

Maxstim™

Advanced treatments
for turf sod production
& maintenance

YOUR GUIDE
TO INCREASED PROFITS



powered by
AmphenoX™



STATEMENTS

We are experts in advanced crop treatments for sustainable agriculture and turf sod growing.

The combination of Maxstim's innovative bioflavonoid technology with our extensive field data gives you a world beating solution.

All our products, treatment protocols, and advice are designed to increase profits, improve quality, and optimise input efficiency.

C O N T E N T S

- 3. Discover Maxstim / Maxstim Products
- 4. Maxstim Turf / Maxstim Cynosa
- 5. What makes Maxstim Unique?
- 6. Research & Development
- 7. An Insight to Turf Growing
- 9. Turf Growing and Advanced Treatments
- 11. Maxstim Delivers Improved Profit Margins
for Turf Growers
- 13. Turf & Root Development Claim

Discover Maxstim

Maxstim is a scientifically-driven, innovative organisation responsible for developing a powerful range of advanced treatments. We are trusted around the world by progressive agricultural growers through to leading sports venues.

Each of our products improve plant and crop performance helping increase yields in the presence of diminishing Plant Protection Products (PPP) availability.

Maxstim's innovative research and development programme is driven by **CEO Dr Richard Salvage** and **Chief Scientific Officer Dr. Colin Fleming**.

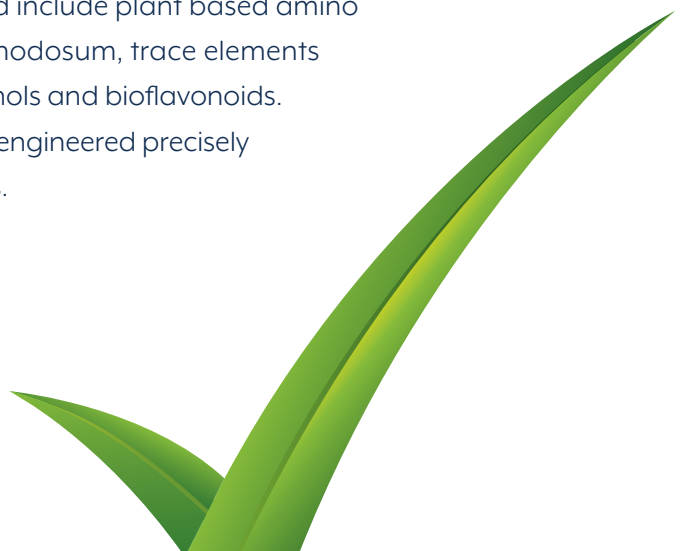


Maxstim Products

Our products are multi-sourced complex biostimulants that create a synergistic response from a wide variety of bioactive components.

Each product is the result of innovative research and include plant based amino acids, carbohydrates, organic acids, ascomycellum nodosum, trace elements and our own technology based on specific polyphenols and bioflavonoids.

This wide range of bioactive compounds have been engineered precisely to work synergistically for the most beneficial results.



Maxstim Turf

Maxstim Turf is designed to help turf sod growers reduce time to harvest and increase profit. Our specialist complex biostimulant maximises root development, chlorophyll production and minimises agrochemical inputs.



Use Maxstim Turf to see:

- Increased root development
- Reduced time to harvest
- Improved efficiency in nitrogen usage
- Improved resistance to stress
- Better seed germination
- Increased mass and depth of grass roots
- Improved plant growth and vigour

Maxstim Cynosa

Cynosa has been developed to impact germination, strengthen crops and help protect them against fungal induced stresses. It is a perfect companion product to use alongside Maxstim's other biostimulants to support crop development and growth throughout the plant's life cycle. **Cynosa** combines available orthosilicic acid with specific bioflavonoids to stimulate the plants metabolic processes. **Cynosa**, used in conjunction with Maxstim biostimulants, is supporting the plant's natural defences against these otherwise difficult to control stressors.



When Cynosa is used in conjunction with Maxstim Turf, crops have shown:

- Significantly higher yields
- Better resistance to disease & abiotic stress
- Stronger leaf and stem structure
- More homogeneous germination

What Makes Maxstim Unique?

