

Simak™ OR – new organic fertilizer containing red algae extract

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Every year, the market for innovative foliar fertilizers, amino acids and biostimulants for crop nutrition marks growth, which is undoubtedly due to the high uptake of valuable substances by the plants. This year as well, FMC is keeping pace with the dynamically developing market for these products, offering farmers a wide range of high-quality foliar nutrition products that perfectly meet the specific needs of crops in their different stages of development. In this way, it contributes to better absorption and achieving the maximum effect from fertilization with macroelements, leading to an increase in both the quantity and quality of the yield.

A new product that FMC has registered this year in its extensive portfolio of fertilizers, amino acids and biostimulants is the unique liquid organic fertilizer Simak™ OR, containing red seaweed extract. Simak™ OR is

an organic fertilizer with a new, patented active ingredient consisting of sulfated galactooligosaccharides, acting synergistically with microelements derived from red seaweed.

FMC uses the Sea-Combine™ technology, and what distinguishes it, when it comes to the extraction of red seaweed from the ocean, is the guaranteed constant and always fresh production. Unlike other technologies where seaweeds are harvested only in a specific period of the year, the cultivated farms for red seaweed extraction using Sea-Combine™ technology allow harvesting throughout the year, thanks to the favorable climate and stable conditions, which also leads to always fresh production with consistently guaranteed quality. Processing fresh seaweed also preserves the unique bioactive compounds that would otherwise be lost during sun drying.

The active ingredient of completely natural origin interacts with the plant and triggers the expression of genes responsible for important plant functions. In this way, both the production of hormones affecting photosynthesis, cell division, homeostasis, metabolism, flowering, fruit formation, and the uptake of nutrients are improved.

The patented formulation of Simac™ OR with an enriched potassium content, in combination with sulfated galacto-oligosaccharides, helps to cope with stress caused by drought, salinity, pesticides, etc. Plants treated with Simac™ OR have better growth and yield parameters under drought conditions. In addition to abiotic stress, Simac™ OR helps crops to cope with the stress induced by the use of plant protection products. Simac™ OR acts as an anti-stress agent to reduce leaf temperature in plants experiencing stress from the application of plant protection products, helping to optimally regulate stomatal opening under stress conditions.

Fertilizer use efficiency is a major issue worldwide. Nutrient uptake remains in the range of 20% to 60%, depending on the nutrient. Simac™ OR helps to increase fertilizer use efficiency. In field bioefficacy studies, it has been observed that nutrient uptake in grain and straw increased compared to the recommended package of practices. Simac™ OR has chelating properties that support the synergistic action of microelements.

Additional advantages offered by Simac™ OR include an increase in the lateral root system of the plant, improvement of soil health, enhanced photosynthesis, biosynthesis, cell division, metabolism, intensified fruiting and flowering, thanks to the high potassium content in the formulation.

Simac™ OR can be applied by foliar spraying or through drip irrigation systems and at any time during the crop growth period. It is applied 2–4 times during the vegetation period at a rate of 75–100 ml/da.

The product is ECOCERT certified and is suitable for use under eco-schemes in relation to the implementation of the strategic development plan.