

# **Soil Fertility and Plant Nutrition Symposium on 21 August 2018**

**AND**

## **Post Symposium Workshop on 22 August 2018**

### **SUMMARY OF PERTINENT ISSUES RELATING TO GROUP 3 REGISTRATIONS**

#### **1. Symposium**

“Effective Stewardship of Fertilizer in Practice”

The presentations are available on the Fertasa website.

Aspects relating to products that would fall under Group 3 registration requirements were highlighted in most, if not all, the presentations.

These include nitrification and urease inhibitors, controlled release and water retention products, humic, fulvic and other organic acids, seaweed products, plant extracts, products of animal origin, products improving “soil health” and “soil condition” as well as various biostimulants.

The complexity of the soil microbial ecosystem and the importance of understanding and cherishing it was emphasized by several speakers.

The emerging and increasing importance of biostimulants and of why and how they function in soil and plants is fast moving to the molecular level of understanding. Ways of establishing the efficacy of all these products, especially in improving nutrient use efficiency and plant growth are not only local, but also international challenges.

#### **2. Workshop**

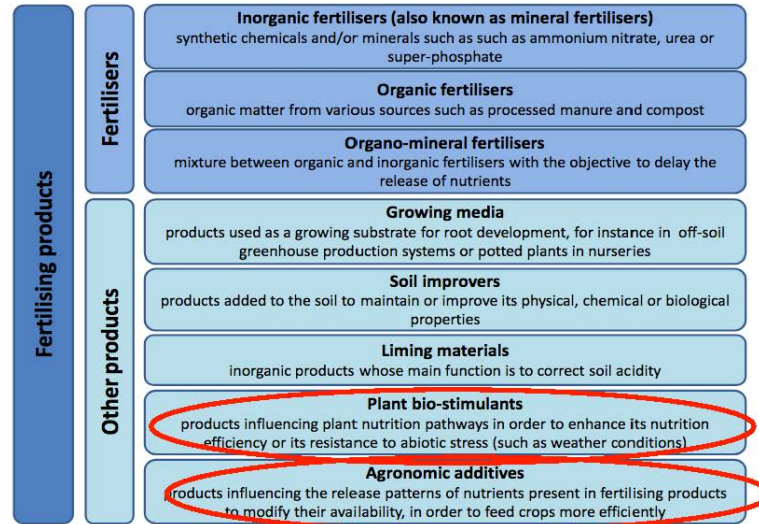
During the Post Symposium Workshop, Prof Patrick Brown and Prof Patrick du Jardin elaborated on aspects of their presentations from the previous day.

Prof Brown emphasized the temporal importance of certain nutrients at critical growth stages of the plant cycle, showing that normal uptake rates from the soil were often insufficient for vital yield establishing processes. In such cases foliar augmentation had extremely beneficial effects.

He also emphasized the importance of establishing functionality and intermediary causal mechanisms and discussed cutting-edge technology currently being used.

Prof du Jardin, on specific request, discussed the Regulatory Framework for Registration of Biostimulants. In this regard, the following slides are pertinent:

# Classification of Fertilizer Products (adapted from European Commission):



Data source: adapted from European Commission [impact assessment](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/582010/EPRS_BRI(2016)582010_EN.pdf), 2016.  
[http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/582010/EPRS\\_BRI\(2016\)582010\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/582010/EPRS_BRI(2016)582010_EN.pdf)



## Regulation of Biostimulants:

- In EU:
  - Finalized text on *CE-marked fertilising products* expected by Spring 2019
  - Principles : *Product Function categories* (e.g. 'biostimulant') and *Component Materials categories* are defined by EU-harmonized standards.
  - Compliance to standards should ensure safety and efficacy, and be communicated to the end user by product labeling
  - Biofertilizers are regarded as microbial biostimulants and included in a positive list.
- IN US:
  - Biostimulants proposed to enter the 2018 Farm Bill, with a claim-based definition, but failed to pass the House of Representatives and Senate (until now).
  - EPA guidance, providing non-binding provisions on several 'claims' covered by biostimulant products, is in progress (public consultation opened?)

## Setting standards for biostimulants:

- EU: Prerequisite of EU-harmonized standards in order to implement the new regulation on CE-marked fertilizing products
  - European Technical committee (**CEN/TC 455**) to do the job (together with WGs), within 2-3 years (?)
  - Many technical and regulatory issues pending
  - Application of Standards is mandatory in EU and EFTA countries.
- World : **ISO/TC 134** on '*Fertilizers, soil conditioners and beneficial substances*' has started working on Biostimulant standards (ad hoc WG liaising with the CEN/TC 455)

## General conclusions

- There is need to increase NUE in crops.
- Biological solutions can be derived from beneficial microorganisms and natural substances.
- There is a growing interest on Biostimulants, as reflected by the:
  - raising awareness of the scientific community,
  - increasing R&D investment by the industry,
  - regulatory advances.
- Still a major need to demonstrate efficacy in diverse field situations and to better understand the action mechanisms of biostimulation.



### A Final Word

It was clear from the presentations and recommendations, especially at the Workshop, that we are not far behind the rest of the world in our approach.

Much can be learned, however, and this needs to be taken aboard on the way forward, especially regarding the EU product specific standards being developed.

The approach of classifying fertilizer products is useful for recommending category-specific requirements. It is being suggested that this could be modified to better meet our own needs.

A proposal in this regard, as part of the envisaged way forward, is being circulated to Fertasa Members.

These events have made a valuable contribution to the way forward for Group 3 registrations.

**Prof Robin Barnard**