Why Maxstim's flavonoids make the difference.

Maxstim has spent years refining its biostimulant formulations to maximise the impact of flavonoids using our proprietary Amphenox™ technology. This breakthrough delivers secondary metabolites and bioactive flavonoids to support crops through every challenge, from heatwaves to tight harvest windows.

Flavonoids play an important role in plant physiology, they are known for their antioxidant, anti-inflammatory, and protective properties, they play a vital role in plant health by helping crops respond to stress, fight disease and grow stronger. There are over 8000 different polyphenols and more than half of those are flavonoids. Flavonoids are responsible for generating colour in flowers, signalling throughout the plant, initiating defence mechanisms, chlorophyll production and help drive some key metabolic processes.

In nature, flavonoids help plants:

- ✓ Protect against UV radiation
- ✓ Defend against pests and pathogens
- ✓ Attract pollinators and aid reproduction
- ✓ Stimulate nitrogen fixation
- ✓ Manage oxidative stress from heat, drought, or pollution

How do flavonoids work in plants?

Under stress, plants produce reactive oxygen species (ROS) that can damage cells. Flavonoids act as antioxidants, neutralising these harmful molecules and helping plants recover faster and grow stronger.

They also:

- ✓ Regulate plant hormones like auxin and cytokinins, balancing growth
- ✓ Enhance photosynthesis and chlorophyll production
- ✓ Stimulate root development and nutrient uptake
- ✓ Influence gene expression for stress tolerance

“

Over a decade of research led us to a breakthrough — harnessing flavonoids to unlock natural stress tolerance. Maxstim's Amphenox™ technology gives plants the opportunity to thrive.

Amphenox

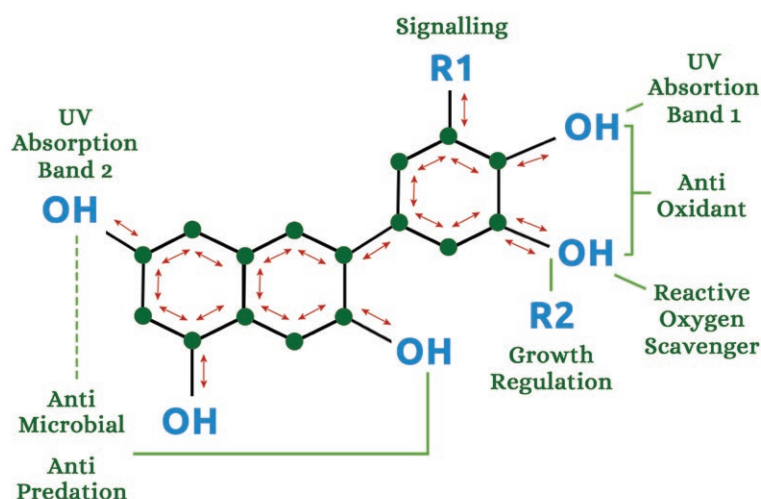
Research & Development

powered by
Amphenox™

Maxstim has developed production techniques that create abundant bioactive compounds:

- ✓ Bioflavonoids
- ✓ Glycosides
- ✓ Polyphenols
- ✓ Antioxidants

Bioflavonoid chemical structure



Amphenox bioflavonoids are highly bioactive molecules.

They influence:

- | | | |
|------------------|----------------------|----------------------|
| ✓ Defence | ✓ Stress management | ✓ Protein metabolism |
| ✓ Mechanisms | ✓ Cell growth | ✓ Plant growth |
| ✓ Abiotic stress | ✓ Hormone signalling | |

RNA Sequencing enables us to identify the key metabolic pathways that Amphenox influences.

Maxstim Features & Benefits

The table below summarises **Maxstim's** key product features and benefits, explaining how each one supports crop performance, grower confidence, operational efficiency, sustainability, and improved returns across a range of farming applications.

