

# IONIC COPPER Copper – based foliar fertilizer





### With the Power of Ionic Copper

ICC contains 5.2g of copper and 3.8g of sulfur per 100ml and is manufactured using an innovative and unique copper processing technology, resulting in the natural creation of copper water ions [Cu(H2O),]<sup>2+</sup>.

Each water ion takes on the structure of an octahedral complex with a square distortion, enabling it to act in a unique and more effective way due to copper's high penetrative capacity in ionized form, significantly enhancing plant nutrition and defense.

### **Mechanism of Action of ICC**

Due to its remarkable penetration ability, ICC can pass through cell walls and membranes without hindrance, allowing its absorption by plant cells without interference from the external protective layers of plant organs. It rapidly disperses into plant tissues and becomes readily available to cells, effectively offering its nutritive and protective properties.

At the same time, it contributes to the absorption of other trace elements and metals because of its ability to break down metal salt complexes, thus facilitating their release and assimilation.



### Superiority of ICC Compared to Other Copper Formulations

- Ionic copper in ICC is the most biologically active form of copper across a wide range of pH values above 5, while other copper forms lose their effectiveness at high pH levels. Therefore, ICC can be used seamlessly across all pH levels.
- Due to the low pH value of the product, ICC reduces the pH of the spray solution, aiding the action of plant protection products when applied in combination with ICC.
- ICC does not settle or form sediment. It remains uniformly distributed and fully dissolved in its original packaging and throughout the volume of the spray solution when dissolved.
- Due to its high penetration capacity, ICC is used in much lower concentrations compared to other forms of copper, resulting in reduced phytotoxicity and making it applicable at all stages of crop development.
- The low concentration of ionic copper does not create residue issues in crops while simultaneously providing the highest effectiveness of action to the product.

#### **GENERAL**

ICC should be applied preventatively to avoid copper deficiency symptoms and to enhance plant defense. The dosage for soil application with drip irrigation varies from 200-600ml per hectare, depending on the crop type, its requirements, and soil properties. For foliar applications, it is recommended to conduct sprayings early in the morning or after sunset for better absorption by plant tissues.





### **VINEYARDS**

FOLIAR SPRAYS: 100-150ml per 100 liters of water, every 10-14 days, from the beginning of vine growth to grape closure. In extreme cases, when required, the dosage can be increased to 200ml per 100 liters of water with a 21-day interval between applications.





### POME FRUIT (APPLES, PEARS, QUINCES) KIWI AND CITRUS (ORANGES, TANGERINES, LEMONS, GRAPEFRUITS)

FOLIAR SPRAYS: 100-150ml per 100 liters of water, every 10-14 days, from the beginning of the vegetative period until two weeks before harvesting. In extreme cases, the dosage can be increased to 200ml per 100 liters of water with an application interval of 21 days.





#### **OLIVE AND WALNUT**

FOLIAR SPRAYS: 100-150ml per 100 liters of water, every 10-14 days, from the beginning of vegetation until two weeks before harvesting. In extreme cases, when required, the dosage can be increased to 250ml per 100 liters of water with an application interval of 21 days.





### STONE FRUIT (PEACHES, APRICOTS, CHERRIES, PLUMS, ALMONDS)

FOLIAR SPRAYS: 100-150ml per 100 liters of water, every 14-21 days, with an emphasis on the stages of bud swelling and petal fall.

In the case of peaches, no more than 2 consecutive copper sprays (ICC or another copper-based formulation) should be applied within intervals shorter than 21 days.





## OUTDOOR AND GREENHOUSE VEGETABLES SOLANACEOUS (TOMATOES, PEPPERS, EGGPLANTS, POTATOES) AND CUCURBITS (CUCUMBERS, ZUCCHINIS, MELONS, WATERMELONS)

FOLIAR SPRAYS FOR SOLANACEOUS: 70-150ml per 100 liters of water, depending on the size and growth stage of the crop, every 14 days.

FOLIAR SPRAYS FOR CUCURBITS: 50-100ml per 100 liters of water, depending on the size and growth stage of the crop, every 14-21 days.





### LEAFY VEGETABLES (LETTUCE, SPINACH, CELERY, CABBAGE, CAULIFLOWER, BROCCOLI, ARUGULA)

FOLIAR SPRAYS: 50-120ml per 100 liters of water, depending on the size and growth stage of the crop, every 14 days.

### **BENEFITS OF USING ICC**

- The ionic form of copper in ICC allows for rapid penetration into plant tissues and maintains its efficacy regardless of weather conditions.
- · ICC does not stain or blemish leaves and fruits.
- It can be applied at all stages of the cultivation cycle, even during flowering, without causing phytotoxicity.
- · It enhances plant resistance to winter and spring frosts.
- It has very low residue levels, resulting in a minimal environmental footprint.
- Compatible with integrated management systems in organic (according to EU regulations 834/07 and 889/08) and biodynamic farming.
- It is 100% water-soluble and does not clog pipes and nozzles of spraying and irrigation systems.
- It demonstrates high effectiveness in foliar applications and in the soil through hydroponic systems and root fertilization, ensuring increased production of high quality.



## From the **Copper Age...** to the **Ionic Copper Age.**



### **COMPATIBILITY**

Due to its acidic pH, ICC exhibits good compatibility with most agrochemicals.

In any case of combining it with other products, it is recommended to conduct a small-scale test.



#### **PHYTOTOXICITY**

It does not induce phytotoxicity at recommended doses.

Please pay attention to the usage instructions

provided on the product label.

### ATTENTION!

Read the label carefully before use



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