

European Commission
DG Environment, Unit B1 – Agriculture, Forests and Soil
1049 Brussels
Belgium

27 November 2013

Dear Sir/Madam

**Response to Consultative Communication on the Sustainable Use of Phosphorus
Brussels, 8.7.2013 COM(2013) 517**

AMDEA is the UK trade association for large and small domestic appliances, heating, water-heating, floorcare and ventilation. We represent many manufacturers at UK, European and International level, with government and EU political institutions, in standard and approvals, with non-governmental organisations, with consumers and the media. AMDEA protects and promotes its members' interests in all these spheres.

AMDEA welcomes this communication on the sustainable use of phosphorus (P). AMDEA urges the EU to give positive encouragement to reducing "unnecessary use" (i.e. where there are substitutes for P) and to the recycling of P. AMDEA considers these risks associated with using recycled P should be considered proportionately to the risk of not recycling P. Because this is a global issue, there are business opportunities for companies in the EU to develop technologies for recovering and recycling P.

Q1 – Do you consider that the security of supply issues for the EU in relation to the distribution of phosphate rock are a matter of concern? If so, what should be done to engage with producing countries in order to tackle these issues?

It could be counterproductive to exaggerate the rate at which the earth's reserves are being exhausted and the security of supply of P issue, but undoubtedly these should be of concern to everybody.

Morocco and Western Sahara have by far the largest of the currently known reserves of P in the world and will be in a strong position to dictate terms making security of supply even more of an issue than oil and OPEC.

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Q2 – Is the supply and demand picture presented here accurate? What could the EU do to encourage the mitigation of supply risks through i.e. the promotion of sustainable mining or the use of new mining technologies?

Yes, the communication appears to report the supply and demand picture as accurately as current knowledge allows. Given the geographic distribution of reserves, there seems to be little that the EU could do regarding sustainable mining but it can promote recovery and recycling from all possible sources.

Q3 – Do you consider that the information on the worldwide supply and demand of phosphate rock and fertiliser is sufficiently available, transparent and reliable? If not, what would be the best way to obtain more transparent and reliable information at EU and global level?

No comment

Q4 – How should we handle the risk of soil contamination linked to phosphorus use in the EU?

AMDEA cautions against giving disproportionate consideration to the cadmium issue or to other adventitious constituents of phosphate fertiliser. Some of AMDEA's members manufacture food waste digesters (FWD) that fit under kitchen sinks (in standard outlets) and grind food waste so that is conveyed easily through sewers where it becomes part of sewage sludge. Thus FWD divert food waste at source. Modern sewage sludge contains $<30 \text{ mgCd/kgP}_2\text{O}_5$ and consequently Cd accumulation in soil is slower than with some mineral fertilisers. The carbon to nutrients ratio in ground food waste is a larger than in "normal" sewage and consequently its inclusion in sewage assists biological nutrient removal.

Q5 - Which technologies have the greatest overall potential to improve the sustainable use of phosphorus? What are the costs and benefits?

Ground food waste assists in accomplishing the requirements of the Urban Wastewater Treatment Directive for removing N and P. It does this by improving the carbon to nutrients ratio, which feeds the biomass in the sewer biofilms and in the wastewater treatment works. Currently there is a choice of chemical precipitation or biological removal of P. Chem-P requires addition of iron or aluminium salt solutions. Bio-P often requires addition of supplementary carbon (often acetic acid) unless there is discharge of food into the collection system (e.g. food and/or drink industry or food waste disposers). The prices of these chemicals are rising. It is easier to recover P from a bio-P process than from a Chem-P process.

Q6 – What should the EU promote in terms of further research and innovation into the sustainable use of phosphorus?

There has already been research into the effect of ground food waste in Germany, Italy, Netherlands, Sweden and other member states. Further field research quantifying the effects on in-sewer processes, on wastewater treatment especially related to tipping the balance in favour of Bio-P and P-recovery and on biogas production would all be useful.

Q7 – Do you consider that the available information on the efficiency of phosphorus use and the use of recycled phosphorus in agriculture is

adequate? If not, what further statistical information might be necessary?

No comment

Q8 – How could the European Innovation Partnership on "agricultural productivity and sustainability" help to take forward the sustainable use of phosphorus?

AMDEA considers that using biosolids (treated sewage sludge) on land is a very important part of conserving and recycling P. However, many MS still do not appreciate this. It would be useful if the EIP were to promote balanced information about the risks and benefits of biosolids.

Q9 – What could be done to ensure better management and increased processing of manure in areas of over-supply and to encourage greater use of processed manure outside of these areas?

No comment

Q10 – What could be done to improve the recovery of phosphorus from food waste and other biodegradable waste?

As discussed in the answer to Question 4, FWD divert food waste at source. People find them convenient and hygienic to use (more than 80% acceptance, which is better than biowaste collection). Physical contaminants (plastic film, tableware, etc.) which are the bane of biowaste programmes do not pass out of the grind chamber so they do not pass to the wastewater system. Ground food waste passes through the wastewater collection system easily; it feeds the biomass, which captures dissolved P and converts it to particulate P that becomes part of sewage sludge. Food waste also contains some P itself and this too becomes part of sewage sludge. Anaerobic digestion is the most prevalent form of sludge treatment in the EU by weight. Recovering P by recycling biosolids to land (as P fertiliser replacement) is a very efficient method. Recovering from incinerator ash, process liquors and from wastewater are developing technologies. This all means that FWD are a good option for recovering of P from food waste and is synergistic with recovering it from wastewater.

Q11 – Should some form of recovery of phosphorus from waste water treatment be made mandatory or encouraged? What could be done to make sewage sludge and biodegradable waste more available and acceptable to arable farming?

AMDEA considers that recovery of P from wastewater treatment should be encouraged. This would also have the effect of making member states look again at their attitudes to use of biosolids in agriculture, just as Sweden has. The JRC-IPTS's current proposal for excluding sewage sludge from the End of Waste criteria is unhelpful. By the JRC's admission, there is no scientific reason from excluding it; the decision was political.

AMDEA heartily supports the widening of the debate on the crucial issues around the sustainability of phosphorus use and would request to be included in any further consultations concerning the sustainable use of phosphorus.

Yours sincerely

A handwritten signature in black ink that reads "Douglas Herbison". The signature is written in a cursive style with a long horizontal stroke extending to the right.

Douglas Herbison
Chief Executive