FEATURES	BENEFITS
Scientifically formulated biostimulants	Improve plant health, vigour and resilience, leading to higher yields and better-quality crops.
Complex formulation	Supplies bioactives and micronutrients at key growth stages, enhancing stress management and crop development.
Maxstim contains bioflavonoids	Highly bioactive, creating synergistic response in the plant. Maximises crop potential.
Proven in independent and on-farm trials	Gives growers confidence in performance; reduces risk when adopting new products.
Maxstim has excellent testimonials	Trusted and recommended by farmers
Tailored solutions for multiple crop types	Optimises results for potatoes, onions, carrots, and other high-value crops.
Compatible with existing farm practices	Easy to integrate into current fertiliser/irrigation programmes; no extra equipment needed.
Maxstim products are in liquid form	Easily tank mixable and compatible with other inputs.
Increases chlorophyll production	Increases glucose and energy production in the plant for faster growth and bigger yields.
Stimulates root development and stress tolerance	Crops establish faster, cope better with drought, pests, and disease pressures.
Enhances nutrient uptake	Better use of existing fertilisers = lower costs and reduced environmental impact.
Enhances water uptake	Reduces cost of irrigation and mitigates against drought.
Environmentally sustainable inputs	Supports growers' sustainability goals and compliance with environmental regulations.
Technical support and agronomic advice included	Growers have expert guidance to maximise performance and ROI.
3 year shelf life	Reduces risk of wasting stock
Loaded with secondary metabolites	Supplements the required NPK with vital micronutrients promoting healthy growth
Bioflavonoids in Maxstim act as antioxidants	Antioxidants activate heat stress defence mechanisms.

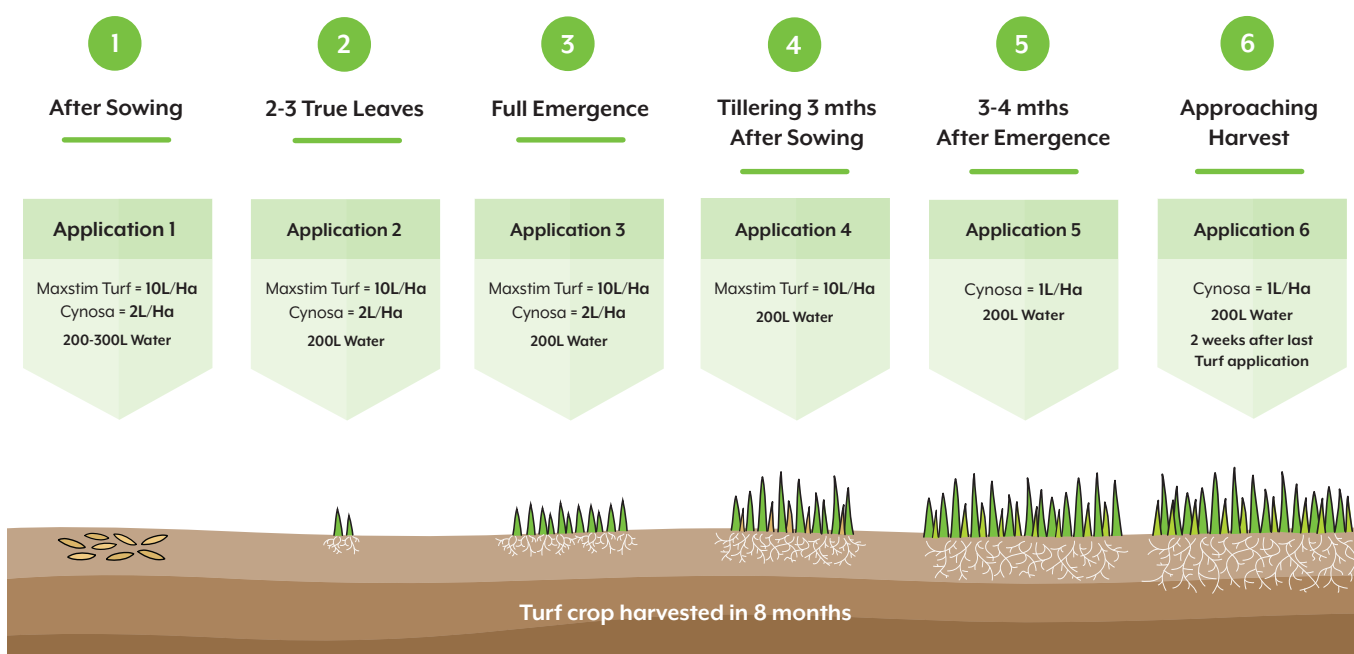
Insight

Growing Turf and Maxstim Advanced Treatments

Where do Maxstim advanced treatments fit into the process of growing turf?

