



HydroForce Ultra

Next Generation Soil Surfactant for Professional Turf

- > Unique molecular design
- > Unique performance characteristics
- > Curative & preventative control of LDS
- > Assists both root and leaf targeted fungicide performance
- > Improves root development



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SPECIALTY PRODUCTS

New Generation Soil Surfactant

HydroForce Ultra represents a surfactant advancement for managing localized dry spot in professional turf situations.

HydroForce Ultra is a new chemistry, with a unique molecular design, developed in partnership with one of the leading manufacturers of block co-polymer technology in the United States. The new molecular design, comprises of a block co-polymer with a modified structure to provide unique performance characteristics.

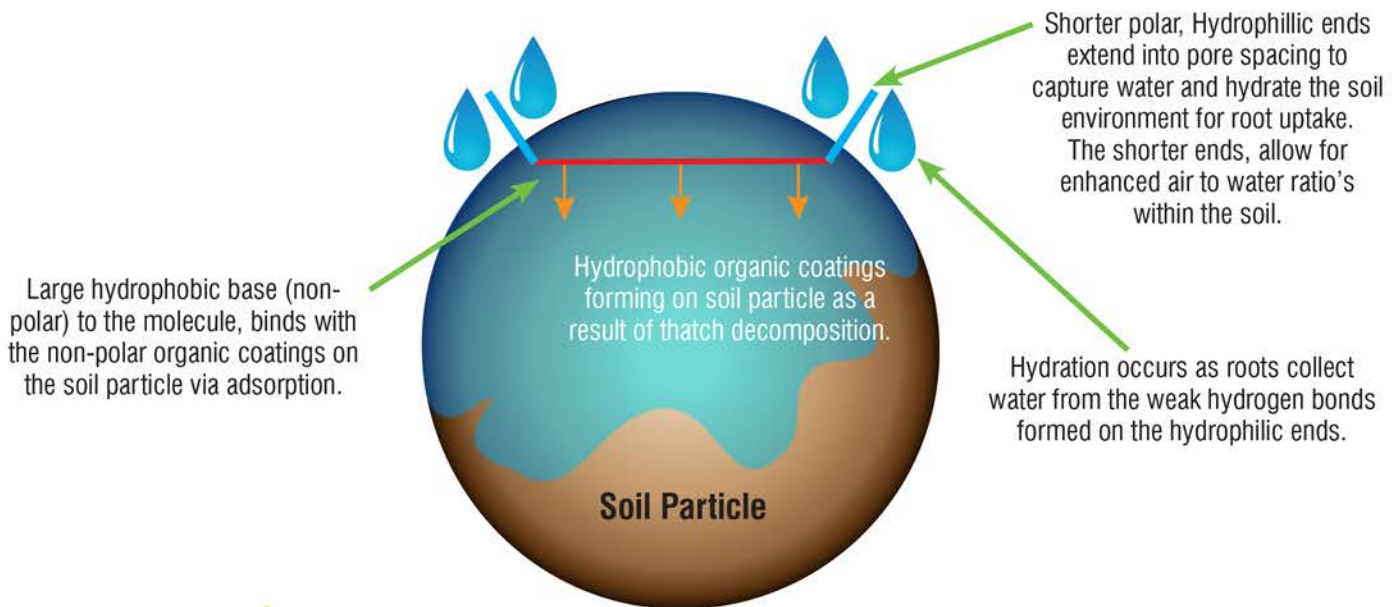
HydroForce Ultra is manufactured in the united states to the strictest standards. The product comes available in a 10L pack size and has been developed and is supported by Dr Stan Kostka, Dr Mike Fidanza and Dr Cale Bigalow from Rhizolutions LLC.

Key Benefits of HydroForce Ultra

- > Unique molecule, with a unique structure for maximising wettability and responsiveness to hydrophobic soil surfaces, whilst maximizing air to water ratio's for improved plant performance.
- > Provides both curative and preventative activity on localized dry spot.
- > Manufactured in the USA to the highest possible standards.
- > Extensively field tested, with excellent performance in both the USA and Australia. Performed well even in the toughest of conditions, proving effective where competitive products struggled.
- > US University research has shown that HydroForce Ultra can be used to enhance fungicidal performance and improve turf quality during tough summer conditions.
- > HydroForce Ultra is tank mix compatible with a range of products.
- > HydroForce Ultra has shown in Australian Field trials to enhance root development.
- > HydroForce Ultra provides at least equivalent performance to competitive products at significantly lower use rates.

