

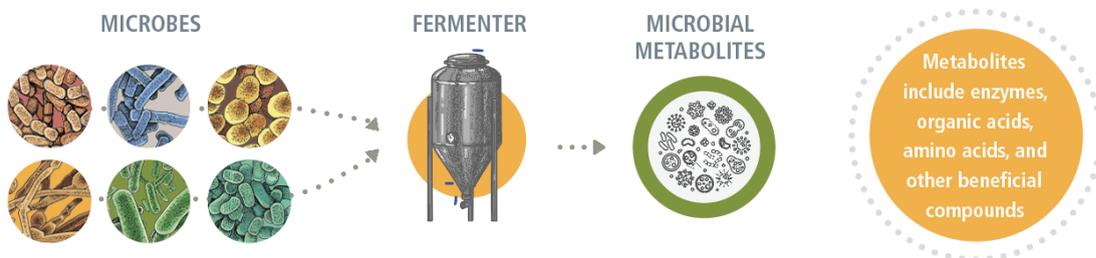
Microbial Technology for Sustainable Ag

Synergro M2 is derived from a consortium of microbes uniquely co-fermented to produce a rich array of metabolites to improve the signalling capabilities of plants and liberate soil nutrients.

Synergro M2 activates the root rhizosphere, delivering powerful metabolites to the area where the plant roots meet the soil.

- Increases rooting and vegetative plant growth
- Reduces impacts of abiotic and biotic stress
- Improves crop performance - drives yield and enhances quality
- Registered by CFIA
- Safe and stable when premixed with fertilizers

Our proprietary fermentation process converts microbes into beneficial metabolites.



Key Metabolites in Synergro M2

Through extensive research and analysis, we identified over 1,700 different metabolites produced by the Synergro consortium. We have consolidated these components into key groups that mimic the compounds a plant naturally produces and utilizes to optimize photosynthesis, plant health and yield.

Component	Function	Component	Function
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Organic Acid	<ul style="list-style-type: none"> ● Make phosphorus more soluble and improve mobility of nutrients such as manganese , copper, zinc, iron, calcium and magnesium ● Improve glomalin production, associated with a healthy rhizosphere 	Phenolic Acids	<ul style="list-style-type: none"> ● Attract beneficial bacteria associated with a healthy root rhizosphere ● Mediate plant stress responses ● Support lignin accumulation and salinity tolerance
Amino Acids	<ul style="list-style-type: none"> ● Improve complexing of key nutrients making them more available for uptake and utilization by the plant ● Improve antioxidant defenses of plants and 	Flavonoids	<ul style="list-style-type: none"> ● Facilitate colonization by N-fixing bacteria ● Influence pollen tube development ● Regulate plant stress responses

	<p>alleviate salt stress</p> <ul style="list-style-type: none"> • Improve flowering, seed set and development 		
Polyamines	<ul style="list-style-type: none"> • Reduce the impact of drought stress • Priming effects that provide stress-resistance 	Phosphatase Enzyme	<ul style="list-style-type: none"> • Releases phosphorus from organic matter making it plant available • Helps regulate osmotic processes in the plant • Improves root development

Proven Agronomic Performance

Agronomic trials demonstrate that Synergro M2 can be applied 3 different ways (seed, soil or foliar) to show an advantageous and consistent agronomic response.

SEED:

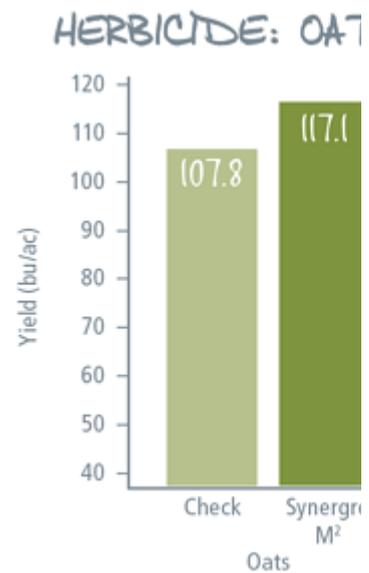
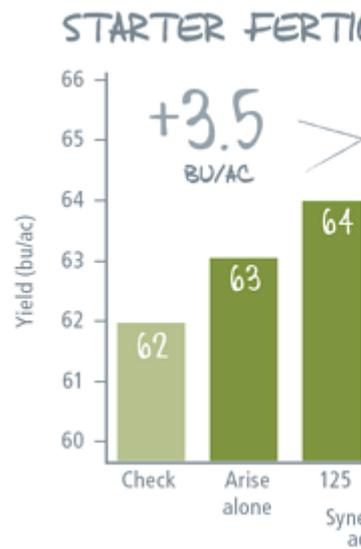
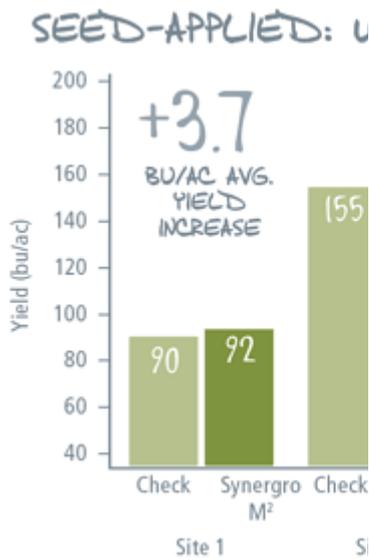
Winter wheat seed treated with Synergro M2 showed an average yield increase of 3.7 bu/ac for trials conducted in the Pacific Northwest.

