

XTRON[®]

700WG HERBICIDE



**DON'T JUST MANAGE POA,
ELIMINATE IT!**

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XTRON® 700WG Herbicide from Arysta Life Sciences is an innovative new herbicide that is a game changer in the fight against wintergrass (*Poa annua*) in a range of warm and cool season turf species. Containing 700g/kg of the new active ingredient amicarbazone, **XTRON® 700WG Herbicide** provides a new mode of action and class leading performance in the control of *Poa annua*.

XTRON® 700WG Herbicide at a glance

Active Ingredient	700g/kg amicarbazone
Mode of Action	Group C
Formulation	Water Dispersible Granule
Activity Mechanism	Contact
Application Rate	170 – 300g / Ha
Pack Size	500g

Key Benefits of XTRON® 700WG Herbicide

- ✓ New active ingredient for turf managers in Australia
- ✓ A unique mode of action in Poa management
- ✓ Highly dispersive granule formulation for ease of use
- ✓ Low use rates of 170 – 300g per hectare
- ✓ Reliable control of Poa even at advanced life stages
- ✓ Broad spectrum of turf safety including various warm and cool season varieties

A New Active Ingredient for Turf

Amicarbazone, the active ingredient in **XTRON® 700WG Herbicide** is a new active ingredient for Australian turf managers. It is a member of the Triazololinone chemical family and is classed under HRAC Group C1, meaning it functions as a herbicide through inhibition of photosynthesis at photosystem II.

Amicarbazone works on contact with the plant and is absorbed through both foliage and roots, causing discolouration of Poa between two and three weeks after application, and browning of the plant tissue after roughly four weeks. The APVMA classifies amicarbazone as possessing low oral, dermal and inhalational toxicity, with slight, transient eye irritation, but no skin irritation.

Product	Active Ingredient	Mode of Action Grouping
XTRON® 700WG Herbicide	700g/kg amicarbazone	C1
Monument Liquid Turf Herbicide¹	100g/L trifloxysulfuron sodium	B
Tribute Selective Turf Herbicide²	22.5g/L foramsulfuron	B
Pronamide Selective Herbicide	500g/L propyzamide	D

¹ Registered trademark of Syngenta Participations Ag ² Registered trademark of Bayer S.A.S

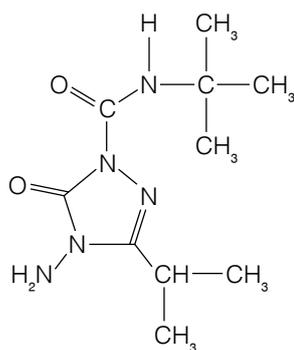


Figure 1.
Molecular structure of amicarbazone

While new to the Australian turf industry, amicarbazone has been used with great success in other turf markets globally including the United States, Europe and South Africa, where it has established itself as a reliable and effective method of controlling *Poa annua*. In addition to its use as a Poa control herbicide, in other countries amicarbazone is labelled for the control of an array of broadleaf weeds including bittercress, chickweed, cudweed, radish, speedwell and spurge.

Performance of XTRON® 700WG Herbicide

Unlike many other active ingredients available in the Australian market, amicarbazone doesn't just suppress Poa, it eliminates it. Evidence of **XTRON® 700WG Herbicide** working is much easier to see than with some other herbicide options, within 21 to 30 days Poa will typically be gone, allowing desirable turfgrasses to cover the bare patches. During efficacy studies it was observed that some

biotypes or varieties of *Poa annua* exhibited less susceptibility to treatments than others, though this was typically <5% of the *Poa* population in the treated area.



Figure 1. 21 days after first application at 300g / Ha; some discolouration and wilting of *Poa*.



Figure 2. 34 days after first application and 13 days after second application at 300g / Ha, obvious signs of full *Poa* kill, ryegrass reseeded at 200kg / Ha.



Figure 3. 54 days after first application and 21 days after second application, ryegrass germinating and filling *Poa* kill zones.

Field study results demonstrate that **XTRON® 700WG Herbicide** performs as a minimum equally to other industry standards in most situations, and on many occasions demonstrated its ability to outperform alternative herbicides in the control of *Poa annua*. The below studies were undertaken during the development of **XTRON® 700WG Herbicide** and are summarised from fully replicated trials.

