

Valagro third way, make it happen!



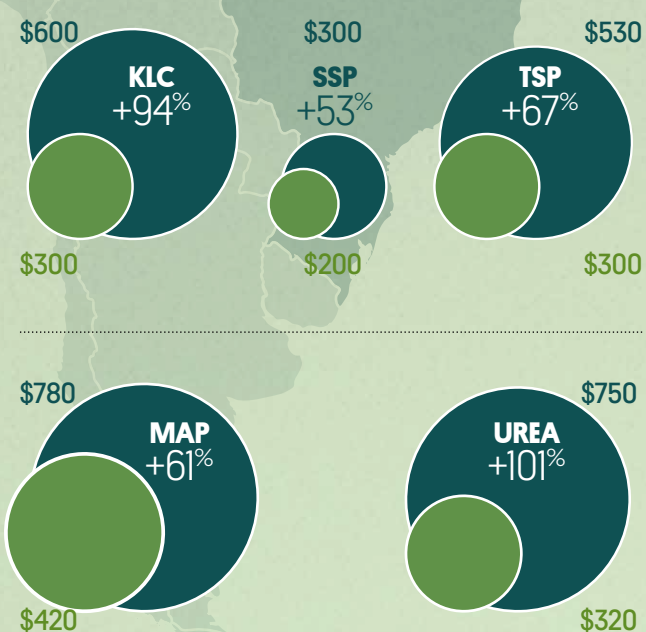
The severe shortage of raw materials has pushed up the prices of NPK, which are some of the main input costs for crops.

Whether it is due to making the management decision to **decrease fertilizer rates** because of prices, or inability to apply fertilizer due to supply issues, **many hectares of row crops and also F&V around the world, will not have sufficient nutrients to maximize yields.**



+75% RAW MATERIALS COST INCREASE

Fertilizer prices | BRAZIL CASE



KLC > Potassium Chloride - SSP > Simple Super Phosphate 19% P2O5
TSP > Triple Super Phosphate 45% P2O5 - MAP > Monoammonium Phosphate

- There was a significant increase in all raw materials prices used in fertilizer formulations in Brazil and the largest increases were concentrated in October, reaching the price peak.
- On average, increases in the cost of fertilizers increased 75% in 2021 over the previous year.
- In addition, many producers face problems with the availability of fertilizers needed to start planting or to maintain their plantations.

NOTE: Dollar Price FOP Port of Paranaguá - Brazil

Following a typical fertilization plan for some crops in Brazil, we can see that **fertilizer costs increased.**

COFFEE

		2020	2021
N	300 Kg/ha	199.2	400.8
P ₂ O ₅	75 Kg/ha	81.12	124.38
K ₂ O	250 Kg/ha	131.45	254.72
		\$ 411.77	\$ 799.90

+89%

SOYBEAN

		2020	2021
N	-	-	-
P ₂ O ₅	100 Kg/ha	85.28	141.44
K ₂ O	80 Kg/ha	40.56	78.47
		\$ 125.84	\$ 219.91

+75%

CORN +80%

		2020	2021
N	140 Kg/ha	98.90	197.60
P ₂ O ₅	105 Kg/ha	110.77	174.90
K ₂ O	60 Kg/ha	30.50	59.00
		\$ 240.07	\$ 431.50

+80%

Biostimulants represent a viable solution to save crop losses

Plant biostimulant definition



A plant biostimulant shall be an EU fertilising product the function of which is to stimulate plant nutrition processes independently of the product's nutrient content with the sole aim of improving one or more of the following characteristics of the plant or the plant rhizosphere:



NUTRIENT USE EFFICIENCY



TOLERANCE TO ABIOTIC STRESS



QUALITY TRAITS



AVAILABILITY OF NUTRIENTS TIED-UP IN THE SOIL OR RHIZOSPHERE.

Valagro has solutions to support farmers to reduce the impact of NPK shortages and price increases by ►

Improving nutrient uptake

► PBS with direct action on nutrient uptake

Actiwave and YieldON are PBS with direct actions on nutrient uptake. We have several evidences from omic-technologies and field trials that can support this claim.

