pollution from the direct
application of untreated manure should also be considered.

JRC tried to estimate the substitution potential of conventional phosphorus fertilisers
based on the maximum use of feedstock available and three hypothetical scenarios:

a. low acceptance for slow released fertilisers, manure not exploited;
b. pig and poultry manure exploited
   geopolitical issues restricting the imports of P stimulating the EU fertiliser,
   industry makes maximum use of the biomass available to recover phosphorus.

JRC demonstrated that the three scenarios would respectively result in the recovery of
30, 53 and 89% of the amount of phosphorus applied annually on EU soils. More real
future substitution rates will depend on actual feedstock utilisation, market and policy
developments. JRC promised to refine the numbers in the near future.

In conclusion, in the long run, there is a scope to substantially reduce the import of P-
fertilisers from primary raw materials through combined efforts of more efficient P-use
in agriculture and the production of P-fertilisers from secondary raw materials. In order
to realise ambitious recovery targets, industrial investments are needed.

The COM thanked JRC for the enlightening presentation and pointed out that secondary
raw materials could be, under specific conditions, as efficient as conventional mineral
fertilisers. The terminology 'mineral fertilisers' should therefore not be restricted to
phosphate fertilisers derived from primary raw materials but also from secondary raw
materials.

One Member State and one industry association asked clarification about the fraction of
manure that has been considered in the study. JRC replied that more than 2 Mtonne of
phosphorus are excreted by rearing animals every year. JRC considered that around 1
Mtonne P/year accumulates in soils and could thus be theoretically used for fertiliser
production instead, under the presented hypothetical scenario of full use of dissipated P
fractions. The long-distance transports costs of finished fertiliser products would be more
attractive than for raw manure. The environmental pressure in intensive rearing Member

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States would decrease as finished STRUBIAS products would more easily compete with other fertiliser types.

Another association asked why the contribution of biochar to the substitution potential has been left blank at zero in the first scenario. JRC answered that the production cost of biochar are relatively high compared to the other products and there is a high uncertainty about the acceptance of this new product by farmers.

A third association asked clarification on the fate of nitrogen and organic matter when biomass is burned. JRC informed that 1 Mtonne of P corresponds to approximately 5 Mtonne of N and that incineration/combustion will remove most of N and organic matter from initial material. JRC agreed that a trade-off between P, N and organic matter recovery needs to be addressed when developing more realistic scenarios on substitution potential. One Member State indicated that transformation of manure into mineral phosphorus will always be the second choice as arable soils are depleted in organic matter. A CMC dealing with high quality organic matter from dried manure should be developed.

Finally, a second Member State called for the possibility to use food waste as input material for the production of struvite as these products are already on the market.

The COM agreed to share the interim report of the STRUBIAS study with the group via CIRCABC when available.

(b) Role of nutrients from manure and relation with the Nitrate Directive

The COM explained that questions relating to the links between the Nitrate Directive (ND) and the revision of the Fertilisers Regulation have recently emerged at the Council and the EU Parliament. The COM wanted to consult the FWG about the issue that was not addressed during the preparatory phase of the proposal. The objective was mainly to collect the opinion of the group in order to prepare the negotiation phase with the Council and the EU Parliament.

One Member State explained that a distinction should be made between product legislation (under the Fertilising Product Regulation - FPR) and possible use restriction (under the ND). Use restrictions should not be defined in a way that further definition of products would be required.

An industry association and a Member State recognised that the ND has been key in improving the protection of groundwater and surface water from nitrate pollution. The issue is that new technologies are developing rapidly that makes possible the development of new efficient nitrogen fertiliser from manure that would have the same environmental impacts as conventional nitrogen fertilisers. The ND is however an obstacle to the development of such technology as it imposes an application limit in nitrate vulnerable zones (NVZ) for those new fertilisers that cannot be applied in larger amounts than the maximum application limit imposed by the ND. A possible solution would be to develop clear criteria on the agronomic efficacy of nitrogen fertilisers from manure.

An industry association called for large cooperation between public authorities, farmers and industry to remove discriminatory treatments of recycled products while ensuring the environmental protection of NVZ. A Member State proposed to define a point in the production chain where manure could exit the ND under specific conditions.

Another industry association called for more coherence on the interpretation of the provisions of the ND among Member States which, according to that association, could lead to competitiveness disadvantages for the companies located in the Member States where the most stringent rules applies.
The COM clarified that both the ND and the revised FPR are somehow linked but serves different objectives. The COM considered that it would be legally difficult to set out agronomic efficiency criteria in the draft FPR that could then be further used for market restrictions.

A Member of the EU Parliament explained that the revision of the FPR should create a level playing field for fertilising products of different origins. The current definition of animal manure in the ND creates discrimination towards nitrogen recycled from animal manure and prevents innovation in the future.

(c) Role of plant biostimulants

The COM explained that microbial plant biostimulants could significantly contribute to the recovery of soil phosphorus that is no longer available to the plants. To that end other groups of microbial plant biostimulants than those listed in Annex II of the draft FPR need to be authorised if it can be demonstrated that they are sufficiently safe.

