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New field trial indicates biostimulants can enhance nutrient use efficiency (NUE)Â

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Efficient use of resources is key to maximizing yield potential and optimizing a grower's return on their fertilizer investment. Improving nutrient use efficiency (NUE) is a major concern for farmers as they plan input applications.Â

In a recent study on biostimulants, growers cited an increase in nitrogen efficiency and a decrease in fertilizer expenses as one of the key drivers for the use of biostimulants. As growers look to optimize inputs while meeting productivity goals, address regulatory pressure, and ultimately improve ROI, biostimulants provide a powerful tool to increase NUE. MArket analytics company Stratovation Group recently published the benchmark study observations on Farmer Perceptions of agricultural biologicals teaming up with TFI, Ara and DCLRS.

Increasing NUE: Legislation & Restrictions

Large fertilizer applications are an effective way to maximize yield, but this can result in offsite nutrient loss, which has led to increasing regulatory pressure. The European Commission aims to reduce nutrient losses by 50% by 2030, while maintaining soil fertility for crop production. This is projected to result in an overall 20% reduction in NPK fertilizer inputs. Compounding this challenge of reduced inputs, it is well known that 25â??65% of fertilizers applied to crops are not fully utilized. Fertilizer efficiency can be impacted by a great number of factors, including environmental conditions, crop management, water quality, and soil health. As growers contend with these challenges, many are turning to biostimulants to optimize their NUE and increase their return on investment in fertilizer.

Increasing Efficiency

FBSciences, a global leader in the innovation and commercialization of climate-smart biorationals for agriculture is also a leader in NUE.Â Through proprietary biostimulant technology, TransitÂ® forms the foundation for comprehensive crop nutrition products. With Transit SoilÂ® and Transit FoliarÂ®, flagship biostimulant products, nutrients are rapidly uptaken, absorbed, and translocated inside plants, resulting in improved NUE, both of which are applied and those already present.Â

This increased nutrient uptake and utilization of nutrients means that more of what growers apply will actually get into the crops, resulting in less runoff and leaching, and less waste of a grower's fertilizer dollar. Increased NUE also reduces the necessary amount of applied fertilizer to achieve the same crop yield, meaning the same performance/results can be achieved with a lower application rate of other products. With soaring nitrogen fertilizer prices, being able to maintain efficacy and results with a lower application rate is crucial.