



CONCEPT

AGRILIBRIUM CONCEPT AND APPROACH

Restoring and maintaining soil productivity is achieved through the logical and balanced use of organic and inorganic (chemical) plant nutrients in conjunction with organic carbon containing nutrient chelators and soil conditioners like Fulvic acid (also known as carbonic acids or organic acids), amino acids, kelp and the biological portion in the form of micro-organisms, thereby Transforming Chemistry into Biology. This results in fertile soil with a balanced and healthy soil structure and chemistry as well as biological soil life. By applying nature's logic, the utilization of plant nutrients is optimized to increase yield (harvest) and to ensure better quality of farm produce.

Fulvic Acid - Ion Management

PhytoFulvic acid is a very important renewable source and component of Agrilibrum's product range. The ability of PhytoFulvic acid to bind with nutrients and herbicides (neutralize charges) makes it an effective chelating agent and carrier of charged ions. These Fulvic acid neutralized nutrient complexes are easily absorbed by roots, stems and leaves and due to the improved mobility of these complexes, they are easily transported in the plant.

Amino Acid - Ion Management

Amino acids are organic molecules that can be easily absorbed by a plant. It can basically be classified as a specific group of fulvic acids due to having the same properties as ordinary Fulvic acid and commonly occurs in all living cells and tissue.

Kelp - Root Growth Stimulation

Kelp has plant growth stimulant properties (cell division in plants, which results in root and shoot growth and overall improvement in plant health) due to the extracted cell content of natural sea harvested Kelp (auxins and cytokinins) which are a natural source of plant hormones. Ecklonia maxima, or sea bamboo, is a species of kelp native to the southern oceans. It typically occurs along the southern Atlantic coast of Africa, from southern South Africa to northern Namibia.

Micro-organisms - Ion Management & Root Growth Stimulation

Selected bacterial strains in QCM360 provide for natural rhizosphere production of plant growth promoting hormones to stimulate root growth as well as enzymes like phosphatase and urease that substantially improves nutrient and soil moisture use efficiency.

Phytoalexins - Natural Pest & Disease Tolerance

Biochemical pre-cursors of phytoalexin formation in plant tissue, like Salicylic acid, to induce systemic acquired resistance against pest and pathogen attack are formulated in products like BioKelp and Multifol.

Anti-oxidants - Stress & Energy Management

Internationally peer reviewed and published research on the anti-oxidant mechanism and its role in protecting organelles like the chloroplast and mitochondria during stress situations (Malan et al, Plant Science 69:157 – 166, 1990) provides for in-house expertise and knowledge on what is needed and how to formulate products that contains the active ingredients needed by plants to sustain and support an effective Plant Stress Management anti-oxidant system.

THE AGRILIBRIUM CONCEPT ADDRESSES THE FOLLOWING:

- Repair and limit damage to soil organisms caused by years of sub-optimal agricultural practices. For this, products such as QCM360, OrganoZip, LiquiCompost and SeedSpeed have been developed that contain high Fulvic acid.
- Solubilize bound soil nutrients into the soil solution and therefore render it plant available. Products such as DynoSulf and AminoBoost are formulated for this.
- Supplement inherent deficiencies caused by low availability / insolubility in the soil through effective foliar sprays.
- Increase growth and yield in annual and perennial crops by managing specifically Plant Stress with our range of foliar applied root stimulation products such as BioKelp, BioPhos MultiFol, OptiGrove, MultiPly, DynoCMZ and DynoMoB.