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Biostimulants: An OPP Perspective

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PLANT BIOSTIMULANT OVERVIEW

- **Relatively new, but growing product category**
- **Global market estimated to be \$3.9 billion in 2013, with a combined annual growth rate of 14.6% between 2013 and 2018.**
- **European market estimated to be up to \$1.4 billion in 2013**
- **US market difficult to estimate because products described as fertilizers, soil amendments, or plant regulators depending on Federal or State authority**



PLANT BIOSTIMULANTS

- **Contain numerous naturally-occurring substances and microbes already present in environment**
- **Stimulate processes in plant & soil**
- **Enhance plant growth/development, yield, crop quality, nutrient/water use efficiency**
- **Increase resistance to pathogens & environmental stress**
- **Add/foster development of beneficial microbes in rhizosphere**
- **Many products are, or combined with seaweed extracts**



BIOSTIMULANT REGULATORY ISSUES

- **No clear definition, statutory or otherwise**
- **Numerous products of uncertain composition**
- **Some product label claims may trigger State/Federal enforcement actions**
- **Uncertainty in the regulated community**
- **Uncertainty in the State/Federal regulating community**
- **FTE time devoted to enforcement issues**
- **Rapidly growing product category needing regulatory clarity**



No Federal Statutory Definitions for Biostimulants



Plant Regulators

FIFRA Definition [Sec 2(v)]:

“...any substance or mixture of substances intended, through physiological action, for accelerating or retarding the rate of growth or rate of maturation, or for otherwise altering the behavior of plants or the produce thereof...”

Does not include:

- * plant nutrients/nutritional chemicals**
- * trace elements,**
- * plant inoculants,**
- * soil amendments,**
- * vitamin-hormone horticultural products**



VITAMIN-HORMONES

Statutory Definition: 40 CFR 158.6(f)

“A product consisting of a mixture of plant hormones, plant nutrients, inoculants, or soil amendments is not a “plant regulator” under section 2(v) of FIFRA, provided it meets the following criteria:

- (1)...meets the criteria ...for Toxicity Category III or IV; and*
- (2) ...is not intended for use on food crop sites, and is labeled accordingly.”*



Label Claims

- **Plant Regulator claims trigger regulation under FIFRA**
- **What is a Plant Regulator claim?**
 - **Gray area without a statutory definition**
 - **Viewed in context of intended use of product and other claims on label**
 - **Vitamin-hormones/biostimulant claims reviewed “case-by-case” (product specific)**



Label Claims for Plant Regulators

- **What does EPA Evaluate?**
 - Food use?
 - Proposed use rate vs. intended result
 - Actual fertilizer benefit?
 - Known Biochemical/Microbial a.i present?
 - Overt/IMPLIED plant regulator claims?
 - Valid, significant alternative use



Where Do We Go From Here?

- **Exempt/Exclude from Federal regulation?**
 - **Highly unlikely for food use products!!!!**
- **“Light-Touch” regulatory pathway?**
- **Align with proposed EU Fertilizer Law?**
- **Business as usual – FIFRA Section 3 Registration?**



Where Do We Go From Here?

- **BPPD is currently developing guidance based on the different categories of plant biostimulant products, sources, and use sites**



For Further Information Contact:

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