

Growing AGRONOMY

Growing Knowledge, Growing Skills, Growing Yields



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FOLIAR FERTILIZERS



Importance of Foliar Fertilizers

Foliar fertilizers can provide immediate nutrients to the crop during the growing season to overcome or prevent deficiencies and increase yield.

The Difference between Soil Applied and Foliar Fertilizers

Foliar fertilizer are used in much smaller amounts per acre and applied with a sprayer, typically with a pesticide. Foliar fertilizers are a supplement to soil applied fertilizer, not a replacement

When Should Foliar Fertilizers be applied?

Foliar fertilizers are typically applied with a herbicide application earlier in the growing season and with fungicide later in the season. Applying foliar fertilizers with other foliar chemicals will minimize the application cost.

Foliar Fertilizers

What is a Foliar Fertilizer

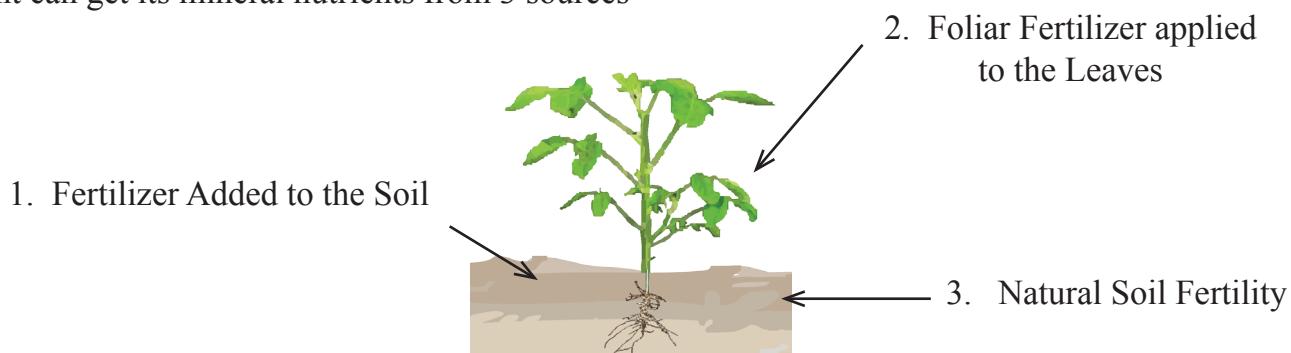
The application of foliar sprays of one or more mineral nutrients to plants to supplement traditional soil applications of plant-essential nutrients.

Environmental Factors Effecting Foliar Fertilizers

Early morning and evening applications are typically the most effective. Nutrient adsorption into the leaf is enhanced when air temperatures are less than 85°F and high humidity. Applications made to young, actively growing tissue and buds are generally most effective.

How a Plant can receive Mineral Nutrients

A plant can get its mineral nutrients from 3 sources

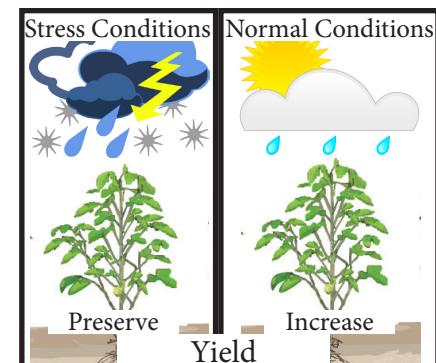


Foliar fertilizer application results in rapid nutrient absorption and utilization to correct deficiencies or prevent nutrient shortages during critical growth stages.

Foliar Fertilizers can Positively Influence Growth and Yield

Foliar fertilizers enable the crop to resume growth following external stress from hail, frost, heat, wind, mechanical damage, disease and anaerobic conditions.

Foliar fertilizers increase crop performance under normal or favorable conditions to increase yields.



Advantages of Foliar Fertilizers

Foliar Fertilizers have several benefits, such as:

- Supplying nutrients during peak periods of demand when an immediate response is needed
- Providing plants with certain nutrients that may not be readily available for root uptake
- Allowing flexibility in supplying nutrients related to improving grain quality
- Minimizing nutrient losses in conditions with high potential loss
- Providing a nutrient source during periods of stress when soil applications are not practical
- Giving a nutritional boost to plants at the same time that other foliar pesticides are being applied, thereby minimizing application expenses

The 4R Principal

Regardless of the fertilizer being applied the 4R Principal should always be considered to **improve agricultural productivity and minimize environmental impact.**

Right Source- There are a wide variety of foliar fertilizers available. For the right source consider pH, chelated/complexed nutrients and nutrient form; not all fertilizers can be absorbed by the leaf. Also ensure foliar fertilizers are compatible with other foliar pesticides being applied.

Right Rate- Foliar fertilizers are used at a much lower rate than soil applied fertilizer and can be 8 to 10 times more effective as amount of nutrients required and speed they are utilized. Foliar fertilizer rates should consider nutrient concentration of the fertilizer to ensure adequate pounds of nutrient to the crop per acre.

Right Time- Foliar fertilizers will typically be applied with post-emergence herbicides (In corn for example early V stages) or later with a fungicide (VT-R1) in corn.