Performance of XTRON® 700WG Herbicide at Royal Sydney Golf Club

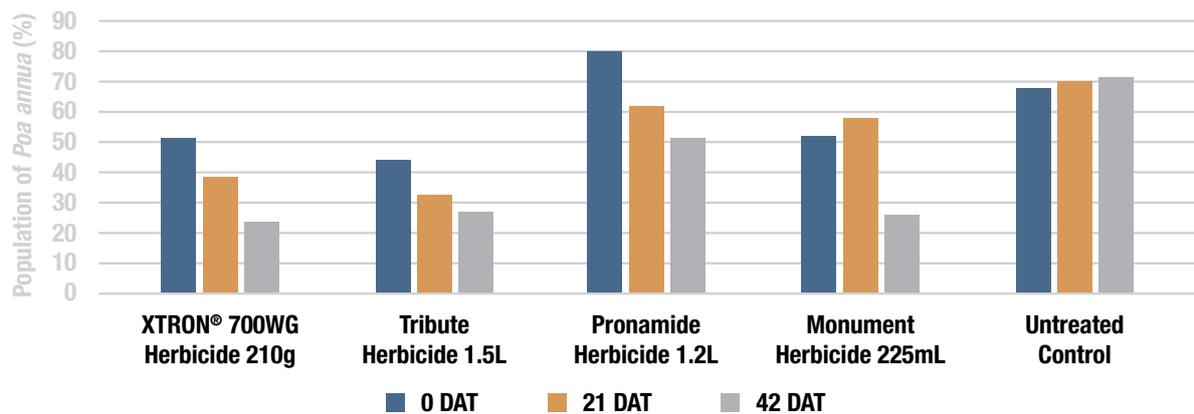


Figure 4. Efficacy study of XTRON® 700WG Herbicide on *Poa annua*, trial conducted at Royal Sydney Golf Club June 2014.

Performance of XTRON® 700WG Herbicide at The Australian Golf Club

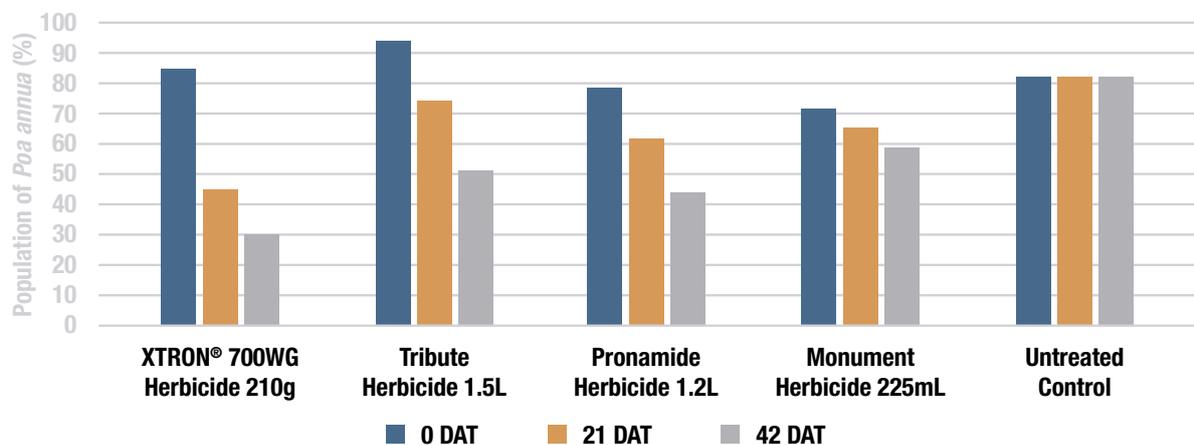


Figure 5. Efficacy study of XTRON® 700WG Herbicide on *Poa annua*, trial conducted at The Australian Golf Club June 2014.



