# NATURAL POWER





syngenta.

### Welcome to Syngenta Ornamentals

Syngenta Professional Solutions is a fully dedicated, global ornamental controls business passionately committed to working with growers and industry partners around the world. We are proud to have a leading, global portfolio of high-quality products that can be tailored together by our local experts to create simpler, more profitable, more responsible ornamental growing solutions.

At Syngenta Ornamentals UK, we work with you to make sure every plant achieves its full potential. The impact of pests or diseases on your crop can be huge, it is at this point our expertise becomes an essential and critical component for success.

We have established a platform full of information to support you on your growing journey:

- The Art of Application: videos full of tips and advice for improving your spray applications
- The Advice Hub: learn about resistance management strategies, pest & disease life cycles and our adjuvant FAQs
- The Advisory Blog: have you signed up yet? Regular updates on a range of topics including:
  - Keeping seasonal diseases in check
  - Growth regulators tested for poinsettia
  - Take the stress out of plant health
- You can also find us on Facebook, Twitter and Instagram, just search Syngenta Ornamentals UK

www.syngentaornamentals.co.uk

### YOUR BENEFITS WITH HICURE



### Reliable

- Proven stress reduction
- Improved quality and shelf life
  - Better root development
    - Crop losses reduced

### **Flexible**

- Efficient uptake
- · Easy to apply
- Highly compatible in tank mixes
  - Small doses give significant effects

### Natural

- Naturally derived
- · Safe to beneficials
- IPM compatible

### **Powerful**

- High concentration of Amino Acids
- Proven performance on ornamentals
- Syngenta's technology and product expertise



# How it works: the role of amino acids in plants

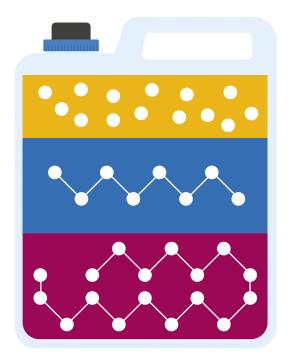
Amino acids are building blocks for proteins which play an essential role in the life of a plant. Proteins are responsible for the cell structure, but they also control all the different chemical processes in the plant – from photosynthesis to transporting nutrients or regulating flowering.

Under optimal growing conditions, plants synthesise their own amino acids through thousands of chemical reactions. The creation of proteins by linking specific amino acids – initially into chains known as peptides – also consumes a lot of energy. Reducing that energy cost allows it to be redirected to other aspects of growth and development.

Under periods of abiotic stress, plants decrease their production of amino acids and can even break down structural proteins to 'recycle' the required amino acids.

A source of "ready to use" amino acids means the plant won't have to invest energy making them from scratch and the need to break down proteins is reduced. It will even have an additional supply of building blocks to help create the proteins required to counter the stress it is experiencing. This results in improved **health**, **growth and vigour**.

In our trials we saw that supplying the additional amino acids in Hicure led to greater root mass, longer shelf life as well as improved health, growth and vigour which was more resistant to disease.



Hicure contains a range of Amino acids and both long and short chain peptides. The high concentration of amino acids in Hicure means they're ready for the plant to build into key proteins.

#### Free amino acids

18 different free amino acids immediately available to the plant to protect cells from stress. These also conserve plant energy by providing an organic N source, thus reducing the requirements for N uptake from soil which is energy demanding.

#### Short chain peptides

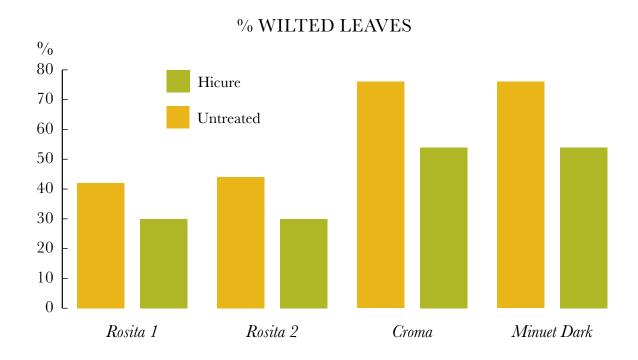
Absorbed more slowly and then as needed converted into amino acids or they form proteins as the plant needs over 7 to 10 days. Proteins have many important functions in the plant.

#### Long chain peptides

These can be considered as slow-release peptides, extending a positive residual effect on the soil and being absorbed into the plant over a period of weeks.

# Improved shelf life

Similar to other cut flowers, the shelf life in Lisianthus is identified by the number of wilting stems. By applying Hicure during production, the quality of the flowers can be improved and wilting reduced.



Lisianthus: 9 days at consumer phase

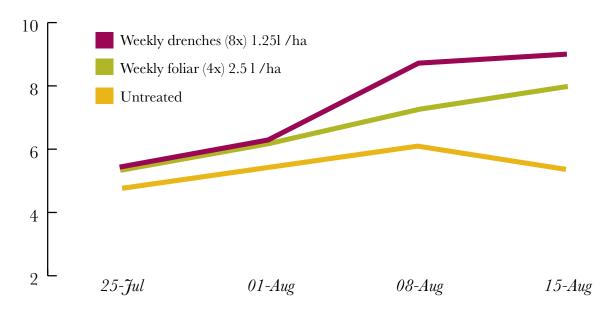




# Improved performance with Hicure

In outdoor crops, Hicure can support the plant to overcome suboptimal climatic circumstances and increase plant quality. Hicure stimulates root development leading to better plant quality and greater vitality of outdoor plants. In several transport and store simulation trials, Lavendula 'Blue Scent®' increased the number of flowers.