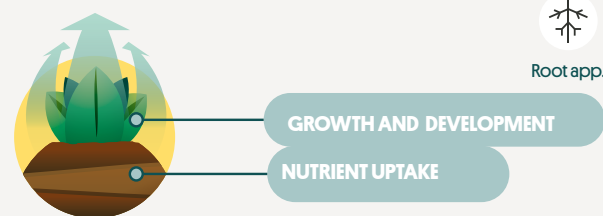
Actiwave is a biostimulant for root application and it is able to stimulate protonic pumps to absorb more nutrients from the soil.

YieldON is a foliar biostimulant specific for row crops able to improve uptake and transport of nitrogen and the microelements Zn and Fe, and at the same time it increases phosphate use efficiency.



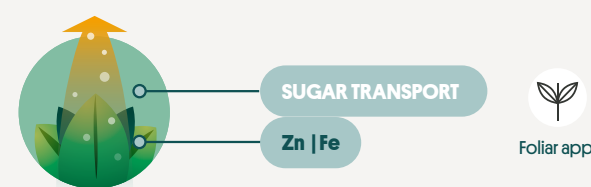
ACTIWAVE increases the absorption of nutrients

- Increases the plant's ability to absorb the nutritive elements in the soil.
- Optimizes mineral fertilization.



YIELDON highest crop productivity, highest return for farmers

- Better uptake and transport of sugars and nutrients.
- Promotion of cell division > larger seeds.
- Fatty acids biosynthesis and transport.



► PBS with indirect action on nutrient uptake

For root application:
Radifarm is a root promoter and is an important product to be used in the early stages of plant development, in order to ensure

excellent root absorption of nutrients. **Viva** acts on the rhizosphere, by improving the availability of nutrients near the roots.

Talete is our new biostimulant specific for water crop productivity. In addition to the specific effect on optimizing water use by the plant, it has been demonstrated that the product can also have an effect on water uptake. Indirectly, this could be also linked with an uptake of nutrients present in the soil solution.

For foliar application:
Mc Extra and **Mc Cream** have positive effects on plant metabolism which is strictly related to the use of nutrients in the plant.

Megafof is anti stress and growth activator, and it can help the plant to overcome critical moments due to poor nutrition.

We also suggest using Megafof with foliar NPK, in order to optimize their absorption in the plant.



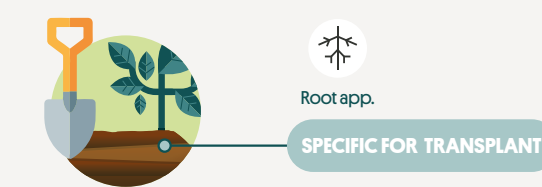
MEGAFOF anti-stress and growth activator

- Promotes plant growth.
- When applied in case of abiotic stresses, allows the plants to quickly overcome the stress. Megafof is also a carrier of products in foliar applications.



RADIFARM root promoter, reduces transplant stress

- Ensures full establishment of transplanted or replanted plants.
- Reduces the time to overcome post transplant stress.



