TURF TRIAL INFORMATION

H2Pro® TriSmart

H2Pro TriSmart programme can reduce irrigation inputs by 40%.

STRI

SUMMARY

- Independent trial completed at STRI Australia, Brisbane.
- Completed summer 2017 on ultra-dwarf bermudagrass (TifEagle) test area constructed and maintained as a USGA golf green.
- Split plot randomised block design. With two irrigation treatments: 100% and 60% ET replacement.
- H2Pro TriSmart applied initially at 25L/ha followed by five applications at 10L/ha significantly ($P<0.05$) maintained high turf quality at reduced irrigation inputs providing a 40% water saving.
- The same H2Pro TriSmart programme significantly reduced the incidence of Dry patch formation over control plots.

METHODS

An independent summer wetting agent trial was conducted at STRI, Australia, Brisbane over the summer of 2017. An ultra-dwarf Bermudagrass (TifEagle) trial area constructed as USGA golf green following standard golf green maintenance was used. The trial was split into two irrigation treatments with 100% and 60% of ET returned to supply turf stress. Five wetting agent treatments and a control (untreated) were tested, with a H2Pro TriSmart programme consisting of 25L/ha followed by 5 applications at 10L/ha (total of 75L/ha applied), compared directly with a 'Competitor A' wetting agent applied at 19L/ha x 6 applications (total of 114L/ha applied). Standard assessments were made monthly; % localised Dry spot, turf quality, turf colour and volumetric moisture content at 60mm.

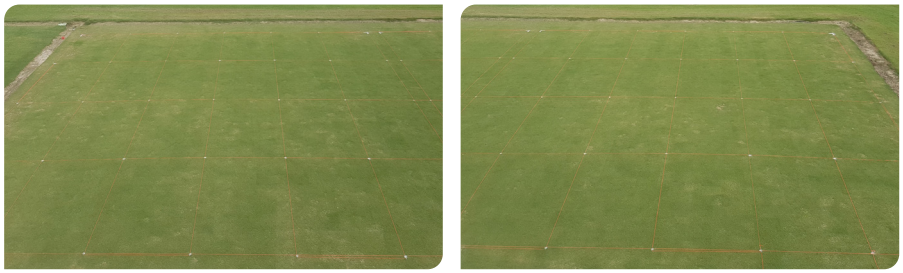

Image 1 - Trial area showing 100% ET on left, 60% ET on right .

RESULTS

All wetting agent programmes maintained significantly ($p<0.05$) better turf quality and colour than untreated control at both irrigation regimes. Localised Dry spot (LDS) pressure increased during the course of the trial to reach a mean greater than 50% of the control plots affected (Image 2). H2Pro TriSmart and 'Competitor A' reduced the incidence of Dry spot to less than 10% of the plot affected throughout the trial with no significant difference between them, however H2Pro TriSmart was applied at a total reduced rate for the season (75L/ha compared with 114L/ha).

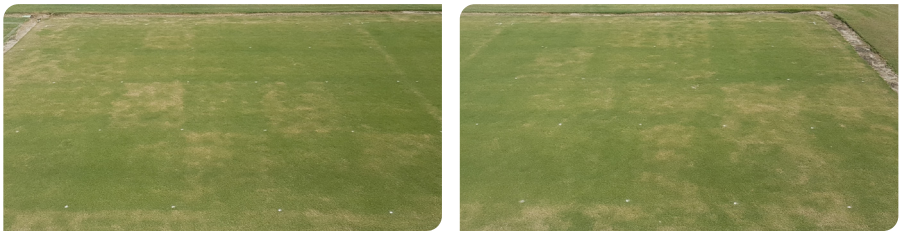

Image 2 - Trial area showing localised Dry spot and drought stress 100% ET on left, 60% ET on right .

WATER SAVING

H2Pro TriSmart receiving 60%ET replacement through irrigation displayed significantly greater mean turf quality on 8 assessment dates when compared with mean control plots receiving 100% ET returned through irrigation. This demonstrates a significant water saving of 40% that end-users on a TriSmart programme could benefit from alongside improved surface quality from significantly reduced localised Dry patch.

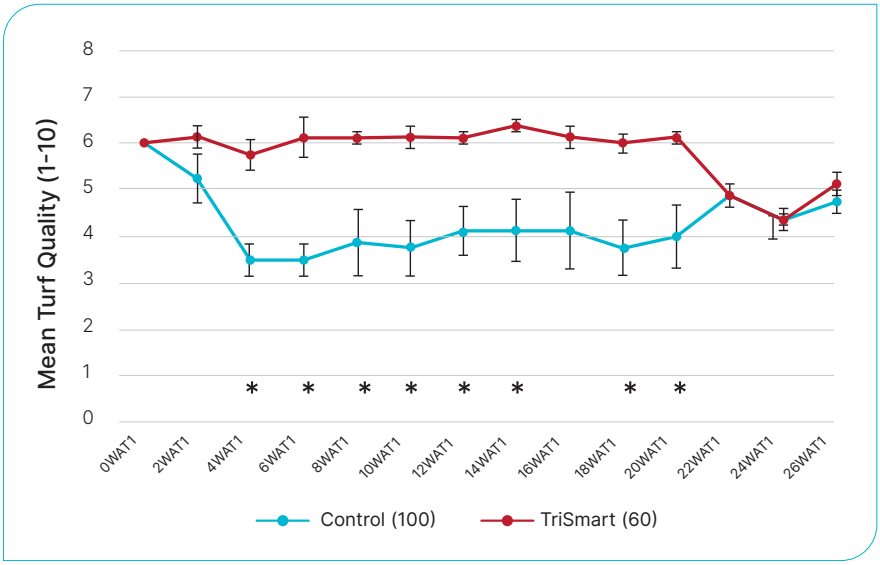

Figure 1. Mean turf quality comparing control plots with 100%ET returned irrigation regime with H2Pro TriSmart at 60%ET returned irrigation regime. Error bars illustrate standard error of the mean. Asterisks show dates when significant difference in data was present.

CONCLUSION

An independent trial at the STRI Australia, Brisbane has illustrated the value of utilising a wetting agent programme to significantly improve surface quality and colour and to reduce localised Dry spot. The choice of an H2Pro TriSmart programme could also make a product application saving over a recognised competitor brand of up to 39L/ha with no loss in surface performance. H2Pro TriSmart also maintained an improved surface quality with a 40% water saving over control plots, demonstrating water use efficiency from a wetting agent programme.