The COM announced that a sub-group of the FWG composed of Member States authorities, representatives of industry, EFSA and OSH will be created. Candidates from academics, industry, NGOs will be selected through a call for expression of interest that should be launched before the end of 2017. A calendar for meetings will be then proposed based on the expected work.

The objective of the sub-group will be to prioritize the work of EU agencies by determining whether the candidates fall in the scope of the revised FPR and if it can be demonstrated that those candidates are safe and efficient. The EU market potential will be also examined. The candidate list will then be reviewed by a panel of scientists in EFSA and OSH which will assess the risks for the environment and human health and will deliver an opinion. This will be examined by the COM which may then propose the inclusion of the selected candidates to the Regulatory Committee, should the delegation of power proposed in the FPR apply. The COM argued that the possible inclusion of new microbial plant biostimulants shall be done through a sound examination of the risks because of the proximity of such products with plant protection products (PPP).

An industry association welcomed the proposal of the COM to set up a sub-group dealing with microbial plant biostimulants and recalled its support to clarify the borderlines between the PPP and PB.

(d) Role of precision farming in increasing nutrition efficiency and reducing environmental impacts of fertilisers

The idea was to listen how agro-efficiency gains can be achieved by providing new digitised services to farmers. The role of the revised Fertiliser Regulation is also to contribute to the intelligent use of a broader range of fertilising products.

FATIMA (Horizon 2020 project)

The COM explained that main objective of the project is to develop new farm tools and service capacities to help the EU intensive farm sector to optimise nutrients and water management and productivity. The general idea is to produce more crops with less impact on the environment and the food chain and to provide EU famers with tools that would allow them to remain competitive by reducing the costs of fertilisation.

The selected project is run by a Spanish University and will end up in February 2018. The consortium is composed mostly of EU universities but small companies interested in the development and commercialisation of such advanced tools are also represented.
Farmers are also involved to help to develop practical tools. The project is very practical with demonstration on fields of the proposed solutions.

The FATIMA project proposes to integrate different data (e.g. earth observation, soil and plant physiological) from different existing technologies mounted on a tractor. The data are translated into detailed maps of fertiliser needs which are automatically fulfilled by an on board intelligent spreader. First results show that, compare to current farmer practice, it is possible to produce the same amount of grains by applying up to 38% less nitrogen fertilisers.

More information is available here:

http://fatima-h2020.eu/

Robots Advances for Precision Farming (Horizon 2020 project)

As the call for application was not yet finalised by the time of the presentation, the COM explained that only information about the content of the call will be shared. The objective is to propose new robotics for precision farming that go beyond the current limitations (robustness, costs, devices allowing more targeted fertilisation and which are easy to manage).

The project is run under the research and innovation programme meaning that the expected results will not necessarily lead to practical developments.

More information is available here:

Topic group on Agricultural Robots

https://eu-robotics.net/ppp/objectives-of-our-topic-groups/

Precision farming (private project)

A fertiliser company presented its vision of sustainable agriculture in Europe. Sustainable crop production needs to be developed in order to be able to feed 9 billion people on earth by 2050. However, recent progresses in improving crop yields and expanding land cultivation have already shown severe limitations. Modern precision farming should be constantly improved to continue to do more with less to overcome these limitations.

In that context, the company said that knowledge sharing with professional farmers will be key to achieve that objective. The company aims at reducing the risks of over-fertilisation thereby contributing to societal challenges.

Responses to future challenges will lead to the creation of new jobs opportunities (e.g. agri-ICT operators able to interpret big data). Agro-services contractors will emerge as farmers may not be able to support the necessary investments in advanced technologies. Lastly, the company called for more research and development in more efficient and cost-effective fertilising products.

The COM clarified that it is a challenge to define a legal and regulatory framework that would help the transition to a more efficient use of resources in agriculture. For example, agro-services contractors may require new types of information that is not required today.

An agricultural association warmly welcomed the presentations. It underlined that other agricultural input than fertilisers will also be affected by the foreseen technological change. This revolution calls for a massive data collection at farm level in order to be able to master the different variables that affect the quality and quantity of grains.
produced on a parcel. The association confirmed that fertilisers will continue to play a central role. The future legislative tool is a first response to the challenges ahead but more flexibility in the production of fertilisers may be required to respond adequately to crop needs at parcel level.

(e) Sustainable claims

The COM recalled that under the revised Fertiliser Regulation, sustainability claims will have to be justified as it may be used more and more as a selling argument. The COM wanted to raise awareness on this important provision and called the group to engage in discussion to better define what sustainability concepts/claims means for each product categories covered by the future regulation. The COM argued that some conceptual works and discussions are needed within the frame of the group before going to the standardisation steps.

Screening exercise on standards: report by the CEN and follow-up

The COM informed that the time needed to develop robust analytical methods standards is a concern for the co-legislators. CEN will face two important challenges. First CEN will engage in the development of new analytical methods as the scope of the Regulation will be considerably extended. Second, the quality of the future harmonised standards will be more thoroughly checked than in the past in particular for their ability to demonstrate that a given product is in compliance with a specific requirement of the future Regulation.