Maxstim products help you save money, use less fertiliser, reduce waste and get to harvest quicker while maintaining good quality turf.

This is how Maxstim fits into your production process.



Advantages observed growing turf using Maxstim:

- ✓ Observable improvement in germination and faster emerging crops
- ✓ Greater root density and improved turf sod strength
- ✓ Robust leaf structure with vibrant green appearance and no signs of abiotic or biotic stress
- ✓ Better utilisation of nitrogen fertiliser inputs leading to a 20% reduction in use
- ✓ Turf was grown to a harvestable condition in 8 mths enabling the production of a 2nd crop of turf

Insight

Maxstim Delivers Improved Profit Margins for Turf Growers

The differences and improvements seen when using Maxstim biostimulants

Our six application process provided the following great results:



After Sowing

APPLICATION 1

Maxstim For Turf = 10L/Ha
Maxstim Cynosa™ = 2L/Ha

- There was a marked improvement in germination providing a homogenous establishment of the plants
- The crops were emerging faster
- The plants had a far greater root mass, providing a clear increase in fibrous roots for the plant to use
- Leaf numbers from initial first leaf emergence were faster to appear and therefore the plant had both more roots and leaves in a shorter time helping advance the physical structure.



2-3 True Leaves

APPLICATION 2

Maxstim For Turf = 10L/Ha
Maxstim Cynosa™ = 2L/Ha

- Further increases in root density and leaf numbers
- The plants were able to maintain growth and development at a faster rate
- The plant leaf structure was more robust, providing better opportunity for photosynthesis to take place
- The plants started to tiller faster, providing a greater crop density



Full Emergence

APPLICATION 3

Maxstim For Turf = 10L/Ha
Maxstim Cynosa™ = 2L/Ha

- Better utilisation of fertiliser inputs. Reduced amounts provided frequently in combination with the Maxstim gave a faster and improved use of the inputs to provide better plant growth
- Improved tillering and root development
- Crop was now providing full soil cover, the turf sward was well established
- Leaf number and leaf area production was increasing considerably
- There were no abiotic stress pressures seen in the crops



Tillering 3mths After Sowing

APPLICATION 4

Maxstim For Turf = 10L/Ha

- A continuation for all the attributes for the third application
- The crop was now providing a strong sward
- Root density and strength was above average for the age of the crop
- The crop provided a green vibrant appearance with no abiotic or biotic stresses visible



3-4 mths After Emergence

APPLICATION 5

Maxstim Cynosa™ = 1L/Ha

- Cynosa was applied to maintain growth and provide an increase in the utilisation of the liquid feeds and trace elements
- The plants remained green and vibrant with better leaf structure and rigidity



Approaching Harvest

APPLICATION 6

Maxstim Cynosa™ = 1L/Ha

- Cynosa was applied a second time to further maintain growth and provide an increase in the utilisation of the liquid feeds and trace elements
- The plants remained green and vibrant with better leaf structure and rigidity

Harvest achieved in 8 months

Advantages observed growing turf using Maxstim:

- ✓ Observable improvement in germination and faster emerging crops
- ✓ Greater root density and improved turf sod strength
- ✓ Robust leaf structure with vibrant green appearance and no signs of abiotic or biotic stress
- ✓ Better utilisation of nitrogen fertiliser inputs leading to a 20% reduction in use
- ✓ Turf was grown to a harvestable condition in 8 mths enabling the production of a 2nd crop of turf

With the increasing costs of inputs and production, we would love to show you how you can **increase your profits with the use of Maxstim biostimulants.**

Insight

Turf Growing



What would you do with a quarter of a million pounds?

£250,000 extra margin for **every 100 hectares of turf grown**. That's what Tim Cannon has been able to achieve using Maxstim advanced treatments.

