

THE LACK OF A STATUTORY DEFINITION FOR PLANT BIOSTIMULANTS AND REGULATORY FRAMEWORK HAS LED TO UNCERTAINTY REGARDING THE PATH TO MARKET FOR PLANT BIOSTIMULANTS AND OTHER INNOVATIVE AGRICULTURAL PRODUCTS.

OVERVIEW

While the term “plant biostimulant” is in broad commercial use globally, no U.S. State or Federal agency officially defines the term. Plant biostimulants are currently regulated under different labels and regulatory regimes by different states resulting in confusion and disruption in the marketplace. Plant biostimulants are not intended to mitigate or kill pests and are not intended to alter the natural growth behavior of a plant in a manner which it would not normally behave under optimal growing conditions.

FIFRA includes “plant regulator” in its definition of “pesticide,” and defines “plant regulator” as “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.” However, FIFRA specifically excludes certain plant regulator substances from regulation, such as plant nutrients, plant inoculants, soil amendments, and nutritional chemicals. In particular, “nutritional chemicals,” which is specifically listed within FIFRA, is notably absent from 40 CFR 152.6(g), “Substances Excluded from Regulation by FIFRA” and has not been defined by the U.S. Environmental Protection Agency (EPA) since the enactment of FIFRA 60 years ago.

The lack of a “nutritional chemical” definition has created an unclear path to regulatory approval and hindered market access for innovative agricultural products. The congressional record (including testimony*) and literature around 1959 points to the intent of the term. Reviews of contemporaneous literature in agronomy cite examples closely aligned to the definition of nutritional chemicals and plant biostimulants, including references to chelates and the roles of microbial metabolites in crop nutrition. Congress and state agriculture regulatory bodies knew that nutritional chemicals had a positive interaction with plant nutrients but were not a plant hormone or other chemicals as defined under FIFRA. Therefore, at least 15 states regulated substances, considered today to be biostimulants, under their fertilizer law.

SOLUTION

To provide a clear and predictable process for selling and marketing plant biostimulants in the U.S. and fully implement the statutory exclusions set forth over 60 years ago in FIFRA Sec. 2(v), Congress should direct EPA to add the following language:

40 CFR 152.3 - A plant biostimulant is a substance(s), microorganism(s), or mixture(s) thereof, that, when applied to seeds, plants, the rhizosphere, soil or other growth media, act(s) to support a plant’s natural nutrition processes independently of the plant biostimulant’s nutrient content. The plant biostimulant thereby improves nutrient availability, uptake or use efficiency, tolerance to abiotic stress, and consequent growth, development, quality or yield. **

40 CFR 152.6(g)(4) - A nutritional chemical product, including some plant biostimulants, contains a substance or substances intended to interact with a plant nutrient in a manner which improves nutrient availability or aids the plant in acquiring or utilizing plant nutrients.

* Testimony to Congress by Albert Heagy, Association of American Pesticide Control Officials, 1959.

**U.S. Department of Agriculture proposed definition in consultation with the EPA in the 2019 “Report to the President of the United States and United States Congress on Plant Biostimulants”