

NATURAL SOIL ACTIVATORS - ORGANIC FERTILIZERS



derived from natural Leonardite deposits rich in organic matter and nutrients

NPK 0 - 0 - 15

97% humic & fulvic acids



Organic certified



NPK 7 - 0 - 3

18% humic & fulvic acids

NPK 0 - 0 - 5

26% humic & fulvic acids

HUMOFERT

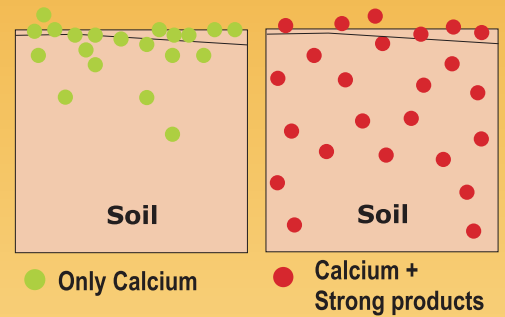


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Benefits from the application of humic and fulvic acids

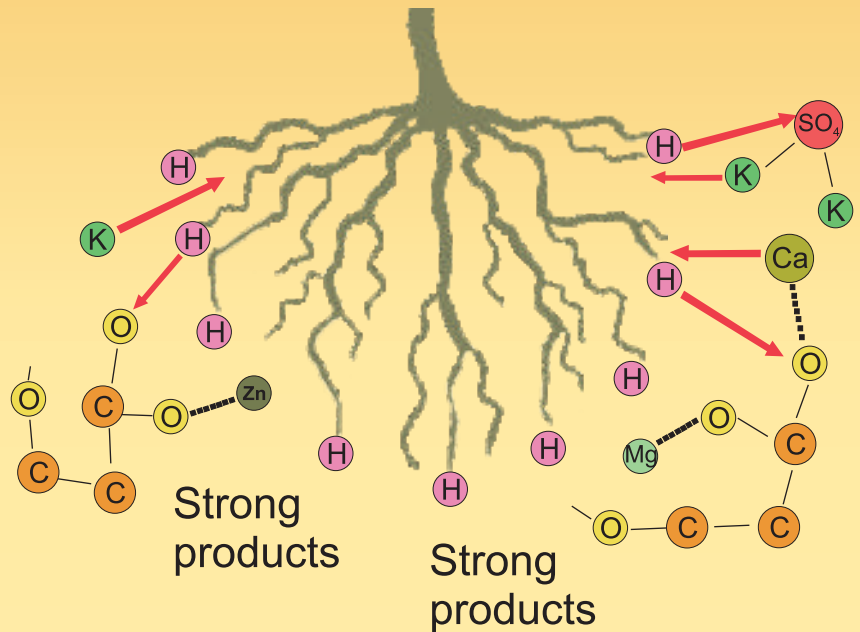
Calcium transport

Humic acids contribute to the transport of calcium in the soil. **Strong** products have a large amount of humic acids and that is why they assist in the increase of the penetration and retention of calcium in the subsoil and the root area where it is most needed. Trials in soil which had received a lot of calcium showed that **Strong** products increased calcium mobility near the roots. Calcium penetration in the treated with **Strong** products soils was higher compared to the control. This means higher and quicker efficiency of the applied calcium. Plants require calcium for the cell division and the creation of stronger cell wall structures of the plants. Calcium is required in large amounts from the plants but is not readily available for uptake when they need it. Furthermore, when calcium enters plants it cannot be moved easily inside of them. So it is really important to ensure a constant and sufficient source of calcium for the plants easily accessible by the roots and quickly available to the whole plant. We can achieve this with the family of the natural soil activators **Strong**.



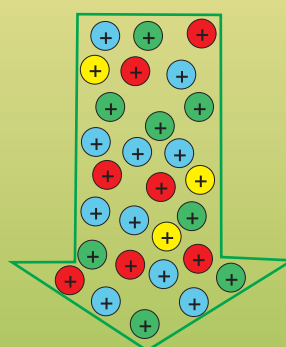
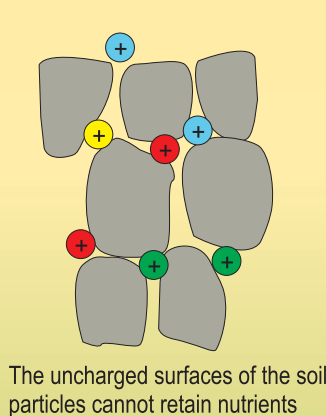
Reduction of the soil acidity

The use of inorganic fertilizers such as superphosphates result in chemical reactions which increase the soil acidity and reduce the function of the roots. **Strong** products assist in the reduction of acidity because of the presence of organic matter, including humic acids which limits the number of the chemical reactions that take place in the soil. Chemical reactions become more gentle and so the plant does not suffer from stress due to the soil acidity.

