FOLIAR FEEDING: An important strategy for productive crop management

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Introlab
outperform the norm

Foliar feeding is an effective method of providing essential nutrients to plants when soil nutrient availability is limited. It is the method by which a nutrient solution is applied to the leaves of a plant, where the nutrients are absorbed and translocated within the plant to parts where required. When used correctly, foliar feeding is more environmentally friendly, target specific and more effective than soil fertilisation since nutrients can be directly delivered to the plant tissue during critical stages of plant growth.

Soil applied nutrients might become unavailable to plants due to leaching, antagonism between certain nutrients, fixation of nutrients, soil nutrient imbalances, or soil chemical properties like high or low soil pH conditions. The available nutrients provided by foliar feeding are more effectively utilised by plants, because foliar absorption is a physical and chemical process and not a biological process, as is the case with granular fertilisers. The purpose of foliar feeding is not to replace soil fertilisation, but to supplement any shortages and increase its effectiveness.

Bolstering plant growth

Foliar feeding has proven to be the most effective way of supplying plant requirements of secondary nutrients (calcium, magnesium and sulphur) and trace elements (boron, cobalt, copper, iron, manganese, molybdenum and zinc), while supplementing macro-nutrient (nitrogen, phosphorous and potassium) requirements during critical growth stages.

The primary function of foliar feeding is to delay the natural leaf senescence process, and to increase photosynthesis and chlorophyll production in the leaves. Foliar feeding targets the growth stages where the photosynthesis rate is declining, and where root growth and nutrient absorption are levelling off.

It can also be an effective influence in the early growth stages by stimulating vigorous vegetative growth or regrowth, and by maximising the yield potential by compensating for environmental stresses and poor nutrient availability during this growth period.

Key advantages of foliar feeding include:

- A highly effective method to supply essential nutrients at critical growth stages.
- Compensating for soil or environmentally induced nutrient deficiencies.
- Foliar absorbed nutrients are immediately available to the plant.
- More control with less risk.
- Easy adjustment of the crop nutrition programme during the growing season.

The primary objective of foliar feeding is for maximum absorption and translocation of nutrients. Foliar applied formulations should meet certain standards to be effective and minimise possible damages. Factors affecting the bioavailability of nutrients include:

- High solubility.
- High purity.
- Low salt index.
- Small particle size and molecular weight.

Introducing Introlab

Introlab manufactures a wide range of world-class foliar fertilisers that include aminogluconate chelated nutrients, suspension concentrate nutrients, water soluble nutrients and crop stage specific gel nutrients.

Introlab's foliar fertilisers are specifically formulated to effectively supply nutrients to the plant at critical growth stages by utilising different formulation types for specific objectives. Introlab's different formulation types enable the grower to create a complete and tailor-made nutrition programme for each crop type, ensuring constant nutrient supply and preventing nutrient deficiencies during the growing season.

The **Intro Range** is an aminogluconate chelated foliar feeding range comprising single and multiple nutrient formulations. The **Intro Range** is a deficiency corrector and preventor as the chelated nutrients are quickly absorbed and translocated within the plant. Glycine, one of the smallest amino acids, is used to chelate the nutrients in the **Intro Range** formulations. The chelated nutrients improve absorption tempo and translocation within the plant, increase compatibility with other agrochemicals, and decrease toxicity.

The **Opty Range** consists of highly concentrated and micronised nutrients in a suspension concentrate formulation. The small particle size, <4 micron, allows for effective absorption and continuous longer lasting nutrient supply. It is recommended for use as maintenance foliar fertilisers, ensuring nutrient supply levels are maintained during growing seasons. The **Opty Range** is safe on sensitive crops due to a low salt index.

The **IntroSol Range** is a balanced, all-in-one, water-soluble fertiliser range that can be used to supplement macro-, secondary and micro-nutrients at specific crop growth stages.

The **IntroCel Range** is a new generation water-soluble gel fertiliser range that combines the benefits and advantages of water-soluble crystalline and liquid fertilisers into a single gel formulation. The **IntroCel Range** contains the correct ratios of macro-, secondary and micro-nutrients for each crop growth stage.

Contact us on 021 864 2145/6 for more information or assistance on an innovative, tailor-made foliar feeding solution that will outperform the norm and unlock the full genetic potential of your crop.