SOIL:

Replicated trials from 2019 showed a strong rate response curve for both canola (below) and wheat crops when combined with a starter fertilizer at the recommended soil rate of 250 mL/ac.

Foliar:

Grower-replicated strip trials in Manitoba in 2019 on oats and wheat showed a consistent improvement in yield with Synergro M2 (125 mL/ac) at herbicide timing.



- Synergro M2 was seed-applied at 1 mL/Kg to wheat
- Trials were conducted at 3 PNW locations by a third party research company

- Small plot replicated trial conducted in Portage, MB in 2019.
- Arise (starter liquid Phosphorus) was applied at 3 gal/ac in furrow
- Synergro M2 was combined with Arise

- Synergro M2 applied at 125 ml/ac in a tank mix with NRG P (applied at 1 L/ac)
- Synergro M2 and NRG P applied with the existing herbicide application

Product Recommendations

- For a seed treatment, use Synergro M2 in combination with a nutrient dressing and a crop protection product.
- For soil applications, use Synergro M2 in combination with a starter fertilizer.
- For foliar applications, use Synergro M2 in combination with a nutrient(s).
- Synergro M2 is compatible with most fertilizers and commonly used pesticides. Conduct a jar test to determine product compatibility. Contact your ATP representative with any compatibility questions.

Rate	Timing
1 mL/Kg	Seed
250 mL/ac	Soil
125 mL/ac	Foliar

To view the Synergro M2 SDS and Product Labels see links below.

Resources

Synergro M²
Biological

Synergro M² - Microbial Technology for Sustainable Ag
Synergro M² is a consortium of microbes designed to produce a rich array of metabolites to improve the symbiotic capabilities of plants and liberate soil nutrients. Synergro M² activates the root rhizosphere, delivering powerful metabolites to the area where the plant roots meet the soil.

- Increases rooting and vegetative plant growth
- Reduces impact of abiotic and biotic stress
- Improves crop performance - stress yield and disease yield
- Regulated by CIA
- Safe and viable when presented with herbicides

Our proprietary fermentation process converts microbes into beneficial metabolites.

Key Metabolites in Synergro M²
Through extensive research and analysis, we identified over 1,000 different metabolites produced by the Synergro consortium. We have categorized these compounds into key groups that enable the consortium to naturally produce and deliver to optimize photosynthesis, plant health and yield.

Component	Function	Component	Function
Organic acids	<ul style="list-style-type: none"> • Make phosphorus more available and improve mobility of nutrients such as nitrogen, copper, zinc, calcium and magnesium • Support growth production associated with a healthy rhizosphere 	Phenolic acids	<ul style="list-style-type: none"> • Act as beneficial fungicides, associated with a healthy root rhizosphere • Reduce plant stress responses • Support lignin accumulation and carbon sequestration
Amino acids	<ul style="list-style-type: none"> • Improve assimilation of key nutrients making them more available for uptake and utilization by the plant • Support structural defense of plants and microbial cell walls • Increase flowering, seed set and development 	Flavonoids	<ul style="list-style-type: none"> • Facilitate colonization by B-fixing bacteria • Enhance pollen tube development • Regulate plant stress responses
Polysaccharides	<ul style="list-style-type: none"> • Reduce the impact of drought stress • Promote effects that provide disease resistance 	Phosphonates	<ul style="list-style-type: none"> • Activate phosphorus from organic matter making it plant available • Also reduce insecticidal pressure in the plant • Improve root development

Proven Agronomic Performance
Aggregated trials demonstrate that Synergro M² can be applied 2 different ways based, soil or foliar to show an advantage and consistent agronomic response.

SEEDS: Winter wheat treated with Synergro M² showed an average yield increase of 2.7 bushels for trials conducted in the Pacific Northwest.

SOIL: Applied trials from 2019 showed a strong site response across for both Canada (Boreal) and wheat trials when combined with a starter fertilizer at the recommended rate of 200 lbs/acre.

FOLIAGE: Greenhouse trials from 2019 in Manitoba in 2019 on wheat and other showed a consistent improvement in yield with Synergro M² (25% yield) at herbicide timing.

SEEDS - APPLIED TO WINTER WHEAT: Yield increase of +2.7 bushels/acre.

STARTER FERTILIZER: CANOLA: Yield increase of +3.5 bushels/acre.

HERBICIDES: OAT & WHEAT: Yield increase of +9 bushels/acre.

Product Recommendations

- For a seed treatment, use Synergro M² in combination with a fungicide and a crop protection product.
- For soil applications, use Synergro M² in combination with a starter fertilizer.
- For foliar applications, use Synergro M² in combination with a herbicide.
- Synergro M² is compatible with most herbicides and commonly used fungicides. Conduct a pre-test to determine product compatibility. Contact your ATP representative with any compatibility questions.

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Product Label

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Product SDS

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Learn more about Biological Biostimulants!

Join our ATP Academy and take our course on Biologicals to learn more about the benefits of microbes and their metabolites to plant and soil health.

Sign up to take a course now!

Want to learn more about Synergro M2 contact us today.

Email*

First name

Last name

Phone number

I am a...

Please Select Grower Retailer Independent Crop Consultant End User Distribution (Shippers, Packers, Processors) Association Groups/Researchers/Academics Other

Message

- I would like to subscribe to receive communications about ATP Nutrition's products events and offers.

Contact us:

To find out where you can purchase Synergro M2, contact us today or find your local rep.

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