



FOLIAR FEEDING

By following these guidelines, professionals can effectively utilize foliar feeding techniques to optimize plant health and productivity.

BENEFITS OF FOLIAR FEEDING

1. Enhances Photosynthetic Potential & Sugar Production

Key nutrients that boost photosynthetic potential are not easily absorbed by plants through their roots. Through foliar feeding, nutrients are applied to the leaves, and are able to be uptaken for photosynthetic potential. Additionally, foliar feeding provides essential nutrients that are needed to enhance sugar production, which improves the overall plant vitality.

2. Improving Plant Health Through Balanced Nutrition

Applying targeted foliar mixes has been scientifically proven to enhance the overall nutrient balance in plants.

3. Increases Total Nutrient Density

A higher nutrient density results in healthier plants, with improved vigor and resilience.

4. Promotes Healthy Soil

Healthy plants contribute to the creation of healthy soil, emphasizing the importance of optimal plant nutrition.

HOW NUTRIENTS ARE ABSORBED THROUGH THE LEAVES

Stomates are the microscopic openings on leaves that help regulate nutrient uptake. They are most receptive during the morning and evening hours, with larger openings than compared to mid-day. When adequate levels of Zinc and Potassium are present, this generates activity of the stomates.

When you foliar apply nutrients, approximately 60% of the nutrients are absorbed by the plant within 25 minutes, while the remaining nutrients continue to be absorbed over 48 hours.

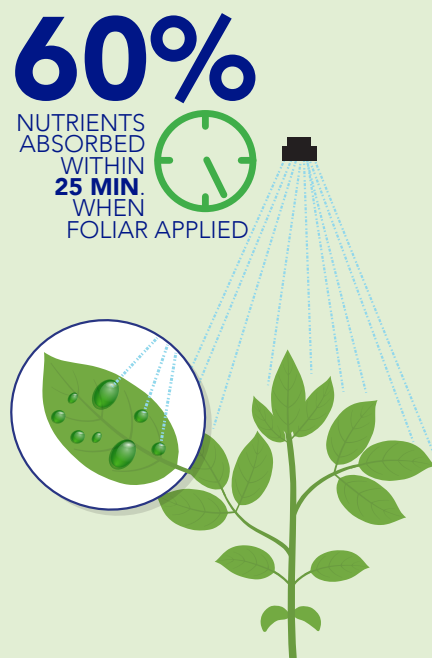
WHAT IS THE BEST TIME FOR FOLIAR FEEDING?

Beat the heat! Avoid spraying during peak daytime heat. The best time for foliar feeding is either in the early morning, or late evening as this is when the stomates are most active.



Do not apply foliar products when temperatures exceed 83°F or when the leaf surface temperatures exceed 78°F.

Humidity is a good thing! Humidity levels exceeding 60% are crucial for the full effectiveness of foliar blends.



EDTA CHELATION - WHAT IS IT?

EDTA Chelation involves the use of ethylenediaminetetraacetic acid.

When using EDTA Chelation, some challenges may arise. Including:

- particle size
- leaf surface interaction
- pH and stability issues
- inefficient plant nutrient transportation within the plant

WATER QUALITY TIPS TO CONSIDER

pH/Bicarbonates

- High bicarbonate levels can bind nutrients in the tank mix, which reduces their availability.
- High phosphorus content acts as a buffer, limiting the effectiveness of acidifiers in adjusting pH.
- The optimal pH range for nutrients varies depending on the specific blend, but can typically be found between 5.2 and 6.2.
- The optimal pH range for biology is typically between 5.8 and 6.5.

Total Hardness

- Total hardness levels should be under 70 ppm, or 5 grains to prevent tie-up of nutrients.

Chlorine/Chloride

- High chlorine levels can be detrimental to beneficial microorganisms.
- Over 10 ppm of chlorine can harm biological activity.

Electrical Conductivity (EC)

- Monitoring and controlling EC is crucial, especially when applying multiple foliar applications within a 10-day interval.

RECOMMENDED PRODUCTS - WHAT SHOULD I USE?

Acidifiers

- Acidifiers, such as sulfuric acid or citric acid, are used to adjust pH and remove bicarbonates.

Sequestering Agents

- These agents bind with minerals like calcium and magnesium to reduce water hardness.

Biology-Friendly Products

- Products like ascorbic acid (Vitamin C) help bind with chlorine and chloride, supporting the survival of beneficial microorganisms.

TANK MIXING SEQUENCE

1. Start with clean or treated water
 - Approximately 80% of the tank solution should consist of water.
2. Add Pesticides/Fungicides
 - Dilute the solution as much as possible before adding microbes or bio stimulants.
3. Include Plant Nutrients
4. Incorporate Plant Biostimulants
5. Introduce Microbial Biostimulants
6. Add Microbial Inoculants
7. Include Spreader/Sticker/Surfactants

***Note that some products may interact differently when mixed in concentrated forms.