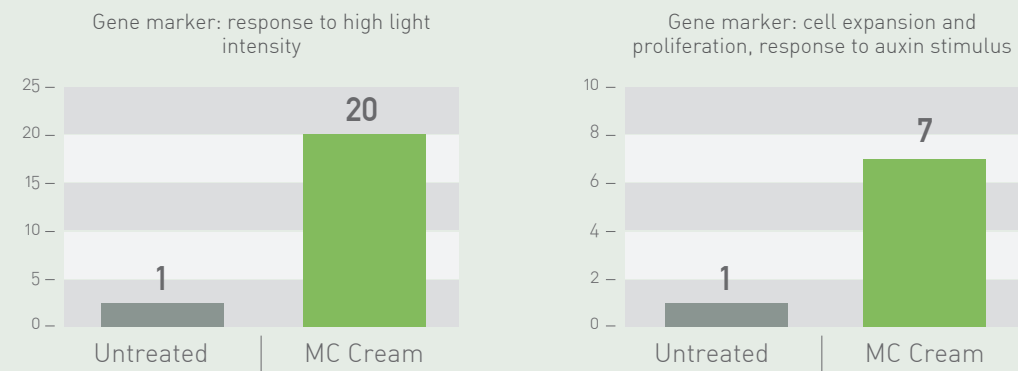


EXPERIMENTAL TRIALS

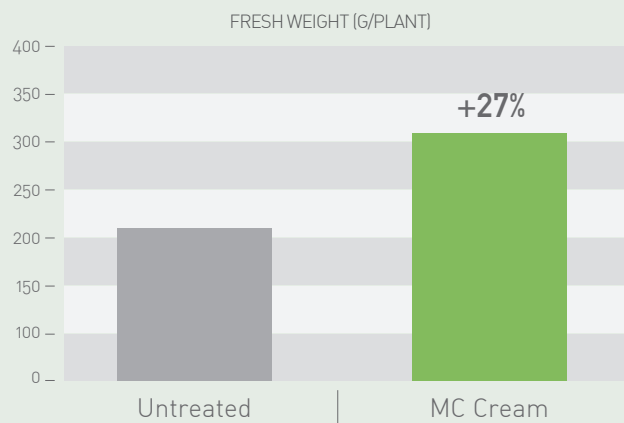
GENOMIC APPROACH
“GENE CHIP ANALYSIS”

MC CREAM increased the activation of genes involved in the response of stress (high light intensity), cell expansion and proliferation, response to auxin stimulus. (according to TAIR description, www.arabidopsis.org)



COUNTRY: Italy
LOCATION: Pisa (PI)
VARIETY: Longifolia

APPLICATIONS:
4 after transplant
every 7 days
SYSTEM: open field
RATE: 200ml/hl



DIRECTION FOR USE



CROPS	APPLICATION TIMING	RATE
FRUIT CROPS: POME FRUIT	1st treatment: flowering 2nd treatment: fruit setting 2-3 treatments every 7-10 days	2-4 L/ha
FRUIT CROPS: STONE FRUIT	1st treatment: Dying sepal crown 2nd treatment: from fruit setting, 2 applications every 7-10 days	2-4 L/ha
POTATO	From flowering-first tubers, 2 treatments every 7-10 days	2-3 L/ha
VEGETABLES (cucurbitaceae - solanaceae)	Applications starting from first trusses flowering every 7-10 days. Repeat at subsequent flowering.	2-3 L/ha
STRAWBERRY	2-3 applications starting from flowering	2-3 L/ha
ARTICHOKE	2-3 applications starting from differentiation of the central flower head	2,5-3 L/ha
INDUSTRIAL CROPS	1-2 treatments during the vegetative development	2 L/ha

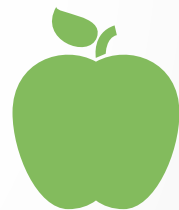


Valagro S.p.A.
Zona Industriale Via Cagliari, 1
66041 Atesa (CH) - Italia

Tel: +39 0872 881.1
Fax: +39 0872 897.416
www.valagro.com



MC CREAM



Increases
photosyntetic activity
and production levels



MC CREAM is a technical solution made up of plant extracts derived from the algae *Ascophyllum nodosum* capable to positively influence plant metabolic activity, increase photosynthesis and production levels. The active phytoingredients are obtained through specific extraction processes and developed from the experience acquired by Valagro's exclusive Geapower system of technologies.
www.valagro.com





WHAT IS MC CREAM

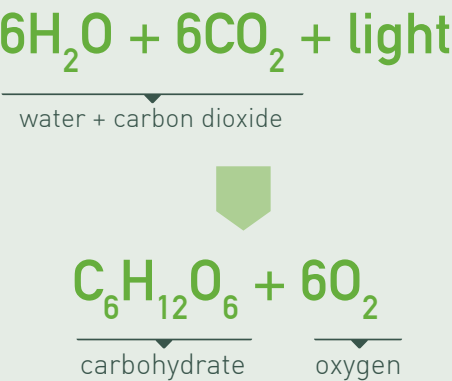
MC CREAM is a biostimulant in cream formulation with high concentration of active phyto-ingredients extracted from *Ascophyllum nodosum*, opportunely combined and processed to stimulate plant metabolic activity, increase photosynthesis and production levels.
MC CREAM is the results of the specific and distinctive GEA 644 technology.