The COM recalled that the FWG has contributed to identify which relevant analytical methods are available today and which gaps need to be filled in.

CEN answered that several Technical Committees (TCs) have looked positively at the preparatory work carried out by the FWG and confirmed that most of the lists have already been allocated to different CEN TCs. Moreover, in order to address the future COM request, a dedicated TC on plant biostimulants has been created and will become operational in April 2017. A specific TC on contaminants is envisaged. Lastly, an ad-hoc group composed of representatives of all TCs and other CEN members will be created once the COM request is received. This group will coordinate the work of the involved TCs and will be tasked to verify whether the standardisation request is well processed and whether deliverables meet the COM requirements.

Regarding the timing, the CEN management centre explained that EN standards are usually developed in 27 months but that this period can be seriously extended depending on the number of requests and taking into account that unexpected technical problems may arise during the development in particular in non-explored areas.

The COM recalled that harmonised standards are used in support of legislation which means that the COM mandate will only cover methods needed to verify the conformity of products to the legal requirements.

The COM explained that harmonised standards should also reflect the technical and human capacities of the laboratories that will be entrusted with market surveillance duties. Such laboratories may not always have access to the most advanced analytical methods and whatever simplifies their work is highly welcomed. At the same time, standards should not prevent innovation and therefore, the COM suggested that several test methods could be referred to in harmonised standards. The equivalence of the different methods in their capacity to demonstrate the compliance of products to a given legal requirement should be proven.
CEN TCs informed that the 27 months period mentioned earlier is the typical figure under normal circumstances. If TCs are requested to work on a plethora of methods, the proposed timing might be largely exceeded. The CEN TCs called for a prioritisation of the work. Methods with known statistical data should be proposed as harmonised standards first. Requests to cover new instrumental methods should be addressed in a second phase. On the polymer biodegradability test, CEN explained that the results of laboratory tests should be confirmed by field trials which will require a lot of time.

The COM explained that industry agrees on the principle that polymer coatings should be made biodegradable which means that 90% of the carbon present in the polymer should be converted into CO₂. The main issue is to agree on the period needed to reach that biodegradability level. The COM considered that field trials are unnecessary in a first step. Test should be conducted in standardised laboratory conditions. Those conditions may be challenged in the future and CEN may have to revisit its assumptions but at least a first step would have been done. Anything that is better than status quo would be already an achievement. Finally concerning plant biostimulants, it was recalled that demonstration of safety shall not be allocated to harmonised standards.

An industry association explained that CEN has recently issued recommendations on standard needs to support phosphorus recycling. The report should be made available to CIRCABC as some of the recommendations coincide with some aspects of the COM proposal notably on crop nutrient availability.

AOB

No point was raised

4. Conclusions/recommendations/opinions

The group did not conclude on the topics on the agenda as all of them shall be followed up in the next months.

5. Next steps

The COM accepted to launch by the end of 2017 a call for expression of interest for the creation of a sub-group on microbial plant biostimulants and to prepare a mandate for the sub-group that will be in charge of assessing their risks for the environment and human health.

The COM should gather experiences, guidelines from the group on how existing sustainable claims have been justified and agreed by private or public bodies. The information should then be passed to a future sub-group in charge of identifying which sustainable claims could be converted into EU harmonised standards.

The COM should propose a first draft of the standardisation mandate depending on progress made by the co-legislators to revise the COM proposal.

6. Next meeting

The next meeting of the FWG is scheduled for 13 November 2017.

7. List of participants
Representatives of competent authorities for the fertilisers Regulation from AT, BE, BG, CZ, DE, DK, EE, ES, FI, FR, HU, HR, IE, IT, LT, LU, LV, NL, PL, PT, SK, SE, UK, CH, NO (Members)

Representatives of COM services other than DG GROW

Representative of the EU Parliament: chair of the AGRI Committee

Representatives of the following organisations (observers): APEP, CEN, COCERAL, Copa – Cogeca, EBA, EBIC, ECOFI, ECN, EFBA, ESPP, EUREAU, EUROFEMA, EUROSLAG, Fertilizers Europe, FEAD, IMA-Europe, IFOAM EU

Private expert: YARA

Chair: European Commission, DG GROW, Unit D2, Chemicals Industry
ANEX

MEETING OF THE FERTILISER WORKING GROUP
ON 13 FEBRUARY 2017

AGENDA

10:00 - 13:00
(1) Adoption of the draft agenda
(2) Adoption of the draft minutes of the Fertilisers Working Group meeting of 7 November 2016
(3) Promoting nutrient recovery and nutrient efficiency: the next steps
   (a) Scope for the substitution of mineral fertilisers by nutrients from secondary raw materials
   (b) Role of nutrients from manure and relation with the Nitrate Directive
   (c) Role of plant biostimulants
   (d) Role of precision farming in increasing nutrition efficiency and reducing environmental impacts of fertilisers
   (e) Sustainability claims for CE fertilising products: the role of standards

14:00 - 15:00
(4) Screening exercise on standards: report by the CEN TCs and follow-up
(5) AOB