The Uniqueness of the HydroForce Ultra Molecule

The molecule in HydroForce Ultra is a block co-polymer, with the structure and balance (defined in the illustration below) of the molecule modified to enhance adsorption to hydrophobic materials and to radically increase the wettability and responsiveness of treated surfaces to applied water, giving it unique performance characteristics.





HydroForce Ultra Research

1. Turf Quality Assessment Research:
 Summer months USA – May to September
 Purdue University Trial:
 Dr Cale Bigalow: 2018
 August Assessment Date Comparison



Competitor 1 – 19L/ha



HydroForce Ultra – 12.5L/ha



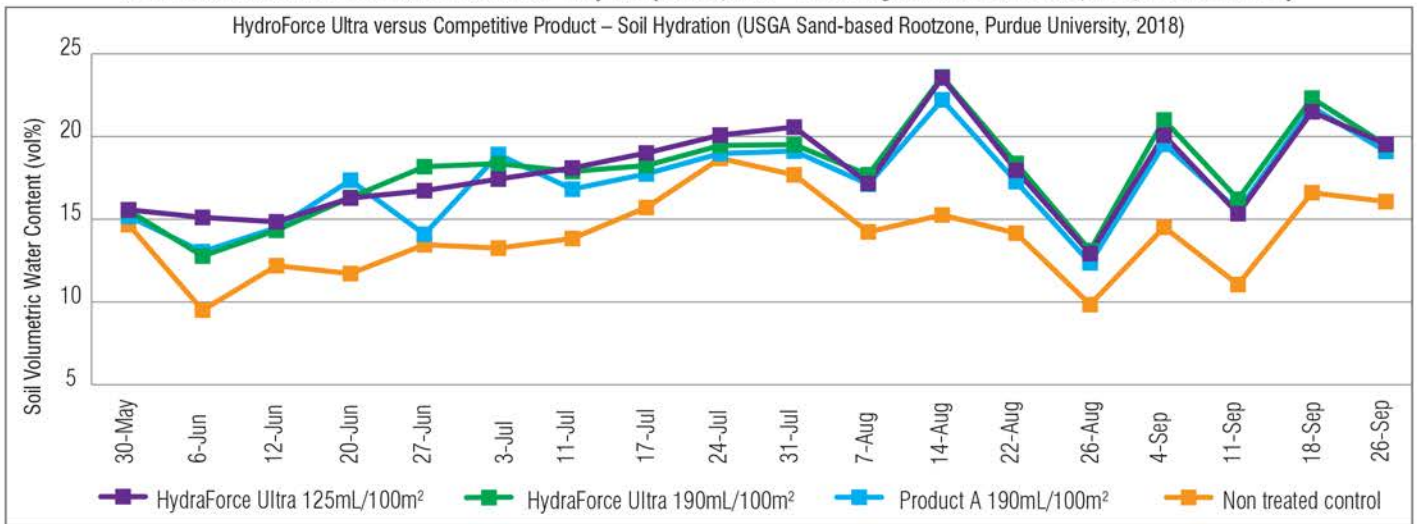
Competitor 2 – 16L/ha



Non-treated Turf

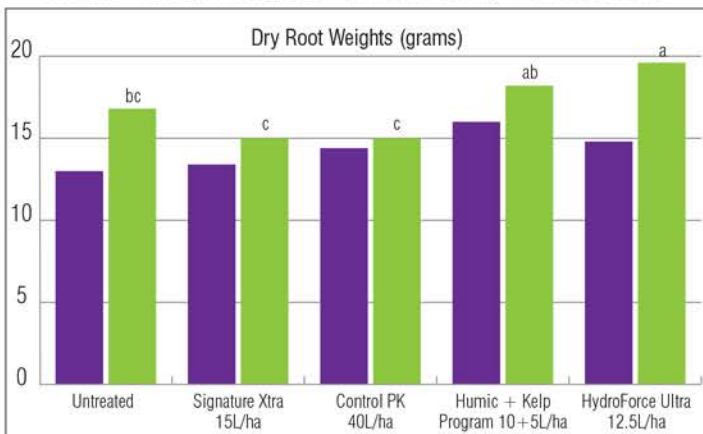
Result: HydroForce Ultra produced excellent playing conditions, extremely resilient turfgrass and high turf quality under severe stress.

