

# KICKSTARTER PULSE™

## Complete Liquid Starter Fertilizer

POWERED BY **M-STRUCT™**

### Stronger roots from the start[er]

- KickStarter Pulse™ is a balanced blend of nutrients developed in the PNW to drive speed of stand establishment, root expansion, and increased nodule counts.
- Formulated with the power of M-Struct™ for improved phosphorus use efficiency and early season root development.
- Seed safe on sensitive crops, KickStarter Pulse is a low salt and chloride-free formulation that can be applied directly on the seed for use in-furrow.
- KickStarter Pulse delivers an early season boost in phosphorus, potassium, and micronutrients providing an optimal foundation for high yielding pulse crops.

## 250-300 lb/ac average yield increase

Data collected over 3 years through replicated small plot research trials conducted by The McGregor Company comparing treatments with KickStarter Pulse vs. no in-furrow treatment.

KickStarter Pulse

Untreated



Increased phosphorus uptake early leads to greener and more robust plants.

KickStarter Pulse

Untreated



Early season root development is significantly more advanced in plants with access to KickStarter Pulse.

START. FEED. FINISH



YIELD 3D™

Your pathway to optimal farm profitability



# FREQUENTLY ASKED QUESTIONS

## Is KickStarter Pulse a complicated mix that will impede my seeding process?

No. KickStarter Pulse is an all-in-one liquid starter fertilizer that is ready to use with any standard seeding equipment that has a liquid kit. 3-5 gal/ac use rates should be used for ideal in-field performance. Use rates of 5-10 gal/ac should be used for ideal in-field performance. KickStarter Pulse is seed safe and especially beneficial in crops with salt sensitivities.

## Why does soil pH matter to phosphorus?

In soil pH levels under 6.0, phosphorus gets tied up by aluminum and iron. In soil pH levels above 8.0, phosphorus ties up with calcium. With the power of M-Struct, KickStarter Pulse keeps phosphorus more plant-available.

## How does phosphorus impact my pulse crop?

Phosphorus, especially close to the seed and applied in combination with potassium, has been shown to increase early season root mass, nodule production, and shoot growth leading to significant effects on yield. Healthy roots build healthy stands and plants that can withstand later season heat and drought stresses. Addressing early season phosphorus and potassium demands can allow you to plant earlier in order to further capitalize on yield potential. Additionally, KickStarter Pulse contains molybdenum, which is the main component in nitrate reductase and essential for both nodulation and nitrogen mobility into the plant. Molybdenum is generally unavailable in acidic soils and should be supplemented below a pH of 6.

## Does KickStarter Pulse need added zinc?

No! KickStarter Pulse has an ideal P:Zn ratio for maximum efficiency.

## Does soil temperature matter when using KickStarter Pulse?

Planting pulse crops early is yield beneficial, however, phosphorus has been shown to be 5X less available in a soil temperature of 50° as compared to 75°. Using KickStarter Pulse improves root growth and helps the crop to overcome early season phosphorus deficiencies caused by cool soils and limited phosphorus availability.

Notes

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## Guaranteed Analysis

Total Nitrogen (N)	5%
Ammoniacal	4%
Urea	1%
Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	23%
Soluble Potash (K <sub>2</sub> O)	9%
Molybdenum (Mo)	.08%
Zinc (Zn)	.05%

*Derived from: Urea, Ammonium Phosphate, Ammonium Sulfate, Potassium Hydroxide, Phosphoric Acid, Sodium Molybdate, Zinc EDTA*

# Turn it **UP** a notch