



What is Turf shield™?

Turf shield is an advanced formulation technology developed by Bayer Environmental Science that positively affects turf physiology. It helps turf-grass to withstand heat and high light intensity.

How does Turf shield work?

Turf shield protects photo-systems in chloroplasts. Radiation energy levels from sunlight are higher than chloroplasts actually need to convert light energy and fix carbon dioxide or utilise carbohydrate reserves by photorespiration. Excess radiation levels contribute to turf decline. Turf shield filters damaging wavelengths of light to reduce intensity of electromagnetic radiation, keeping chloroplast thylakoid membranes healthy and intact.

Does Turf shield work proactively?

Yes. Photosynthesis is enhanced if the turf is treated preventatively before the onset of leaf stress. This also allows for chlorophyll levels to be maintained, carbohydrate reserves to be built up and for root systems to become strengthened.

How does this technology help the plant?

Excess electromagnetic radiation must be managed by the plant. High summer temperatures contribute to the accumulation of reactive oxygen species in the plant; driven by heat, drought, and ultraviolet (UV) light. UV light in the UVB region of the spectrum can inactivate photosynthesis (a phenomenon known as photo-inhibition), resulting in a breakdown of the reactive D1 chloroplast thylakoid protein.

Turf shield formulation technology filters the ultraviolet portion of incoming solar radiation, reducing damage to essential plant macromolecules, such as proteins, lipids, and DNA. Healthy chloroplasts and the thylakoid membranes containing the photo-systems are maintained intact by the use of fungicides (such as Chipco Signature®) containing Turf shield formulation technology. By filtering the photosynthetic active radiation the plant can conserve stored carbohydrates and avoid production of energy through photorespiration.

What does turf treated with Turf shield look like?

Although you don't see it, below the surface fungicides containing Turf shield target roots by controlling diseases, leading to increased root mass and a stronger base for the plant to grow. Above the surface, this concept results in robust, lush top-growth. Fungicides containing Turf shield are proven to produce greener turf for a better-looking course, in addition to its improved health and vigour.

Where can I find Turf shield?

One of the Bayer fungicides you already know and trust contains Turf shield: Chipco Signature. Bayer fungicides containing Turf shield protect the turf against stress and improve the quality and vitality of the plant. Fungicides with Turf shield technology also improve the robustness of the leaf blades after cutting, and prevent the onset of disease.

What are the benefits to me?

A healthier, greener, stress and disease-free course that is always in top condition for golfers.



Comparison of untreated (left) and treated (right) blades of grass.



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Distributor Information



(WHY THE GRASS IS ALWAYS GREENER ON THE BAYER SIDE)