It has taken years of research and working with some of the most prestigious sports venues in the UK and Europe to create the synergistic response required to enable turfgrass to thrive.



Tim Cannon, **Senior Agronomist**

After nearly 40 years of growing turf Tim has tested numerous inputs but his discovery of Maxstim he describes as **'ground-breaking'** and revolutionised how he was able to manage the speed, cost and consistency of growing turf, without compromising on the quality. He was so impressed that he asked to join the company. He now has a key role in our specialist team to aid in the development of sustainable agricultural solutions.

Growing turf on a large commercial scale has huge challenges and turf growers need all the help they can get to ensure they have the correct quantity and quality of harvestable turf every month.

Products used to achieve outstanding turf growth



Tim used two products Maxstim Turf and Cynosa™

Turf is a complex biostimulant with a wide range of bioactive components including our unique bioflavonoids and polyphenols, creating better root development and early growth.

Cynosa™ contains ortho silicic acid enabling plants to assimilate silicon to strengthen plant structures and increase resistance to disease.

Advantages observed with Maxstim:

- ✓ Observable improvement in germination and faster emerging crops
- ✓ Greater root density and improved turf sod strength
- ✓ Robust leaf structure with vibrant green appearance and no signs of abiotic or biotic stress
- ✓ Better utilisation of nitrogen fertiliser inputs leading to a 20% reduction in use
- ✓ Turf was grown to a harvestable condition in 8 months which enabled the production of a second crop of turf

“

**£250,000
extra profit for
every 100 hectares
grown**

With the increasing costs of inputs and production, we would love to show you how you can **increase your profits.**



Insight

Turf & Root Development Claim

A major benefit of using Maxstim products is significant root mass increase.

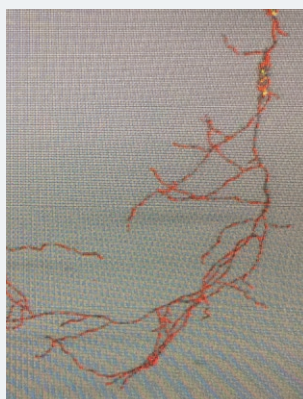
Better root development has a big impact on the plants ability to seek nutrients, moisture and withstand abiotic stress.

We are not just looking for primary root development to improve anchorage. We want to fundamentally change the plant's root architecture by promoting the initiation of a larger number of new white roots significantly increasing the total root surface area.

Not only does this give better access to all the key inputs but will greatly improve the interaction with the soil microbiome. Changing the way a plant develops its root system can fundamentally affect the whole rhizosphere.



Untreated - Rye Grass



Treated - Rye Grass

How Maxstim affects root development

Maxstim bioactive components greatly influences root architecture by promoting lateral growth. This has been measured quantitatively by our research team, using fractal analysis, where significant root length, number of tips and the number of forks present were significantly increased compared to untreated plants.

The same significant improvements can be observed in a range of plants, from those used in amenities and in crops, from numerous field trials:

Where	What	Observations
Le Golf National, France	Turf	After 9 weeks the average root increase throughout the course was 36%
Dunmurry Golf Club	Turf	More root growth with no sign of stress or disease
France Galop, Chantilly Race Course	Turf	After two treatments there was significant new white root development
SIS Pitches UAE	Turf	Significant root increase in only 21 days

Stronger root development after just two applications

After just two applications Maxstim delivered a clear increase in root mass, supporting stronger turf and improved stress resilience.



The benefits of improved root development are:

- ✓ Superior overall plant health
- ✓ Improved nutrient use efficiency
- ✓ Better resistance to stress and disease
- ✓ More foliage
- ✓ Increased crop yield

“

*Maxstim provides
a significant increase
in root mass*

Maxstim advanced treatments improve root development for a large variety of plants, encouraging quick development of new and denser roots and improving plant health.

For more information on how you
can incorporate Maxstim advanced
treatments into your turf growing
programme please call:

Tel: +44 (0)1252 279 935

Email: customer.services@maxstim.com

www.maxstim.com

MaxstimTM

MaxstimTM is a trademark of Maxstim Ltd.

Meet the Team:

