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Introduction
Commercial wetting agents make a lot of unsubstantiated claims in the marketplace. The majority of these have little by way of independent trial data to support these claims. We looked at seven commercially available soil wetters available in the Australian turf market.

Objective
To determine if claims made by marketed soil wetting agents had any validity. We also looked at incorporating plant elicitors into soil wetting agents lead to any reduction in disease incidence or improvements in quality. Volumetric moisture content, Turf quality, Surface hardness, and dollar spot severity were monitored.

Materials and Methods
A randomized complete block trial was established at a Group 1 golf course in Sydney on an *Agrostis* (var. A1/A4)/ *Poa annua* green maintained at 3mm height of cut. Organic matter levels in the top 0-2cm were 10.77%. The trial comprised of 9 treatments with 6 replicates being conducted from November 2022 to May 2023 (200 days). Plots were 1m² with monthly applications being applied at label rates unless stated otherwise.

Table 1. Commercial wetting agents trialled

Product	Active Ingredient	k	=
1 Tricure	100% Oxirane 2-methyl with oxirane	12L	
2 Hydroforce Ultra	90% Polyakylene glycols	13L	
3 Gilba SAB	100% EO-PO Block copolymer, APG	12.5L	
4 Propel	7.3% Di-sulfosuccinate and humic acid	10L	
5 Hydroforce Recovery	85% EO-PO block polymer and APG.	2L	
6 Untreated Control			
7 Hydorce Ultra	90% Polyalkylene glycols	6.25L	
8 H2O Maximizer	28.5% Alkylpolyglucoside blend	30L	
9 Hydrolink Rapid	40% blend non-ionic surfactants	5L	

Statistical Analysis- Data were subjected to an analysis of variance (ANOVA) using RStudio followed by multiple comparisons of means using Fisher's LSD test at the 0.05 probability level.
Figure 1. Distinct differences existed between the performances of the soil wetting agents in relation to dollar spot incidence.



Figure 2, 3 and 4. Significant differences existed in Turf Quality, Surface hardness, Volumetric moisture content and dollar spot infection centres after 200 days. The graphs below vs the untreated control. Means were separated using least significant difference (LSD).