Turf Safety with XTRON® 700WG Herbicide

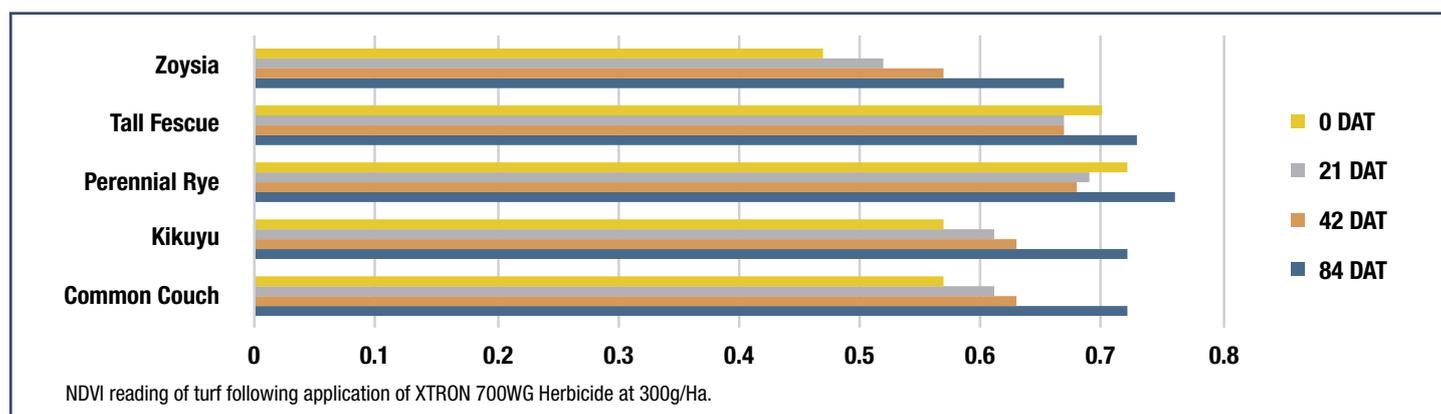
Labelled for use at 170 – 300g per hectare, **XTRON® 700WG Herbicide** possesses reliable safety across a broad rate range depending on the host species. Several turf safety studies were undertaken during the development of **XTRON® 700WG Herbicide**, the results of which demonstrate safety at label rates, with double label rates or overlapped spray areas exhibiting transient discoloration on some turf varieties.

XTRON® 700WG Herbicide is registered for use at two separate rate ranges;

170g – 300g / Ha: green couch, Kikuyu, Buffalo, seashore paspalum, zoysia, fine fescue, tall fescue and perennial ryegrass.

170g / Ha: Kentucky bluegrass.

The below graphics demonstrate results of safety studies measured using NDVI Turf Colour Meter set to a scale of 0.000 – 0.999 where 0.999 is lush green turf and 0.000 is dead turf.



Getting the most out of XTRON® 700WG Herbicide

Timing – early season applications work best, with consistent temperatures between 12 – 25°C.

Plant Health – ensure the root zone and foliage of the host turf are healthy and actively growing.

Mowing – avoid mowing a day after application to allow for full foliar uptake.

Soil Moisture – adequate soil moisture must be present at the time of application. If host turf is exhibiting signs of drought stress, do not apply until the desirable turf has recovered.

Soil pH – ideally at or below 7.4 as higher pH results in higher solubility and mobility of the active ingredient in the soil. In higher pH soil the risk of host turf injury is increased.

Reseeding – allow 7-days after the final application before reseeding into treated turf.

Poa Density – ideally don't apply to turf surfaces with a Poa population greater than 10% as temporary decrease in overall turf quality may result due to the rapid elimination of the weed.

Turf Discolouration – if discolouration of the desired turf is observed cease further applications until the turf has recovered.

Spray Accuracy – the use of a pattern indicator dye is recommended to improve application accuracy and avoid overlap. Overlap of spray may result in turf discolouration or injury.

Directions for Use*

Situation	Weed	Rate	Critical Comments
Established warm season turf; Couchgrass (<i>Cynodon dactylon</i>) – common and hybrid Kikuyu Grass (<i>Pennisetum clandestinum</i>) Buffalo Grass (<i>Stenotaphrum secundatum</i>) Zoysia (<i>Zoysia</i> spp.)	Wintergrass (<i>Poa annua</i>)	170g – 300g / Ha	Ensure product is applied as evenly as possible using a properly calibrated sprayer with a minimum water volume of 400L / Ha. Use a higher rate when weed infestations are high, when only 1 application is likely or when longer residual control is required. Use the lower rate when weed infestations are low. Reapply after 21-days if required.
Established cool season turf; Fine Fescue (<i>Festuca</i> spp.) Tall Fescue (<i>Festuca arundinacea</i>) Perennial Ryegrass (<i>Lolium perenne</i>)			Do not apply to populations of more than 10% <i>Poa annua</i> as temporary decrease in overall turf quality may result due to the rapid elimination of the weed.
Established cool season turf; Kentucky Bluegrass (<i>Poa pratensis</i>)		170g / Ha	The end user is advised to undertake a tolerance test to a small area before applying to the intended turfgrass area.

*See registered product label for full Directions for Use.

For more information about XTRON® 700WG Herbicide, contact your local Nuturf Territory Manager, call 1800 631 008 or visit www.nuturf.com.au