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Innovators for the environment

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**Comment and suggestion to Regeringskansliet for input on the Proposal for a European Parliament and Council Regulation COM (2016) 157 establishing rules for the supply on the market of CE marked fertilizer products and amending Regulation (EG) No 1069/2009 and (EG) nr. 1107/2009**

Dear Madam/Sir,

Thank you for the opportunity to comment on the Proposal for a European Parliament and Council Regulation COM (2016) 157 establishing rules for the supply on the market of CE marked fertilizer products and amending Regulation (EG) No 1069/2009 and (EG) nr. 1107/2009. Swetree Nutrition AB (org nr 556995-8423) is a biotechnology company offering innovative plant nutrition solutions that have emerged from fundamental research at The Swedish University of Agricultural Sciences. We encourage and support the principle of sensible regulation of the fertilizer industry, fertilizer product marketing and labelling standards, and in the broadest sense would like to see standards in place that promote sustainable management practices in plant-based production systems of all types.

Specifically, for reasons that underpin marketplace trust, we suggest as a minimum that, in accordance with its labelled claims, a fertilizer product must be defined as having the capacity to deliver a stipulated quantity of nutrition that can relieve nutrient deficiencies in plants. Some organic feedstocks are hydrolysed and marketed as fertilizers today that simply do not contain an adequately concentrated source of nutrition to effectively alleviate nutrient deficiencies if used according to the recommended application rate on the label. Nutrient concentration x Application rate will influence the overall cost basis of using a product. It

must be possible to use the product as directed on the label to achieve a minimum plant nutritional content in order to be classified as a fertilizer.

In addition, the chemical form(s) of the nutrient and nutritional composition must be known and stable within an acceptable tolerance range. This is a necessary requirement if the end user is expected or seeks to implement best practice because leaching rates, nutrient recovery rates and plant responses depend on the form of the nutrient being applied. In the case of nitrogen (N), the soil binding capacity of nitrate ( $\text{NO}_3^-$ ) and ammonium ( $\text{NH}_4^+$ ) ions compared to organic N forms such as amino acids vary by orders of magnitude (Öhlund and Näsholm, 2002). This directly influences the extent of leaching and, at a landscape level, can impact nutrient loading in aquatic ecosystems which risks negative environmental consequences such as eutrophication. Some feedstocks are highly heterogeneous and naturally exhibit a high degree of variation in N content depending on the source and possibly the season. The stability/lability may depend on the nature of the feedstock and the production technique employed which could mean the relative fraction of organic-to-inorganic N contained in the product may change over time, perhaps introducing a need to limit shelf life with a “best before” date. In short, we advocate the principle that a product labelled as an organic N source should deliver organic N when applied to the soil or used in a hydroponic system.

We recognise the value for SweTree Nutrition to participate in the circular economy. Our amino acid based fertilizer technologies, marketed under the arGrow® trade mark, are a stand out example of the broader potential for the adoption of organic plant nutrition. We continue to maintain a high level of investment in R&D and prioritise technical expertise in order to verify the performance of our products and understand the environmental consequences of the full product life-cycle. A great deal of work remains to be done if the potential role of the fertilizer industry in the circular economy is to be fully realised. We take our responsibility to the environment and future generations seriously as we look to political leadership for clarification of EU standards as a mechanism to build confidence in best practice as an industry norm and stakeholder expectations. In this context we see the regulatory framework as critical to establishing the conditions necessary for the continued growth in the adoption of environmentally sustainable plant production principles. We strongly encourage the review process of the EU regulatory framework for the fertilizer industry to fully consider the consequences of maintaining standards where benefits can be credibly substantiated and based on verifiable data and product quality assurance.

Thank you once again and please do not hesitate to contact us for further comment or discussion on this matter.

Kind Regards,

*Jonathan Love*

#### Cited Reference

Öhlund, J. and Näsholm, T. (2002) Low Nitrogen Losses with a New Source of Nitrogen for Cultivation of Conifer Seedlings. *Environ. Sci. Technol.*, 2002, 36 (22), pp 4854–4859