Technical Information Sheet

Role of nutrients in Strawberry production

NITROGEN (N) – an essential nutrient for growth however with most varieties the biggest problem with nitrogen involves excessive levels as opposed to deficiencies. High nitrogen levels during fruiting often result in soft fruit and reduced quality. Ammonium forms (not urea) provide slower release while nitrate forms (eg. calcium or potassium nitrate) are immediately available. VLP (10-2-7) foliar spray provides an excellent balance of nitrogen and essential nutrients to promote early growth and maintain plant health.

PHOSPHOROUS (P) – important for root growth, early development, flowering and fruit quality. Lock-up of P in the soil can produce slow early growth and poor flowering, and also delayed fruit ripening. Foliar application of LIG-POLYPHOS complex is the most effective way to correct this problem quickly. MAP, CR MAPS/CR MKP also supply available in-season P via fertigation. Applying 25 kg P/ha pre-planting should supply maintenance requirements for one year. Apply a minimum of 50 kg P/ha on deficient soils.

POTASSIUM (K) – potassium is required for sugar production, berry filling and can also reduce the detrimental effects of environmental stresses such as frost/cold or low moisture. Typically potassium nitrate is applied at 1-1.5g/plant or CR K-SUL @ 10 L/ha every 10-14 days. If magnesium has been applied pre-planting (eg. dolomite) this may reduce potassium uptake.

CALCIUM (Ca) – calcium (as well as boron) is the most important nutrient for strawberry quality but is also the most difficult to supply in plant available form. Usually a combination of frequent soil application (calcium nitrate, Calcium + Boron PLEX) and foliar sprays (LIG-CALCIUM + B) are required to maintain fruit calcium levels and reduce berry rot and breakdown.

MAGNESIUM (Mg) – essential for photosynthesis, optimum growth bush growth & fruit colour/sizing. Can be supplied as dolomite pre-planting or magnesium sulphate (fertigation) & foliar sprays (eg. LIG-MAGNESIUM) in-season. High levels of soil potassium and ammonium will reduce magnesium uptake.

BORON (B) – a most important trace element required for flowering, calcium uptake and general fruit quality. Generally applied as foliar sprays (eg. LIG-CALCIUM + B/LIG-K + BORON) during the season and can also be applied via fertigation though care must be taken to avoid the risk of boron toxicity. Foliar application is a very safe option and can also directly target flowers and developing fruit.

ZINC (Zn) – zinc deficiency is common on a wide variety of soil types and inhibits early development, bush growth and fruit set. While zinc can be added to base fertilizers, foliar sprays such as LIG-ZINC + BORON or LIG-TRACE are the most effective and efficient way to correct deficiencies.

COPPER (Cu) – low copper levels reduce plant strength and disease tolerance. Deficiencies are most likely on sandy soils or those high in organic matter. High nitrate application can also induce copper deficiency.

IRON (Fe) – deficiencies usually associated with alkaline soils or waterlogging. Essential nutrient for photosynthesis and vegetative growth.

MANGANESE (Mn) – deficiencies are common on limed sandy soils and alkaline clays with high organic matter content. Manganese is important for photosynthesis and disease resistance.

MOLYBDENUM (Mo) – plays an important role is plant nitrogen utilization and can reduce the harmful effects of high plant nitrate levels on fruit quality. Deficiencies are most common in acid soils but can be easily corrected with foliar sprays such as LIG-MOLY.

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