

MAXIMIZING PHOSPHORUS EFFICIENCY



GIVE YOUR CROPS THE ALPINE ADVANTAGE

- Supplies available nutrients to your growing crop
- Promotes quick, uniform emergence
- Seed safe at recommended rates
- Precision placement promotes nutrient efficiency
- Clean, easy handling solution
- Low application rates
- Will not corrode application equipment



the starter fertilizer company®

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GO WITH THE LEADER ALPINE

- ▶ Highest quality liquid starter fertilizers
- ▶ Quality, precision placement, seed safe
- ▶ Low impurities
- ▶ Low salt
- ▶ True solution N-P-K
- ▶ Orthophosphate (available phosphorus)
- ▶ Highly soluble

ALPINE liquid starters have a neutral pH and are low in both salt index and impurities. These features of our liquid starters enable the product to be placed directly with the seed at planting time. Placement with the seed allows the available phosphorus to be taken up at the critical early stages of growth to maximize yield potential.

ALPINE liquid starters contain 80% -100% of their phosphates in the available orthophosphate form.

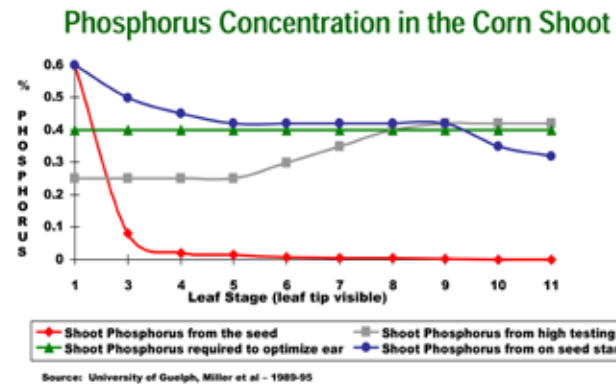
Orthophosphate is immediately available to the plant during the critical early stages of growth. Plants can only take up phosphorus in the orthophosphate form.

PHOSPHORUS IS CRITICAL FOR EARLY GROWTH

The availability of phosphorus is critical during early growth to get corn off to a quick and healthy start because phosphorus:

- Needs to be available by the V6 growth stage for maximum yield potential
- Is needed for strong root development
- Encourages early plant growth for longer grower seasons (drier corn at harvest)

The final grain yield is influenced by tissue phosphorus concentration prior to the V6 growth stage, regardless of the phosphorus supply at later stages!



ORTHOPHOSPHATE VERSUS POLYPHOSPHATE

What is orthophosphate and polyphosphate? Orthophosphate fertilizers are immediately available to your corn plants. Plants can only absorb phosphorus in this form.

Polyphosphate fertilizers have to break down to the orthophosphate form, and this conversion takes time. A slow conversion in cold, wet soils hampers nutrient uptake, which can negatively affect yields!

ALPINE liquid fertilizers are 80-100% orthophosphate and are specifically manufactured to be placed directly on the seed!

THE FIRST 15 POUNDS OF PHOSPHORUS NEEDS TO BE SEED PLACED!

DID YOU KNOW?

Phosphorus is replaced twice a day or 300 times throughout the growing season

- Seed placed phosphorus is the most efficient and economical solution for your fertilizer dollars—It is 40 times more concentrated than broadcast phosphorus!
- Phosphorus will move less than 1/10th of an inch in the soil
- Crop roots come into contact with approximately 2% of the soil area
- Soil tests only represent 1-2% of the total phosphorus in the soil

Dr. Wilcox of Purdue University reported that 5 lbs/A of phosphorus banded with the seed was equivalent to 20 lbs/A of phosphorus two inches under the seed.

Source: Solutions Magazine, Sept/Oct 1988

PRECISION PLACEMENT

- Seed-placed phosphorus is 40 times more efficient than broadcast placement!
- Seed-placed phosphorus is 4 times more efficient than 2" x 2" placement.
- 100 gallons of seed-placed starter will plant 20 acres of corn!

ON THE SEED

- Most efficient placement
- Phosphorus placed for maximum plant efficiency
- Roots are in immediate contact with fertilizer

2" X 2"

- Inefficient placement
- Roots are not in immediate contact with fertilizer

BROADCAST

- Not efficient



PHOSPHORUS EFFICIENCY

PLACEMENT	POUNDS of P ₂ O ₅
Seed Placed	10 pounds
2" x 2"	40 pounds
Broadcast	400 pounds

TALK TO YOUR LOCAL ALPINE REPRESENTATIVE
FOR SPECIFIC RECOMMENDATIONS

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