WE KNOW *Ascophyllum nodosum* LIKE NOBODY ELSE!

The wide knowledge of *Ascophyllum nodosum* is the result of the “Vertical Integration” that Valagro realizes with its Norwegian subsidiary Algea. In more than seventy-five year of experience on plant physiology, we have studied seaweeds in depth characterizing more than 95% of *Ascophyllum nodosum*.

PHOTOSYNTHESIS AND PRODUCTION: what are the main limiting factors?

The ability of plants to grow results from the activation of fundamental physiological processes such as photosynthesis and the use of nutrients from the soil. **Photosynthesis** is the mechanism through which the plant produces organic substances - primarily carbohydrates - starting with atmospheric carbon dioxide (CO2) and water (H2O), using sunlight. The entire photosynthetic reaction can be summarised as follows:



Non-ideal environmental conditions such as **high and low radiation** reduce photosynthetic efficiency, thereby limiting the plant’s development process. In these cases, the plants need compounds that safeguard the activities of the photosynthesising organs, increasing the production of photoassimilates.

Together with photosynthesis, a series of metabolic reactions are put into action **to encourage the formation and development of tissues and fruits**. The presence of nutritional and hormonal factors in ideal concentrations plays a key role in these mechanisms. For example, the plant could require growth factors that can have a positive influence on the growth of the plant and fruits, improving the cell development processes.

MC CREAM: the natural solution to increase photosynthetic activity and the production levels

MC CREAM confers many positive effects when plant physiologically needs energy. Specifically, the formula contains betaines, biomolecules that **protect and promote photosynthetic activity**. In fact, recent studies have demonstrated the positive effect of these molecules in **increasing chlorophyll content** in leaves, **protecting photosystems** and **activating the enzyme RuBisCo**, which is responsible for incorporating CO2 in organic substances. At the same time, this product contains Manganese (Mn), which is a **catalyst** for their formation.



Furthermore, the presence of other biologically active ingredients gives MC Cream the attributes of “**metabolic activator**”. Biomolecules present inside the product **stimulate cell division and distension**, increasing the growth of plant organs and fruit. They are also capable to induce a “**hormone like activity**”, improving the **plant hormonal substances perception** and amplifying their action. This produce a quantitative and qualitative yield increase.

ACTIVE PHYTOINGREDIENTS AND USE FUNCTIONS:

BIOLOGICALLY ACTIVE INGREDIENTS
These substances perform a series of functions related to the control of **growth and development** by **modulating the physiological processes** of the plant. They can act as chemical messengers in inter-cellular communication and interact with specific proteins called receptors.

AMINO ACIDS
Represent the “building blocks of the proteins and are important in conditions of **abiotic stress**. Precursors of multiple active molecules.

BETAINES
They produce beneficial effects even in a very small quantity (as in SEs). Physiological role in the **response to stresses** (osmotic stress, drought, high temperatures, salinity etc.). Favour the **retention of water inside the cells**, protecting them against dehydration, enhance **leaf chlorophyll content** and **photosynthesis protection**.

MICRONUTRIENTS (Mn)
Photosynthesis, metabolism of nitrogen, enzymatic activation in the Krebs cycle. Involved in the **synthesis of auxins**.

WHY CHOOSE MC CREAM

- 1

It is totally **safe and natural**

2

It maximizes plant’s performance and results thanks to the exclusive **GEA 644 technology**

3

Not only Mn and Zn; It contains 100% phytoingredients from *Ascophyllum nodosum*

4

Specific **product target**

5

Exclusive **cream formulation**

6

A **step beyond**
-



Valagro is a leader in the production and commercialization of biostimulants and specialty nutrients. Founded in 1980 and headquartered in Atessa (Italy), Valagro is committed to providing innovative and effective solutions for plant nutrition and care. Its mission is to increase the quantity and quality of plants and harvested crops while enhancing productivity and reducing the environmental impact of cultivations. Valagro uses science in the service of mankind to improve nutrition and quality of life while respecting the environment.



INNOVATION ACCORDING TO GEAPOWER

Use of Science to seize and exploit the potential of Nature with an eye to environmental sustainability:

This is the basic principle behind GeaPower, the unique technology platform developed by Valagro to transform potential active principles into high-quality nutrient solutions. A technology based on four pillars:



Deep knowledge of active ingredients and raw materials



Proprietary Extraction Processes



Advanced Screening and investigation technologies



Proven ability to provide effective solutions for customer’s specific requirements