2. Soil Volumetric Water Content % Research Trial – May to September, 2018 – Dr Cale Bigalow & Dr Stan Kostka, 2019, Purdue University



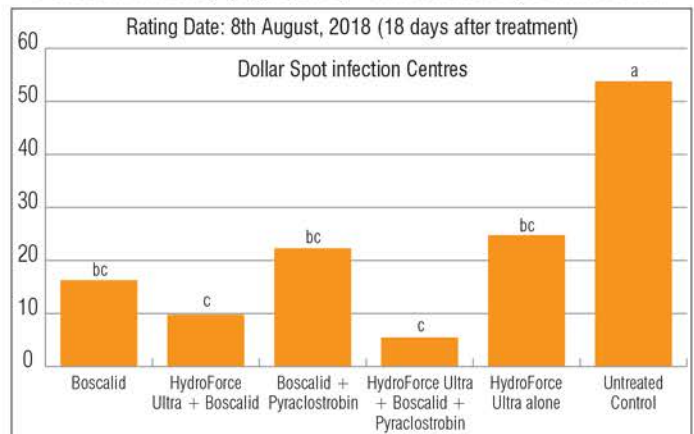
Result: HydroForce Ultra is effective at managing volumetric water content to target levels.

3. Root development & Plant Health Research Trial @ Oxley Bowling Club, Brisbane – January to April, 2020 – Trial conducted by G-Censeo Research



Result: HydroForce Ultra assists in improving root weights in Couch turf during stressful summer conditions. Product Applications applied 7/1/20, 18/2/20, 17/3/20. Dry Root weights taken on 5/3/2020 and 24/4/2020.

4. Improvement in Fungicidal Performance Research Trial – Penn State University (August, 2018) – Trial conducted by Dr Mike Fidanza



Result: HydroForce Ultra assists in improving disease control of foliar diseases by effectively reducing leaf wetness. Surfactant was removed from the leaf the night of the applications.





HydroForce Ultra – Application Details

Situation	Application Rate	Comments
Golf Greens and Fine Turf	<p>Monthly Program: 12.5 L/ha in 800 L of water every 30 days or 6.25 L/ha in 800 L of water every 15 days</p> <p>Curative: 12.5 to 19 L/ha in 800 L of water and repeat as needed</p>	Irrigate after application to move product into the root zone.
Fairways	6.25 L/ha in 800L of water every 30 days	Irrigate after application to move product into the root zone.
Sports Turf	6.25 to 12.5 L/ha in 800L of water every 30 days	Irrigate after application to move product into the root zone.

Fungicide Compatibility Guide

FRAC Group	Active Ingredient	Trade Name	Formulation	HydroForce Ultra Compatibility*
M3	Mancozeb	Fore	Liquid	Good, no issue, no settling.
M5	Chlorothalonil	Daconil, Dacogreen	Liquid	Good, no issue, no settling.
2	Iprodione	Chipco, Rovral, Voltar	Liquid	Good, no issue, no settling.
3	Propiconazole	Banner, Regiment	Liquid	Good, no issue, no settling.
4	Metalaxyl-M	Subdue, Solitaire	Liquid	Good, no issue, no settling.
7	Boscalid	TBC	Dry-WDG	Good, no issue, no settling.
11	Azoxystrobin	Heritage, Azo-Force	Liquid	Good, no issue, no settling.
12	Fludioxynil	Medallion	Liquid	Good, no issue, no settling.
14	PCNB	Terrachlor	Liquid	Good, no issue, no settling.
21	Cyazofomid	Segway	Liquid	Good, no issue, no settling.
28	Propamocarb	Banol	Liquid	Good, no issue, no settling.
29	Fluazinam	Compass	Liquid	Some separation and settlings. Needs good agitation.
22	Fosetyl-AI	Signature, Grenadier	Dry – WDG	Some separation and settlings. Needs good agitation.
33	Potassium Phosphite	Control PK	Liquid	Good, no issue, no settling.

*HF Ultra added to fungicide/water mix – visual results rated after 30 minutes. Data supplied by Rhizosolutions LLC.

Maximising performance

- > Shake well before each use.
- > For maximum performance, apply HydroForce Ultra at recommended rates followed by a light irrigation to move the product into the root zone.
- > Keep container closed when not in use.
- > Mix in spray tanks with water and agitation.
- > May require addition of a defoamer.

HydroForce™ is a trademark of Indigo Specialty Products Pty Ltd



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