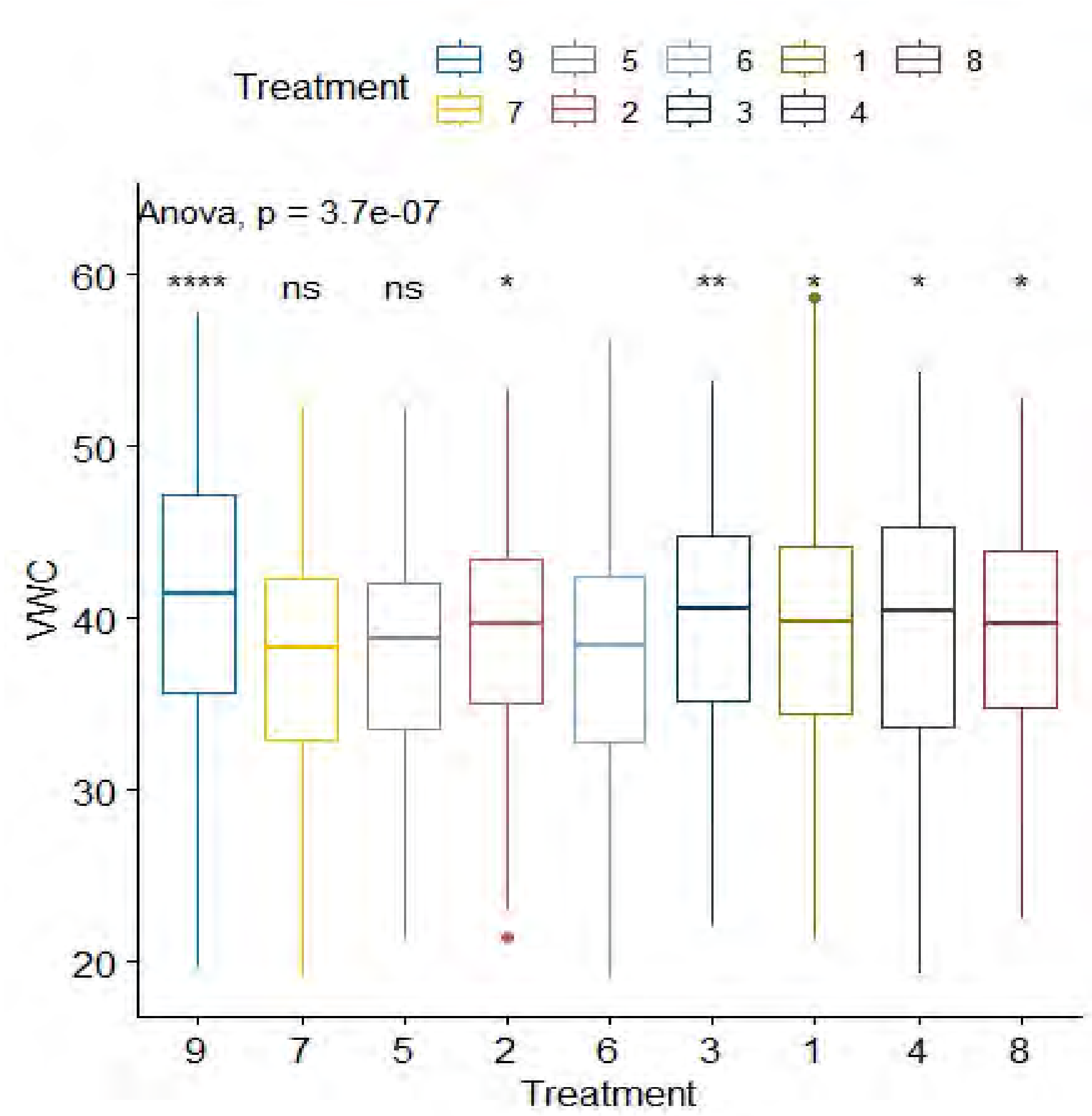
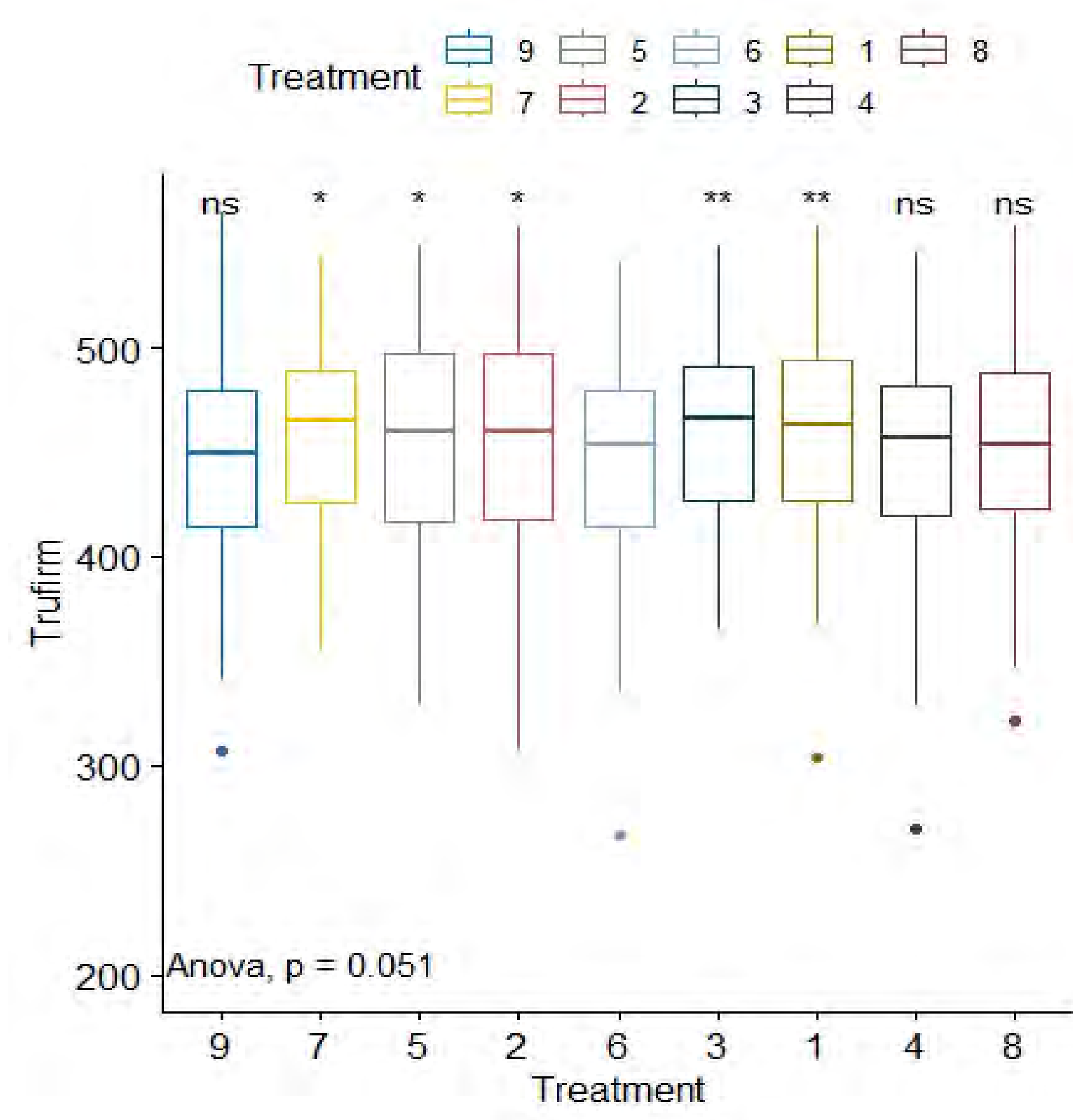
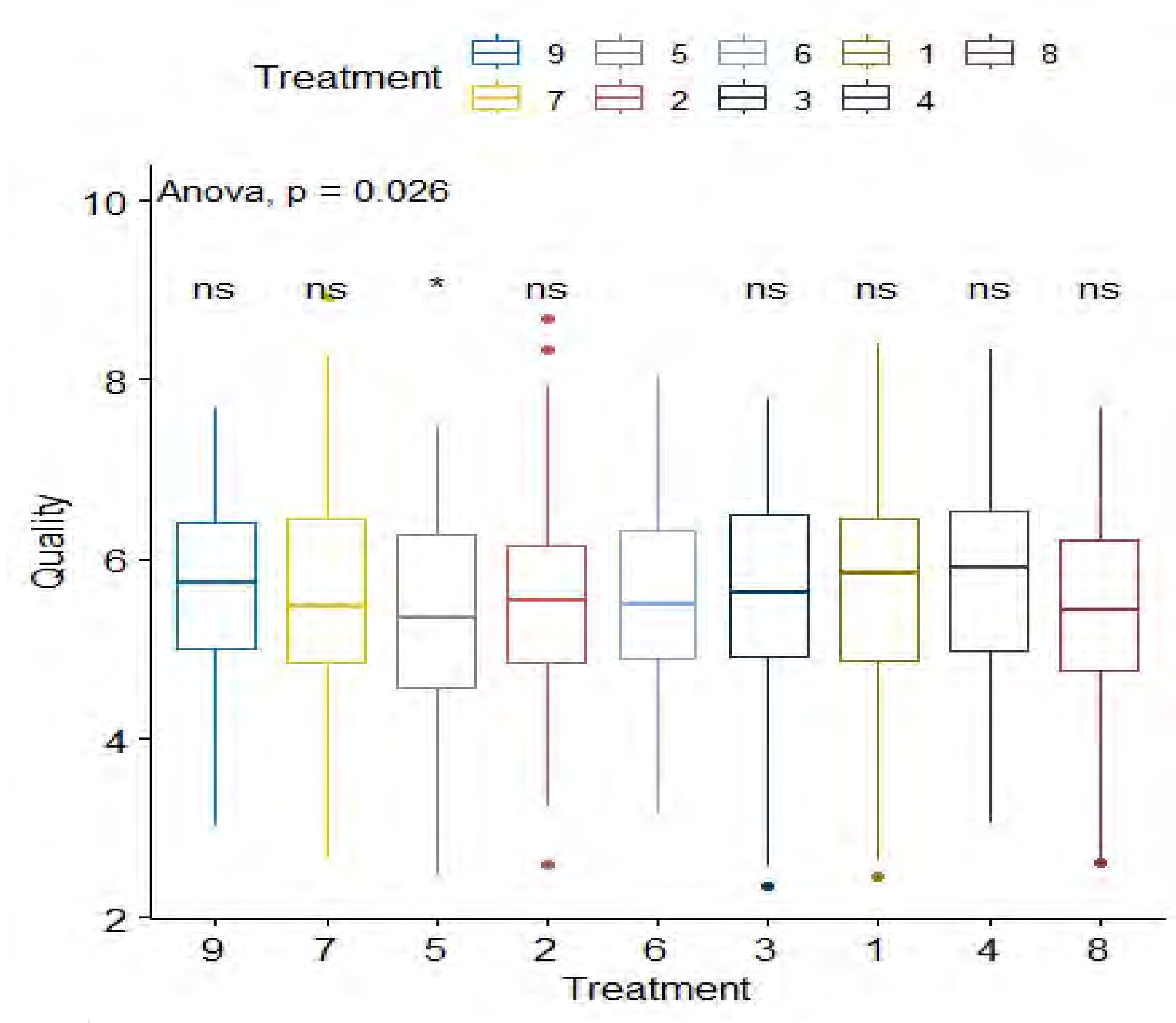
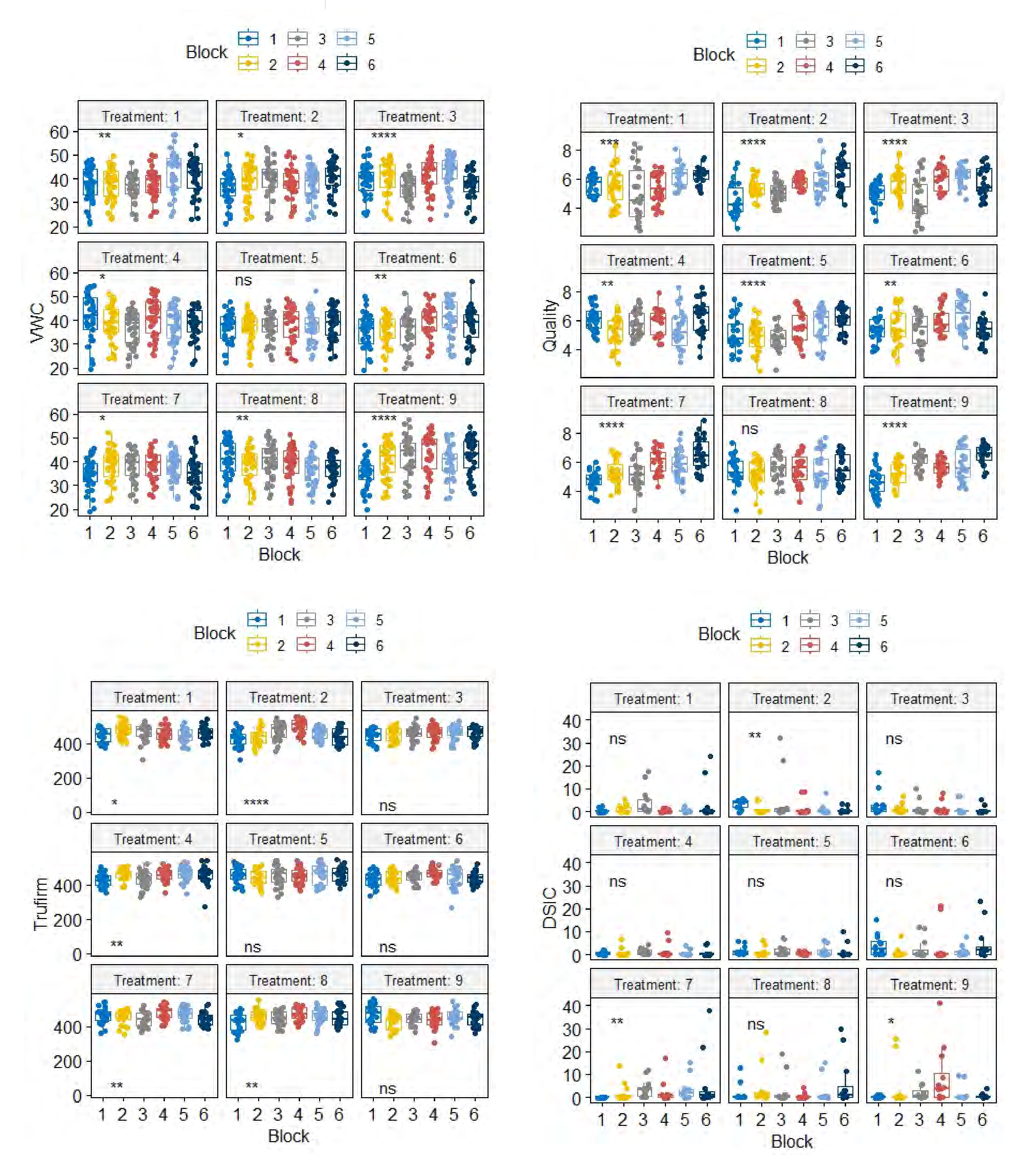


Figure 5, 6, 7 and 8. For VMC% Treatment 5 was the only one to give a non significant result over the blocks meaning it gave a highly consistent performance. For Turf quality only Treatment 8 gave consistent values over all the blocks. All other treatments showed significant variation. For the Trufirm readings Treatments 3, 5, 9 and the untreated control 6 showed no significant difference between the results gained by block. For dollar spot only Treatments 2, 7 and 9 showed any significant variations in Dollar spot over the blocks.



Results Turf Quality
Over the duration of the trial only Treatment 5 had a significantly lower quality than the control. There was no significant difference between any of the other treatments and the control.
Treatment 4 had a significantly higher turf quality than Treatment 5. There were only three dates where there were significant differences in turf quality.

Results Volumetric Moisture Content
Only Treatments 9 and 3 had significantly higher moisture contents than the control. Treatment 9 also had significantly high moisture contents than Treatments 5 and 7.

Results Surface Hardness
Only Treatments 4, 8 and 9 had no significant difference in surface hardness compared to the control.

Significant differences in Trufirm Readings were only seen on one date 29 days post first treatment.

Results Dollar Spot incidence
Treatments 3, 4, and 5 all had significantly less dollar spot infection centres than the control.