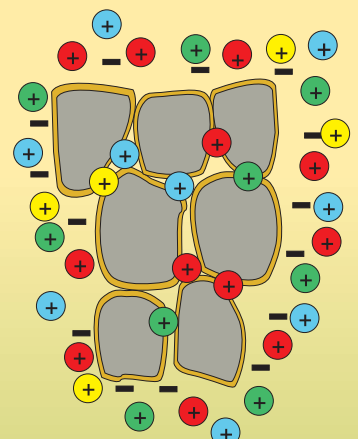


Increase of the Cation Exchange Capacity

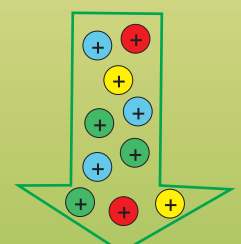
A soil in order to be fertile it has to be rich in organic matter. Organic matter provides most of the soils the ability to hold the mineral nutrients and make them available to the plants. Humates which are the main components of the organic matter, convert the uncharged soil particles in negatively charged surfaces. These negatively charged surfaces retain most of the nutrients of the applied fertilizers that have positive charge (cations). Furthermore, humates hold water in the upper surfaces of the soil. **Strong** products are very rich in humic acids and that is why they improve the capacity of the soil to retain water and nutrients. As a result sandy soils become more fertile since nutrients such as nitrogen, potassium, calcium, magnesium and most trace elements do not leach. Consequently, there is increased availability of nutrients in the soil, greater uptake by the plants, reduced fertilizer wastage and finally reduced costs for fertilization.



Large amounts of nutrients are not held in the soil and they are lost due to leaching



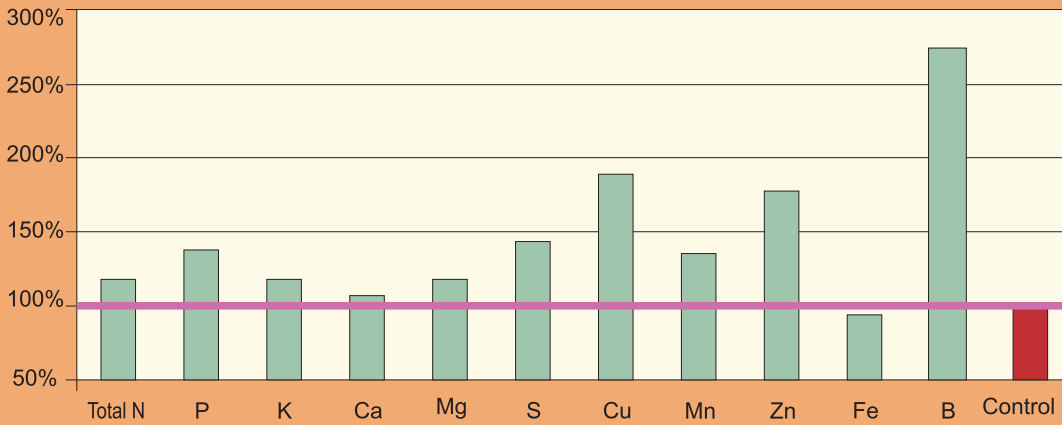
The coating of the soil particles with humates provides charged surfaces which hold nutrients



More nutrients are held in the soil and are not lost due to leaching

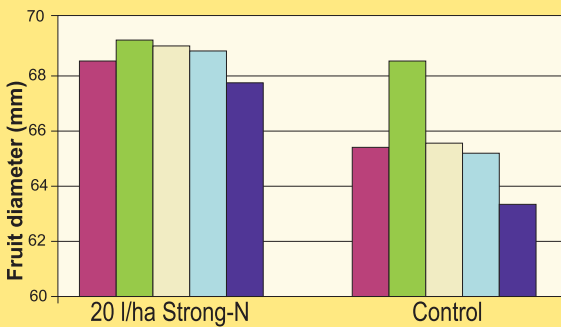
EXPERIMENTAL RESULTS

Nutrient content in tomatoes after the application of Strong-26

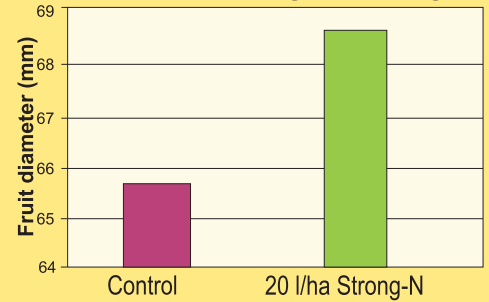


Results from an experiment on tomatoes. The application of **Strong-26** at an application rate 20 l/ha increased significantly the nutrient uptake.

