

PureGrade Liquid Plant Food

PureGrade™ Foliar Plant Food Boosts Crop Potential

The convenience of mixing **PureGrade** Foliar Plant Food with Roundup® and other chemicals has created a lot of interest in foliar feeding, especially on soybeans. More growers are realizing that ‘piggybacking’ foliar plant food with spray-applied chemicals is more efficient and more profitable. Here are some common questions asked about foliar-applied plant food:

The Agronomics of Foliar Feeding

Q: How does foliar feeding work? I thought plants only absorbed nutrients through the roots.

A: Roots take up the bulk of the nutrients, but small amounts of nutrients can enter through the leaves and stems. This was proven at Michigan State University through the use of radioisotopes nearly 50 years ago. The efficiency of uptake through the leaf is high compared to the root, but the actual quantity taken in is small in comparison.

Q: How does foliar feeding help increase yields?

A: When foliar plant food is sprayed on the leaves it causes the plant’s metabolism to speed up. This causes the plant to “demand” more water and nutrients from the root system. It is this increase in water and nutrients sent by the roots that provides the potential for higher yield. Often the increase in yield removes more nutrients than were contained in the foliar application. The yield increase comes from soil-supplied nutrients, but it’s the foliar plant food that causes it to happen.

Q: Do soil test levels make a difference?

A: Yes. Results from foliar plant food are better when soil test levels are in the medium or high range. An ample supply of soil nutrients is necessary to get the maximum return. Foliar-applied nutrients do not substitute for soil-applied nutrients.

Q: Does foliar-applied plant food cost a lot?

A: No. At a minimal soybean application rate, it will take a yield increase of only about one bushel per acre to pay for the fertilizer.

Q: What crops respond to foliar feeding?

A: Most crops respond positively to foliar plant food under the right conditions. Most growers in the corn belt concentrate their efforts on soybeans and alfalfa. Fruit and vegetable crops, including edible beans, respond well to foliar plant food.

Q: Will foliar fertilizer control any plant diseases?

A: Yes. University data indicates that foliar-applied potassium phosphate can help control powdery mildew in certain crops. Potassium phosphate is the key component in Nutra-Flo PureGrade products.

Foliar Application

Q: Does foliar feeding require an extra trip?

A: No. In most applications foliar plant food replaces part of the water carrier in the chemical spray solution.

Q: How much should I use on soybeans?

A: Recommendations vary, but most will be in the range of 2 to 4 gallons per acre.

Q: Can I dump everything into the spray tank and go?

A: Nutra-Flo recommends a compatibility test (jar test). Generally, PureGrade products are compatible with the majority of spray materials. Compatibility agents are available that are specially designed for use with phosphate fertilizers like PureGrade. Use them when needed.

PureGrade Products

Q: What type of plant food should I use for foliar feeding?



A: Using a plant food that has a low salt index will minimize leaf burn. All PureGrade Foliar Plant Food products have a low salt index and are safe for most foliar applications.

Q: Can PureGrade products be mixed with Roundup® on Roundup Ready® soybeans?

A: Yes. Monsanto recommends that NPK fertilizers being mixed with Roundup® should contain at least 10% P₂O₅ and 8% K₂O and they should contain no more than 0.01% aluminum, calcium, chloride, iron, magnesium, manganese and zinc combined. Nutra-Flo PureGrade Diamond products meet these requirements.

Q: How can I get more information?

A: Call us at Nutra-Flo. We’ll connect you with one of our experienced agronomists or salesmen. Ask for our Technology That Grows™ bulletin series. It has complete, detailed instructions on how to use PureGrade fertilizers on nearly any crop, including starter, sidedress and foliar applications.