

B4 Make Phosphorus Available

What is B4?

- B4 is a blend of 4 highly beneficial microorganisms: *Bacillus licheniformis*, *Bacillus amyloliquefaciens*, *Bacillus pumilus* and *Brevibacillus laterosporus*.
- B4 increases the availability of P, K, S, Ca, Fe, Zn that are in the root zone and unavailable to your crop.
- B4 comes in 3 formulations: B4 ST is seed applied and B4 LiF is liquid infurrow applied with liquid starter fertilizer. B4 LiF Organic is an OMRI registered formulation for liquid infurrow application.

Economic Benefits of B4

B4 on Corn + 7.7 bpa

5 years of replicated testing on ind
research farms
84% win rate
3.7% yield increase
+\$39.85 av net profit/acre

B4 on Soy + 4.2 bpa

5 years of replicated testing on ind
research farms
84% win rate
4.21% yield increase
+\$58.99 av net profit/acre

Operational Benefits of B4



- 1 oz per 100lbs of seed use rate
- Compatible with seed applied fungicides, insecticides, and inoculants
- On seed life of 200 days
- Convenient package size
 - 2x2.5 gallon case treats 640 cwt



- 1 pint (16oz) per acre use rate
- Compatible with liquid starter fertilizers and insecticides in preblends
- Can tank mix with liquid starter for 200 days
- Convenient package sizes
 - 2x2.5 gallon case treats 40 acres
 - 275 gallon shuttle treats 2200 acres
- B4 LiF Organic is a new OMRI registered formulation available in 2023.

Side by side, same hybrid, same starter fertilizer, planted same day

Liquid Starter



Liquid Starter + B4 LiF



Agronomic Benefits of B4

B4 solubilizes phosphorous (P), Potassium (K), Sulfur (S) zinc (Zn) and iron (Fe) that are in the soil and unavailable to your crop. These elements are made unavailable in the soil by other elements; iron, aluminum, calcium. It takes many years for P, K, S, Zn, Fe to naturally break down and become available to feed your crop. Depending on the pH of your soil, up to 50% of the P applied at planting is not available. P, next to nitrogen is the most limiting nutrient for crop production. Crops use P to store and transfer energy produced by photosynthesis as well as for growth and reproduction.

Many factors affect P availability to crops. In acidic soils, P is made unavailable by iron and aluminum, in alkaline soils P is made unavailable by calcium. This is what causes your P to not be used to your crop and build up in your soil.

B4 rapidly creates a biofilm on the root of your crop. This biofilm is what contacts the soil and solubilizes the nutrients that are in the soil touching your roots. Because B4 grows all season long, it is increasing the availability and uptake of nutrients throughout the growing season.

To increase the availability of P,K,S,Zn,Fe use **B4 from Dakota Bio.**



Dakota Bio

Dakota Bio is a privately owned company with employees that have a long history in biologicals and US farming. We understand the challenges and demands on farmers and crop production.



What we do

Dakota Bio uses advancements in biotechnology and beneficial microorganisms to create products that increase yields, crop nutritional value and farm income.



Born on Date

Dakota Bio is the first and only supplier in the industry to use a born on date on our biological products. The born on date guarantees that your product is made fresh. Fresh and healthy biologicals perform better in your field.



Ultra High Purity

Dakota Bio uses pharmaceutical and food grade fermentation for all of our biological products. This brings you the best products possible.



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