Average size of fruits in 5 plots

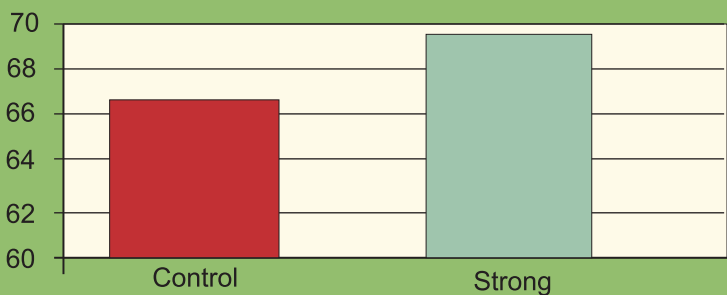


Average fruit size at the cell enlargement stage



Results of an experiment in citrus. The application of **Strong-N** at an application rate 20 l/ha increased fruit size in all plots.

Total yield (tn/ha) in treated with Strong potatoes



Results from an experiment in potatoes. The application of **Strong** at a rate 5 kg/ha increased the potato yield by 4.5%.

CROP	FOLIAR APPLICATION	SOIL APPLICATION
TOMATOES	1st: At 6 leaf stage, 2nd: At the initiation of flowering	Seed dipping overnight. Apply through irrigation every 4 weeks
CUCURBITS	1st: At 6 leaf stage, 2nd: Prior to flowering, 3rd: When fruits are 6 cm long	Apply through irrigation or with boom spray before planting. Apply with every nitrogen application
ROOT CROPS	1st: At 6 leaf stage, 2nd: 3 weeks later, 3rd: 3 weeks later	Apply through irrigation 1 week before planting and then every 3 weeks until harvest
POTATOES	3 weeks after planting	Apply through irrigation 1 week right after planting and then every month until harvest
STRAWBERRIES	Apply at 10 day intervals until the first major pick then each time before buds start forming for flower flushes	Apply through irrigation every 3 weeks
APPLES	1st: Right after flowering, 2nd: 2 weeks later 3rd: 2 weeks later, 4th: 2 weeks later	In spring through irrigation
CITRUS	1st: Pre-flowering, 2nd: At full bloom 3rd: At petal fall, 4th: Monthly till harvest	In spring and/or autumn through irrigation
STONE FRUITS	1st: At bud burst, 2nd: At petal fall, 3rd: 5 weeks later	In early spring at bud burst through irrigation
GRAPES	1st: At new growth, 2nd: At fruit set, 3rd: 1 month later	Through irrigation pre shooting and monthly until harvest. Co-ordinate with nitrogen application
BANANAS	In monthly intervals in conjunction with fungicides if suitable	Apply through irrigation in December and January and then April - May
CEREALS	1st: At 6 leaf stage, 2nd: At the initiation of tasseling (corn), 3rd: At the initiation of silking	During tillering and at ear emergence
COTTON	1st: At 15 cm of new growth, 2nd: Prior to flowering	At seed planting
ALFALFA / OTHER FODDERS	Spray after each cutting or at 15 cm of new growth, usually 4-5 days after watering	At spring and/or autumn through irrigation
SOYBEANS	1st: At 6 leaf stage, 2nd: Prior to flowering, 3rd: 1 month later	Apply with boom spray just prior planting
PEANUT	1st: At 6 leaf stage, 2nd: 1 month later, 3rd: 1 month later	1 week before planting or as a side dressing during the first two months
SUBTROPICAL FRUITS/NUT TREES	1st: Pre-flowering, 2nd: At petal fall, 3rd: 5 weeks later	Through irrigation at a bud burst or first spring growth
NURSERIES	Apply every 3 weeks	Apply as a soil drench. Soak seedlings
TURF LAWN	In monthly intervals in conjunction with herbicides if suitable	Apply through irrigation or sprayer in spring and autumn
ROSES FLOWERS	Spray every 3 weeks	Once a month through irrigation or fertigation
FOLIAR APPLICATION RATE (per ha): Strong-26: 2-3 l, Strong-N: 3-4 l, Strong: 0.5-0.75 kg		SOIL APPLICATION RATE (per ha): Strong-26: 7-15 l, Strong-N: 7-25 l, Strong: 2-4 kg
		DILUTION RATES Foliarly Ground Soak seedlings STRONG 1:800-2:500 1:400 1:200 STRONG-G-26, STRONG-N 1:200-500 1:100 1:250