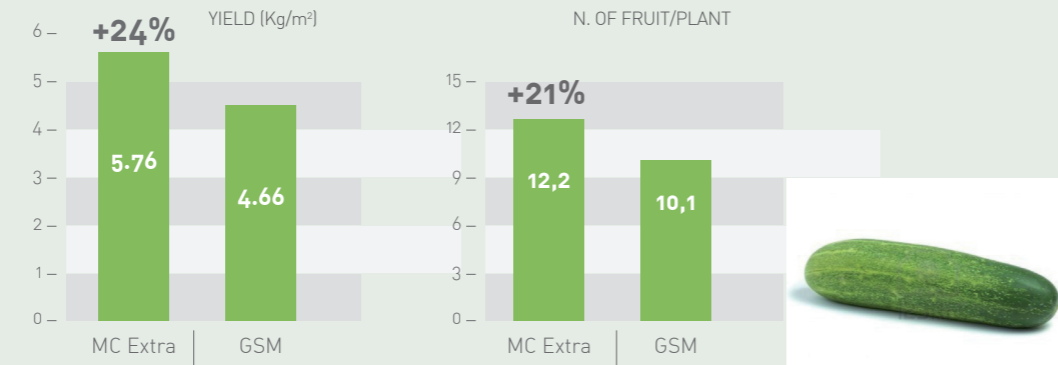


## EXPERIMENTAL TRIALS



**CUCUMBER**  
PRODUCTION  
INCREASE

Applications of MC Extra (1 kg/ha) ensure a quantitative increase of production while maintaining optimal vegetative-productive balance.



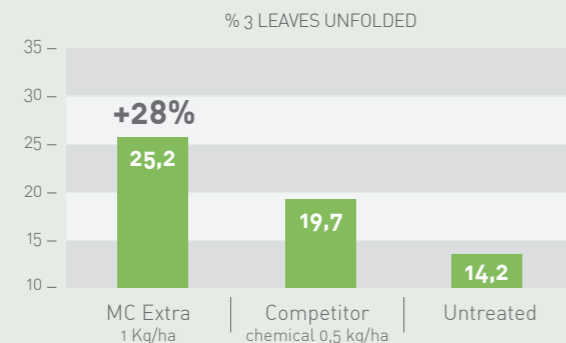
COUNTRY: **Spain**  
CROP: **Cucumber**  
VARIETY: **Manglar**

APPLICATION: 2 at 10 and 20 days post transplant  
RATE: 1 kg/ha



**KIWIFRUIT**  
UNIFORM SHOOT  
DEVELOPMENT

Mc Extra application on kiwifruit and winegrape at bud wool stage acts on buds standardizing the initial shoot development.



COUNTRY: **Italy**  
LOCATION: **South Italy**  
VARIETY: **Hayward**

APPLICATION: 1 at 40% bud wool stage  
RATE: 1 Kg/ha

## DIRECTION FOR USE



CROPS



APPLICATION TIMING



RATE

FRUIT CROPS: STONE FRUIT	From the beginning of fruit swelling 2-3 applications every 7-10 days	0,5-1 Kg/ha
FRUIT CROPS: POME FRUIT	From the first petals falling 2-3 applications every 7-10 days	0,5-1 Kg/ha
GRAPE - KIWI FRUIT	1st application: Bud - wool stage - Green shoot tips 2nd application: visible bunches - Pre-flowering	0,5 -1 Kg/ha
VEGETABLES (tomato, pepper, aubergine, courgette, cucumber)	From development of plant to flowering: application every 7-10 days	0,5-1 Kg/ha
OTHER VEGETABLES	Plant development. Applications every 10-15 days.	0,5-1 Kg/ha
STRAWBERRY	From vegetative recovery 2 applications every 7-10 days	0,5-1 Kg/ha
FLOWERS	From plant development to pre-flowering: applications every 7-10 days	0,5-1 Kg/ha
ROW CROPS	1 application at vegetative development	0,5-1 Kg/ha



**FOLIAR**  
APPLICATION



**Increases**  
production and  
vegetative-productive  
balance

**Valagro**<sup>®</sup>  
Where science serves nature

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**MC EXTRA** is a technical solution made up of plant extracts derived from the algae *Ascophyllum nodosum* capable to positively influence plant metabolic activity, increasing production and improving vegetative-productive balance. The active phytoingredients are obtained through specific extraction processes and developed from the experience acquired by Valagro's exclusive Geopower system of technologies.

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## WHAT IS MC EXTRA

MC EXTRA is a biostimulant in microflakes formulation with high concentration of active phyto-ingredients extracted from *Ascophyllum nodosum*, opportunely combined and processed to ensure a quantitative increase in production while maintaining optimal vegetative-productive balance.

MC EXTRA is the results of the specific and distinctive GEA 235 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*.

## VEGETATIVE/PRODUCTIVE BALANCE AND PRODUCTION: what are the main limiting factors?

Plant development is normally structured in two processes: vegetative and reproductive growth. The former gives rise to all plant organs usually delegated to carrying out photosynthesis, such as leaves. The latter leads to the production of fruit following fertilization of the flower. For ideal, physiologically correct development, **the vegetative and reproductive phases must be balanced** during the biological cycle of the plant, so as to obtain ideal results in terms both of quality and quantity. If this does not happen, then **fruit setting is reduced or delayed**, leading to **poor fruit production with low quality**. This type of problem generally occurs in situations with excessive vegetative bloom, which can be caused by various factors

including an excess of fertilizer or water, or hormonal imbalance. This unevenness starts a chain of negative effects, as the excessive vegetation **covers portions of the plant** that need light to photosynthesize correctly and transport sugars to the fruit, which are also shaded. Excessive vegetation also **obstructs pollination** and creates a damp environment that **increases the likelihood of attacks by pathogens** in both the foliage and the fruit, which may drop abnormally.



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.

## MC EXTRA: the natural solution to increase vegetative/productive balance and production

The objective to aim for is the balance between vegetative and reproductive growth that is achieved by using specific formulas that make the nutrients needed for sustained, but not excessive, growth available to the plant. MC Extra is the ideal solution as it is able to provide the key elements for the **correct vegetative/yield balance**, and therefore optimum production. In fact, it contains active phyto-ingredients in a proper balance. Furthermore, the building blocks for the

**growth of the stem, leaves and fruits** are provided by the amino acids and proteins present in the product. MC Extra also contains mannitol and betaines to properly **sustain growth, stress resistance and cell turgor**. Finally, the high concentration of biomolecules which also induce a **"hormone like activity"** makes this product essential to ensuring the correct **cell division and distension** needed to support the development of plant tissues and fruits.



### 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.

#### 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**.

#### MANNITOL

**Osmotic regulation**, involved in the **transport of Boron**. It preserves the three-dimensional structure of the molecules, chelating effect of trace elements. Ready **source of energy** for the plant.

#### MICRONUTRIENTS (K)

Promotes the **sugar development**, the **respiration** and the absorption of nitrogen, it improves **flowers** and **fruits coloration** and it makes the plant stronger.

#### AMINO ACIDS AND PROTEINS

Represent the "building blocks of the proteins and are important in conditions of **abiotic stress**. Precursors of multiple active molecules. Proteins are associated with a specific biological functions.

## WHY CHOOSE MC EXTRA

- 1 It is totally **safe and natural**
- 2 It maximizes plant's performance and results thanks to the exclusive **GEA 235 technology**
- 3 **Not only K**; It contains 100% phytoingredients from *Ascophyllum nodosum*



- 4 Specific **product target**
- 5 **Microflakes formulation** with extremely high solubility
- 6 **A step beyond**



## 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