#### AVERAGE NUMBER OF FLOWERS PER POT AT CONSUMER LEVEL



Trials at Delphy (Netherlands)

Untreated Hicure treated

Syngenta grower trials

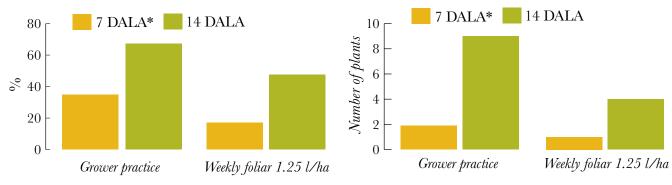


## Stronger plants are more resistant to disease

Hicure enhances the vitality of the plants and makes them stronger against disease. Recent field trials with Cyclamen 'Midori Salmon' illustrate the delay in Botrytis development in the plant and on the flowers.

# B. CINEREA INFECTION IN FLOWERS

# B. CINEREA INFECTION IN PLANTS



\*DALA: days after last application

#### Cyclamen: 4 weeks at consumer phase



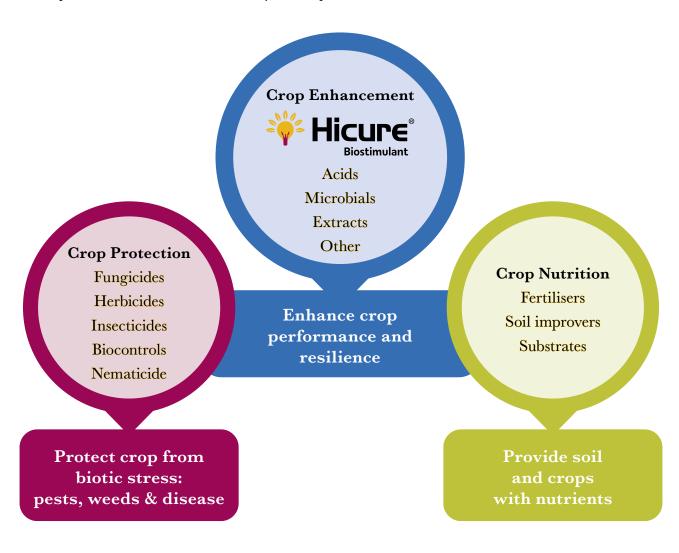


### What is a biostimulant and what are the benefits?

Biostimulants are materials which contain substances or microorganisms which, when applied to plants, stimulate natural processes which benefit nutrient uptake, metabolism efficiency and tolerance to abiotic stress – and so improve crop quality.

#### Backed by trials and independently verified

Biostimulants are set to play an increasingly important role in the nursery. Forthcoming EU fertiliser regulations will help growers by requiring label claims for biostimulant products to be supported by evidence. This creates an onus on manufacturers, like Syngenta, to demonstrate to regulators and growers that product claims are justified. With that in mind, you can rest assured that Hicure has been through rigorous testing to support the information here, and that your subsequent use of Hicure will benefit your crop.



# Hicure in practice

The best results with Hicure are achieved when applied before crucial physiological phases (e.g. flowering or root development) or suboptimal conditions (e.g. drought, heat). Frequent applications give a more reliable effect than single treatments.

Hicure can be embedded easily in your daily activities. It can be mixed with most crop protection products and fertilisers and with all standard high-volume application devices.

Ornamental Plant	Effect		
Rose	Stronger, healthier flowers with extended shelf life		
Chrysanthemum	Longer, stronger stems		
Lisianthus	Extended shelf life with healthier looking flowers at consumer phase		
Callibrachoa	Less sensitive to drought stress		
Chrysanthemum (outdoor)	More uniform plants		
Cyclamen	Stronger, healthier plants with extended shelf life		
Ranunculus	Extended shelf life and healthier plants		
Hydrangea	Greater flowering in sunnier periods (reduced stress)		
Lavendula	Better establishment and garden performance, reducing losses.		



# Use and recommendations

### APPLICATION RATES

Crop	Treatment type	Dose (product) per treatment	Recommended interval (days)
Ornamentals	Foliar	1.25 L/ha	5-7
		2.5 L/ha	10-14
	Drench	2.5 L/ha	10-14
Cut flowers	Foliar	1.25 L/ha	5-7
		2.5 L/ha	10-14
	Soil/ irrigation	2.5 L/ha	10-14
	Foliar	1.25 L/ha	5-7
		2.5 L/ha	10-14
	Soil	2.5 L/ha	10-14

### GROWTH CYCLE APPLICATION FREQUENCY

	Planting	Crop development (Pinching)	Flower induction	Flowering
Hicure usage	Weekly	Every 2 weeks/ Weekly/Every 2 weeks	Weekly	Every 2 weeks
Root development	Drench			
Stress mitigation		Foliar		
Crop and shelf life			Foliar	











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