



syngenta®

HICURE®
Build your Turf's
Natural Energy

**The first biostimulant from
Syngenta powered by
Amino Acids and Peptides**



Hicure®
Biostimulant

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.



Healthy plant cells under HICURE® effect.



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:

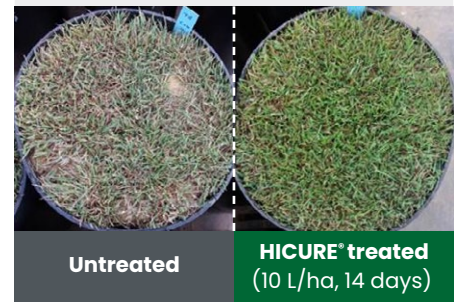
- It is highly compatible in a wide range of tank mixes
- It is suitable for inclusion in IPM strategies
- It is safe to all beneficial micro-organisms

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.

Turf under heat stress



Source: Syngenta.

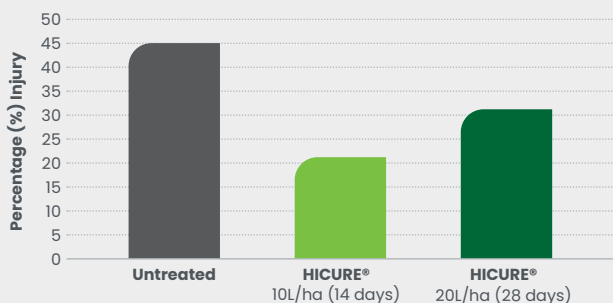
HICURE® Trials

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.

Bentgrass Injury Under Heat Stress

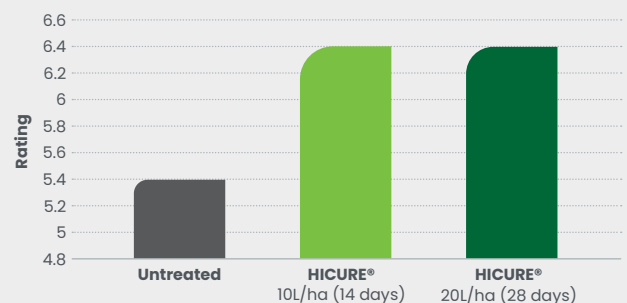


HICURE® applied preventatively for 4 weeks prior to 4 weeks of heat stress. Trial: 2016MM35. Spain. Significant differences observed. Source: Syngenta

Stress Assistance

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

Bentgrass Mean Turf Colour Under Drought Stress



HICURE® applied preventatively for 4 weeks prior to 4 weeks of heat stress. Trial: 2016MM35. Spain. Significant differences observed. Source: Syngenta

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.

- ✓ **Safe to use on all turf types**
- ✓ **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
Turf & Lawns	Foliar Application	10 L – 20 L/ha or Garden sprayer 100 – 200 mL per 5 L water and evenly apply over 100 m ²	Apply in 250 – 500 L/ha of water or Garden sprayer: 100 – 200 mL per 5L/100 m ² . Apply as part of a regular program. Recommended application interval 14 – 28 days.
	Soil Application	20 L/ha	Apply in 500 – 600 L/ha of water or Garden sprayer: 100 – 200 mL per 5L/100 m ² . 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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