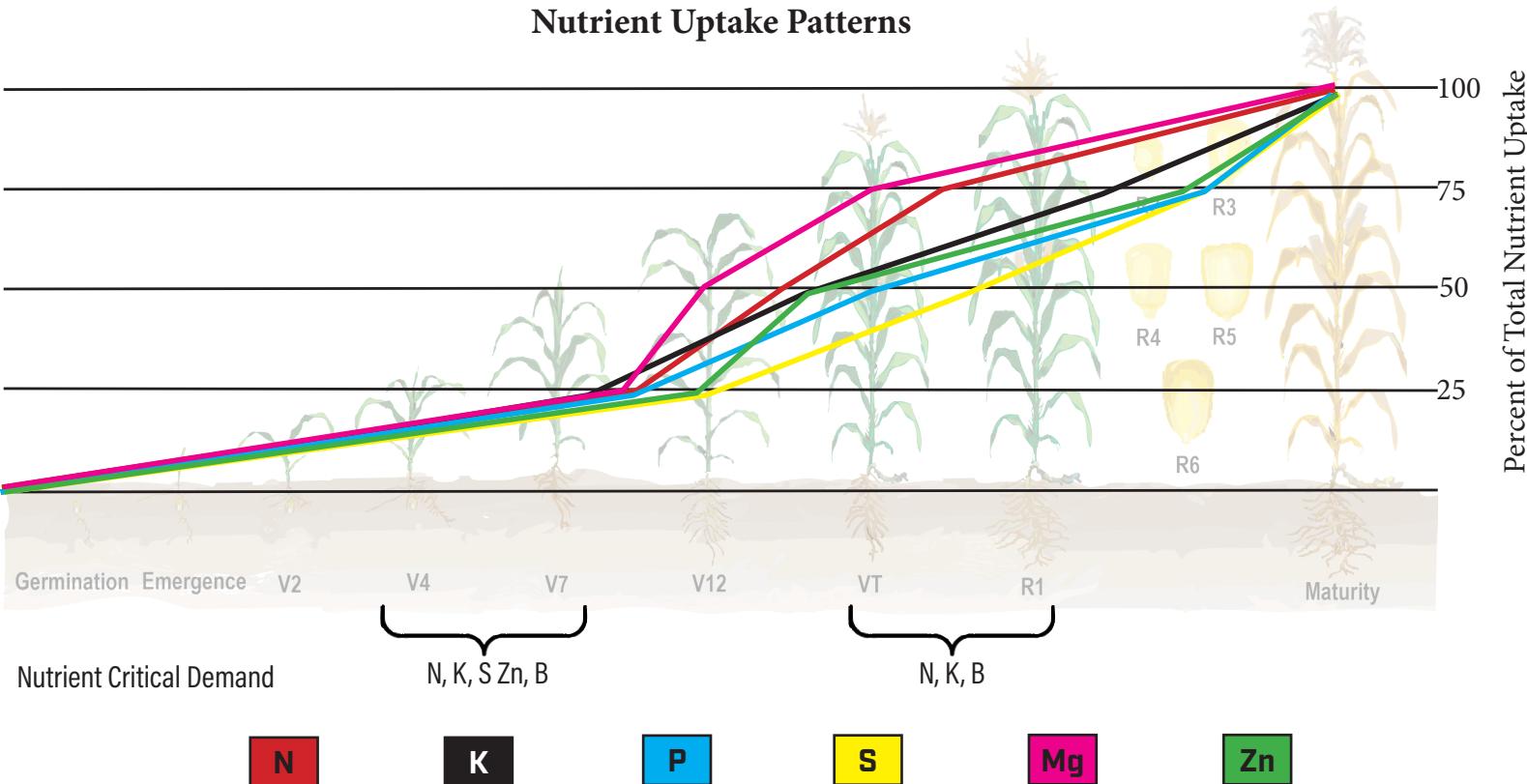
Right Place- For foliar fertilizers to be the most effective they need to make contact and stay on the crop leaf, allowing the nutrients to be absorbed.

Following the 4R Principles can result in the difference of deficient crops and record yielding crops! To learn more about the 4R Principal please visit: www.nutrientstewardship.com

Nutrient Uptake

By understanding nutrient uptake patterns of the crop you can maximize the impact of the foliar fertilizer by supplying nutrients when the crops need them most.

Nutrient Uptake Patterns





ROSEN'S INC.
Quality Agricultural Products



- 6 key nutrients, includes 1% Potassium
- Nutrients protected without EDTA allowing them to be more available to the plant
- Designed with a blend of nutrients for use on a wide range of agronomic crops
- Apply before or after deficiency symptoms appear

Use Rate: 1-2 quart/A



- 5 key nutrients
- Nutrients protected without EDTA allowing them to be more available to the plant
- Formulated for optimal corn production
- Apply before or after deficiency symptoms appear

Use Rate: 1-2 quart/A



- 5 key nutrients
- Nutrients protected without EDTA allowing them to be more available to the plant
- Formulated for optimal soybean production
- Apply before or after deficiency symptoms appear

Use Rate: 1-2 quart/A



- Releases nitrogen at a gradual controlled rate maximizing absorption
- Remains in the liquid phase on the leaf surface longer than UAN
- Is 2.5x more effective than UAN at translocation from treated areas

Use Rate: 1-4 gallons/A



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