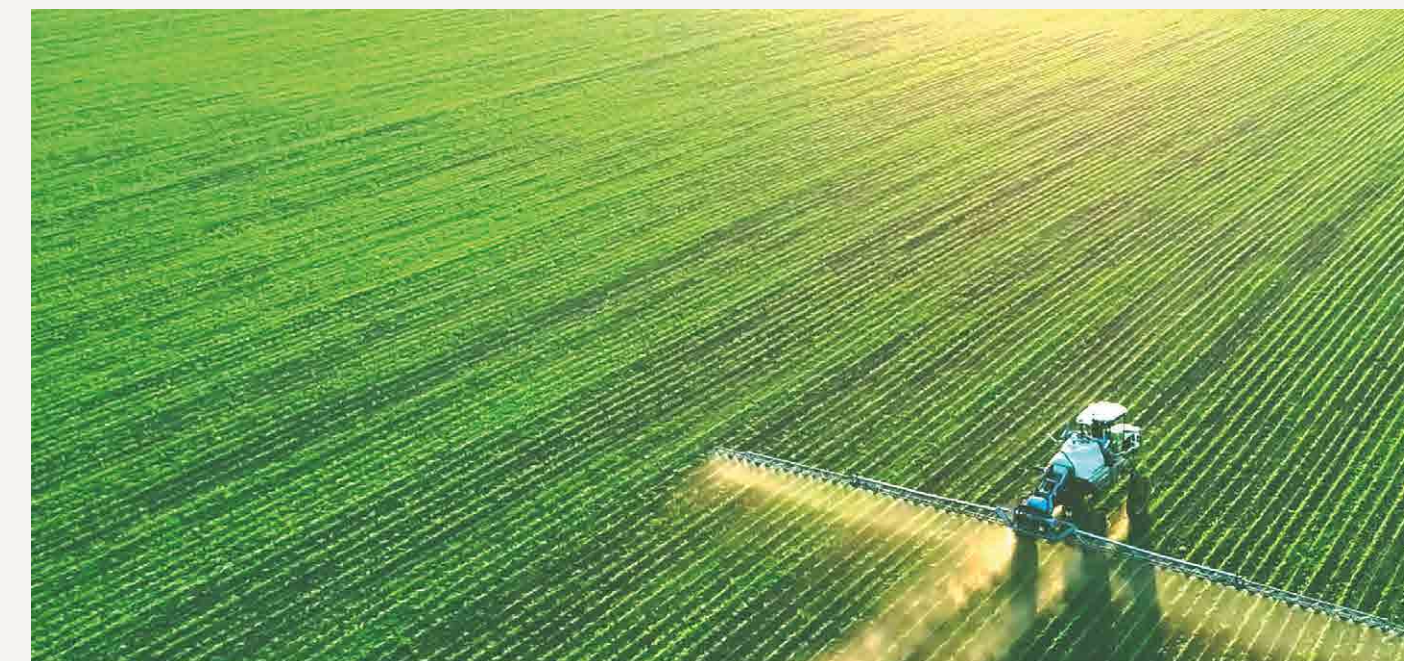
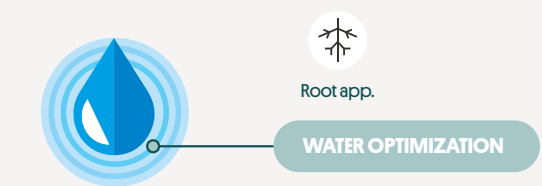
VIVA Improves the rhizosphere efficiency and the vegetative productive balance

- Revitalizes and improves the structure and biochemical activity of the rhizosphere.
- Ensures the correct balance between the vegetative and productive part of the plant.



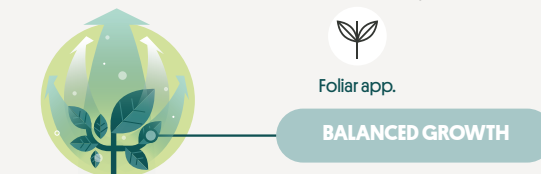
TALETE Increases crop water productivity

- Increases the economical and biophysical gain from the use of a unit of water used in crop production.



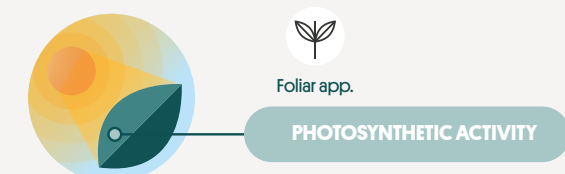
MC EXTRA Supports balanced plant growth maximizing crop yield

- The biologically active ingredients ensure a quantitative increase production while maintaining optimal, balanced growth.



MC CREAM Helps plants to utilize light energy more efficiently and increases photosynthetic activity

- Tailored to stimulate plant growth and key physiological processes linked to photosynthesis.

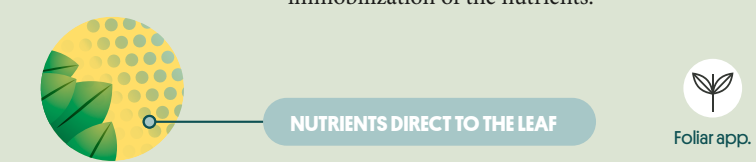


► Supplying lower doses of NPK efficiently by foliar application



PLANTAFOL Why and when to use foliar fertilization

- During unfavorable soil conditions
- Complementary strategy to soil treatments.
- Foliar nutrient sprays can help reduce nutrients run-off and leachings from soils and thus reduce contamination of water table.
- Helps to protect the profitability of the production supporting yield with low rate.
- Eliminates the problems like fixation and immobilization of the nutrients.





Be a part of Valagro's digital Community.
Explore the brand-new app e-Hub.
Join us here!

Win the Global challenge together.

Valagro S.p.a
Zona Industriale Via Cagliari, 1
66041 Atesa CH - Italy
Phone +39 0872 8811 / Fax +39 0872 89 7416
www.valagro.com

