

KINETIC™

Manganese

Nutrition

Biostimulant



Timing:
Foliar



Nutrient Type:
Micronutrients



Formulation:
Liquid



Manganese enhances photosynthesis and nitrate assimilation in the plant

Kinetic™ is the premium line of foliar micronutrients designed to address and overcome specific micronutrient deficiencies in the plant.

- Kinetic Manganese is 100% plant available and crop safe
- Powered by Transit-S Technology and Biological Activators (BA)
- Kinetic Manganese improves fertilizer use by increasing the mobility and uptake of the nutrient in the plant
- CFIA Registered



Powered by TRANSIT-S and
CELLBURST Technology

Role of Manganese

- Regulates the splitting of the water molecules during photosynthesis
- Accelerates germination and early season seed development
- Activates several enzymes
- Increases the availability of P and Ca
- Aids in chlorophyll synthesis
- Heightens the concentration of valuable ingredients such as citric acid and vitamin C

Deficiency Symptoms

- Chlorosis on young foliage and Interveinal chlorosis developing in leaves
- Crops become yellowish to olive green, and foliage appears wilted
- Cereal crops show chlorotic and necrotic strips
- The plant exhibits dirty grey strips or spots on the base of the leaves (called Grey Speck)
- Acidification of soils with sulfur can correct manganese deficiency
- Limited mobility of Mn in the plant
- The entire water balance is affected

Mn Deficiency in Soybeans



Mn Deficiency in Wheat



Mn Deficiency in Canola



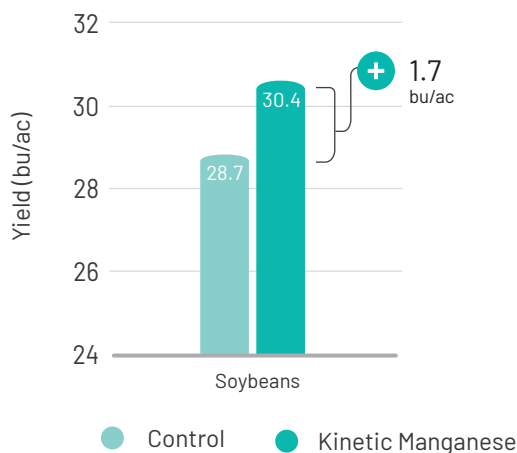
Proven Agronomic Performance

- Kinetic Manganese proved to have a direct positive effect on yield, as seen in the summary of 3 replicated field trials in 2014, reporting an average increase of 1.7 bu/ac in Soybeans.
- Summary data collected from 5 trials in 2012-2014 have demonstrated the benefits of supplemental essential nutrition.

The addition of Kinetic Manganese with glyphosate enhanced productivity by an average 3 bu/ac in Soybeans.

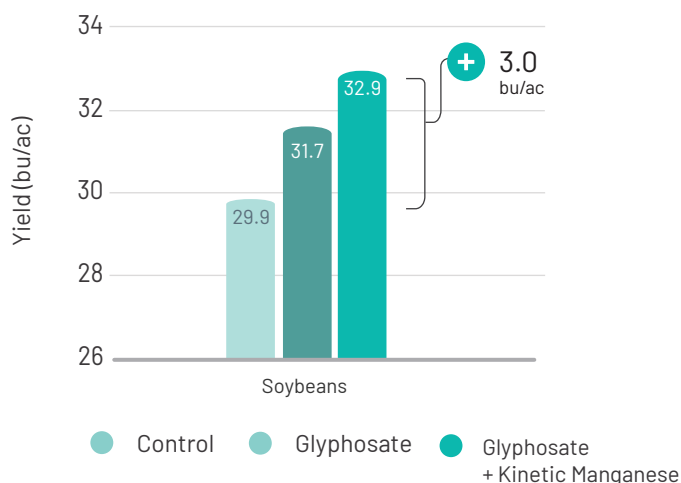
- To review the complete Kinetic Manganese data package, please contact your ATP Technical expert today.

Manganese in Soybeans



Summary of 3 replicated field trials, 2014.

Chemtrition Yield



Summary of 5 replicated field trials, 2012-2014.



The addition of Kinetic Manganese with Glyphosate enhanced productivity by an average of 3 bu/ac in Soybeans.

Product Recommendations

- Kinetic products can be applied throughout the growing season. For efficiency, Kinetic products can be added with the herbicide and/or fungicide application.
- Use proper water volume (minimum 10 gallons) to ensure uniform coverage and optimum uptake.
- Do not spray in the heat of the day or when plants are under moisture stress. Spray in the late evening or early morning.
- Tank mix compatibility is impacted by water quality which may vary by location, so conduct a jar test prior to combining Kinetic with a crop protection product or visit www.atpag.com for product compatibility information.
- To view the Kinetic Line's SDS and Product Labels please visit www.atpag.com

Product	Analysis	Rate (L/ac)	Timing	Forum
Kinetic Manganese	5.0Mn-3.0S + Transit-S + Cellburst	0.5-1.0	Foliar	Liquid



At ATP, we believe a proactive, science-based approach to restore the balance between plant and soil health is the single most effective way to deliver the genetic potential of the crop. We challenge the status quo by utilizing agtech to monitor and drive productivity.

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Learn More

