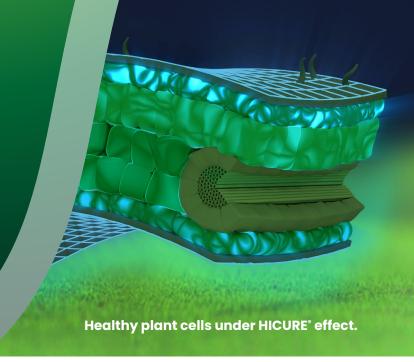


# What is HICURE®?

HICURE® is a highly concentrated biostimulant for the turfgrass industry consisting of amino acids and peptides. HICURE® supports natural processes within the plant, as well as enhancing plant performance overall – particularly under stress conditions.





### **FREE AMINO ACIDS**

Immediately available to the plant to protect cells from stress.

### **SHORT CHAIN PEPTIDES**

Absorbed more slowly over 7-10 days and forms proteins as needed by the plant.

### **LONG CHAIN PEPTIDES**

Slow release peptides, being absorbed into the plant over a period of weeks.

## The Role of Amino Acids in Plants

Amino acids are fundamental ingredients in the process of protein synthesis, directly or indirectly influencing the physiological activities of the plant. Free amino acids and short chained peptides are absorbed by leaves and roots very quickly. Once inside the plant they form the foundations of proteins which then play various roles in enzymatic, structural and functional roles such as photosynthesis.

### Amino Acids in HICURE®

HICURE® contains 19 amino acids realising 62.5% w/w of the total product. The free amino acids and short chained peptides (lighter and smaller) assimilate quickly, whilst long chained peptides (larger and heavier) exhibit excellent surfactant qualities on leaves creating a barrier reducing transpirational water loss.

# **HICURE®** Physiological Functions

The amino acids in HICURE® are comprised of chelators, osmoprotectants, organic nitrogen (N) and nutrients. Combined, they play critical roles: from enabling nutrients to move freely in the plant; inducing stress response mechanisms; supplying free amino acids under critical physiological stress periods; to delivering key micronutrients when nutrient and water uptake are interrupted.



### **HICURE®** is Derived From Natural Origins

HICURE® is a product of highly natural origin derived from collagen hydrolysis, a raw material very rich in amino acids. The formulation of HICURE® ensures that:

It is highly compatible in a wide range of tank mixes

It is suitable for inclusion in IPM strategies

It is safe to all beneficial micro-organisms

# Specific Amino Acids in HICURE®

HICURE® contains high levels of the amino acid L-Proline which has been demonstrated to regulate antioxidant activities during stress periods. Proline acts as a signaling molecule: modulating mitochondrial functions, influencing cell growth and triggering specific gene expression. The defensive nature of Proline delays senescence in the plant, essential during abiotic stress conditions.

HICURE® also contains high levels of the amino acid L-Glycine which is the smallest amino acid, making it an excellent organic chelating source. Glycine is an ideal tank mix partner for micro-nutrient applications as it binds around the nutrient molecule, ensuring fast movement into the leaf.

# Untreated HICURE\* treated (10 L/ha, 14 days)

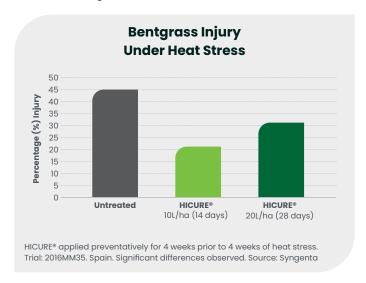
Source: Syngenta.

### **HICURE®** Trials

HICURE® has been independently tested in local and international studies in a wide range of turf situations.

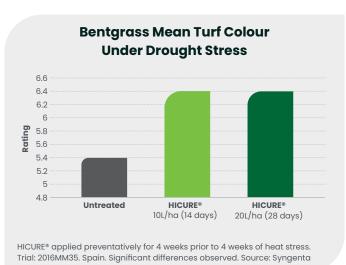
# **Stress Mitigation**

HICURE® displays less injury to heat stress in bentgrass when applied prior to stress commencing.



### **Stress Assistance**

In drought stress situations, preventative applications of HICURE® maintains colour and assists growth.







Applications of HICURE® in a program can enhance plant growth and quality, being especially beneficial during periods of abiotic stress and assisting plant recovery. For optimum plant quality, HICURE® should be used in conjunction with practices that promote good plant health. Best results will be obtained when applied at regular intervals starting prior to periods of plant stress.

$\mathcal{O}$	Safe	to us	e on all	turf types
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- Excellent tank mix partner with fertilisers
- Timing: HICURE® can be applied throughout the year and during any growth stage
- Formulation: Liquid
- Pack size: 10 L



Situation	Treatment type	Rate	Critical Comments
	Foliar	<b>10 L – 20 L/ha</b> or Garden sprayer	Apply in 250 – 500 L/ha of water or Garden sprayer: 100 – 200 mL per 5L/100 m².
T 0 1	Application	100 – 200 mL per 5 L water and evenly apply over 100 m <sup>2</sup>	Apply as part of a regular program. Recommended application interval 14 – 28 days.
Turf & Lawns	Soil Application		Apply in 500 – 600 L/ha of water or Garden sprayer: 100 – 200 mL per 5L/100 m2.
		20 L/ha	Wash in with 3 – 5 mm of irrigation after application. Recommended as part of a regular program on a 14 – 28 day interval.

# **Mixing and Application**

HICURE® can be applied with all kinds of spray and drench application equipment. Make sure the sprayer is clean and calibrated to give an even application at the correct application volume.

For more information visit www.syngentaturf.com.au

or speak with your local

Syngenta Territory Sales Manager

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