

TURF TRIAL INFORMATION

Vitalnova[®]
Blade

Vitalnova Blade significantly increases turf quality traits for young plants.



SUMMARY

- Independent glass house trial completed by Lagan Valley Scientific (Dr Deborah Cox)
- Two pot trials completed in different seasons using *Lolium perenne* and *Poa annua* in a 90:10 sand / soil mix.
- Vitalnova Blade applied once at 20L/ha in 500L water after establishment. Trial ran for 4 weeks prior to assessment. Assessments varied slightly from trial 1 to trial 2.
- Vitalnova Blade significantly ($P < 0.05$) increased chlorophyll content, root length and root mass over a 24-day period for *Poa annua* turf.
- Vitalnova Blade significantly ($P < 0.05$) increased weight of clippings, chlorophyll content, leaf blade thickness and root dry weight over a 30-day period for *Lolium perenne* turf.

METHODS

An independent glasshouse trial was conducted in two parts by Lagan Valley Scientific. The effect of a Vitalnova Blade application on turf quality traits of young *Poa annua* (Trial 1) and of young *Lolium perenne* (Trial 2) was examined as part of a larger trial examining effects on the soil microbiome. Fresh soil cores from a sports surface were mixed with sand to produce a 90:10 sand soil rootzone which was turfed with *Poa annua* (Trial 1) and seeded with *Lolium perenne* (Trial 2).

Pots were given time to establish and then Vitalnova Blade was applied once at 20L/ha in 500L water, controls received a water application. Vitalnova Blade is a carbohydrate-based sports turf biostimulant designed to increase turf rooting and stimulate the soil microbiome. All pots were maintained for three weeks and assessments made in week 4 (day 24 in Trial 1; day 30 in Trial 2).

Relevant assessments were: Clipping weight, chlorophyll content (SPAD 502 plus meter), root length and root mass, shoot width (Trial 2 only).

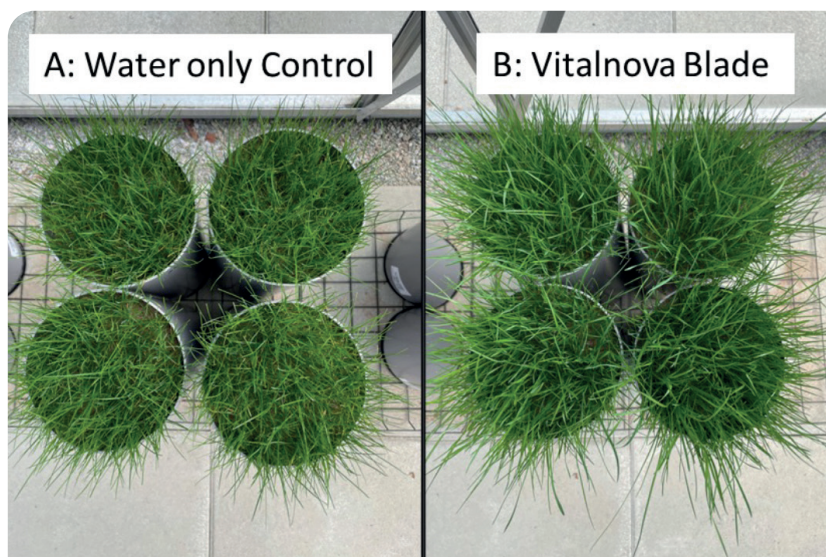


Image 1: Trial 2 *Lolium perenne* control pots vs Vitalnova Blade pots at day 7.

RESULTS

Pots treated with a single application of Vitalnova Blade showed more vigorous growth with a clear difference in density, clipping growth and leaf width when compared with the control (Image 1). Vitalnova Blade does have an NPK nutrient content (5-6.5-3.5), which was not added to the control pots but at 20L/ha this would deliver only very low levels of nutrition over 4 weeks (1.36kg N/ha, 1.77kg P₂O₅/ha, 0.95kg K₂O/ha).

The addition of Vitalnova Blade in both trials significantly ($P < 0.05$) increased a number of measured quality traits for turf grass (Figure 1a, b, c and Figure 2 a, b, c, d). Chlorophyll (measured using SPAD) and root mass significantly increased with an application of Vitalnova Blade for both grass species tested. In the *Lolium perenne* trial there was also a significant increase in clipping yield and leaf width (Figure 2), which is clearly seen in image 1.

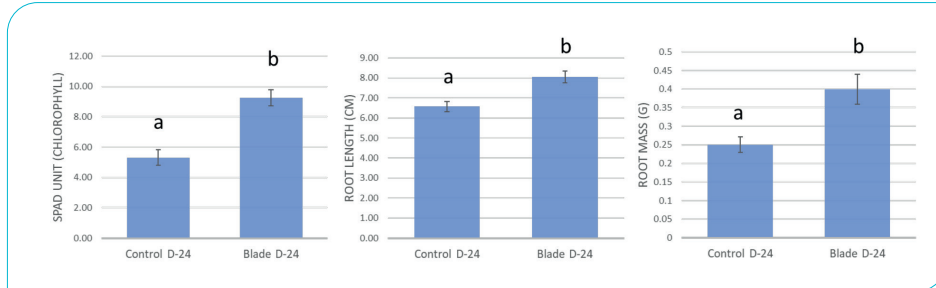


Figure 1a, b, c. Quality trait assessments for *Poa annua* trial. Error bars indicate standard error of the means. Different letters indicate significant difference between values.

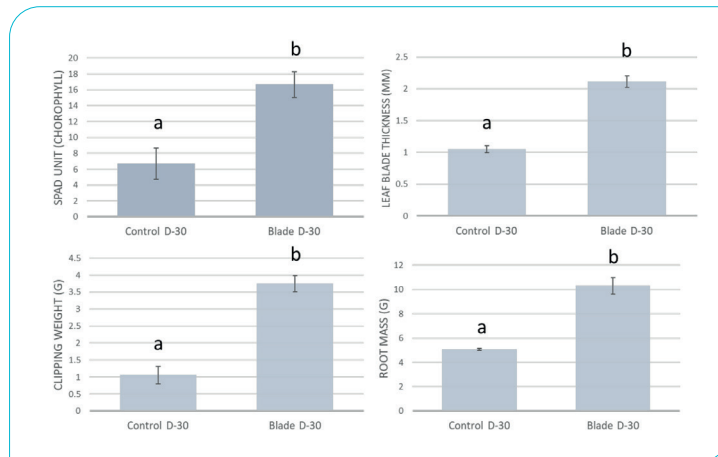


Figure 2a, b, c, d. Quality trait assessments for *Lolium perenne* trial. Error bars indicate standard error of the means. Different letters indicate significant difference between values.

CONCLUSION

An independent trial conducted by Lagan Valley Scientific clearly showed that a single application of Vitalnova Blade significantly increased a number of important quality traits (rooting, chlorophyll, leaf width) for young turf grass. These results demonstrate that the product is a perfect recommendation for establishing turf from seed or sod, or following a renovation period.