

HOW MICROBES COULD BE A TOMORROW'S PILLAR OF PLANT NUTRITION

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In the current agroecological transition, a main challenge is to preserve production levels and environmental health while using fewer conventional inputs of synthetic origin, and emphasize use of natural products based on or derived from microorganisms.

For 10 years Agrauxine has been developing a range of biosolutions for optimizing crop nutrition by improving biological, chemical and physical interactions between plants and soil. These help in fertilizer use efficiency, a key element in the performance and sustainability of cropping systems.

Agrauxine is selecting the best microbial based technologies, yeasts, yeast derivatives, bacteria and fungi, using its AgBiotech platform. This process combines diverse screening and characterization methods based on *in silico*, *in vitro* and *in planta* assessments.

Applied to soil or seed, or mixed with fertilizers, these new bionutrition technologies offer many new tools to growers like:

1. Stimulating the activity and diversity of microorganisms, naturally living or inoculated in the soil, which play a beneficial role in nutrient cycles,
2. Facilitating the availability of nutrients (e.g. nitrogen, phosphorus), improving the use-efficiency of fertilizers (through fixation, mineralization or solubilization), promoting their assimilation by the plant,
3. Conditioning the rhizosphere to provide the plant with the optimum environment for its growth and development.

Agrauxine's scientists and agronomists are filling the gap between the scientific knowledge of soil microbiome and its practical agronomic application, from the lab to the field. The potential for commercially available innovation that microbes offer as AgBiologicals is just at its beginning.

