

Figure 39: Ryegrass electrolyte leakage under ambient growing conditions for non-inoculated and inoculated plants.

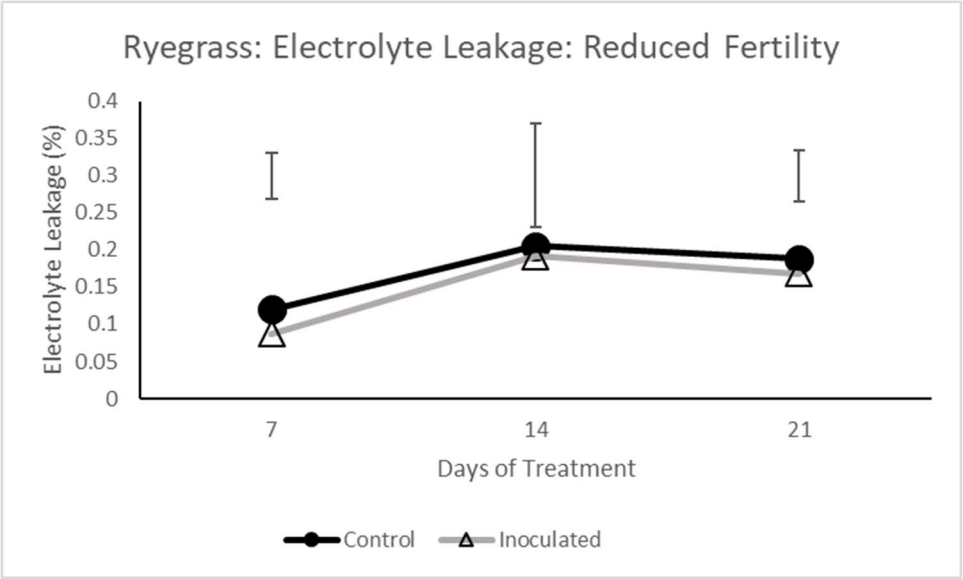


Figure 40: Ryegrass electrolyte leakage under reduced fertility growing conditions for non-inoculated and inoculated plants.

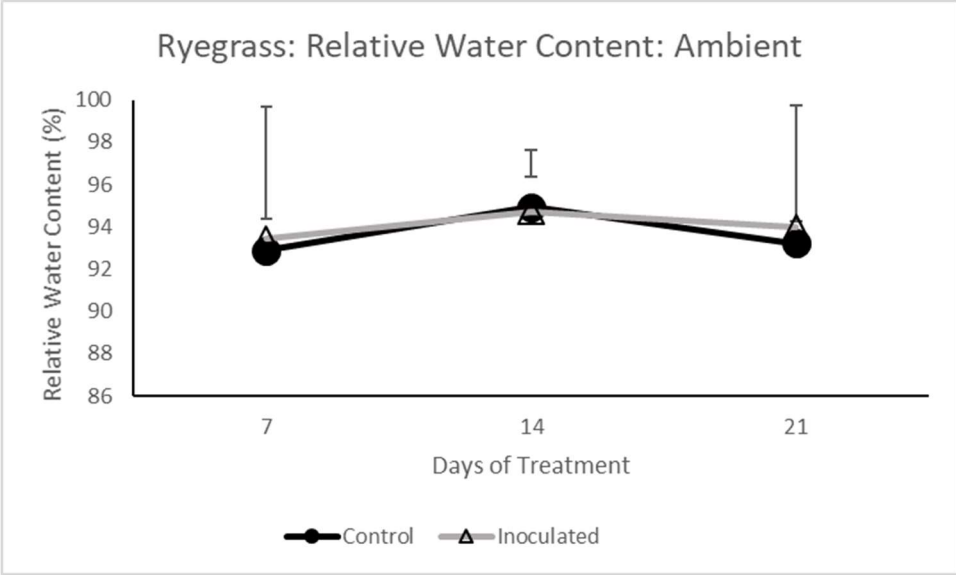


Figure 41: Ryegrass leaf relative water content under ambient growing conditions for non-inoculated and inoculated plants.

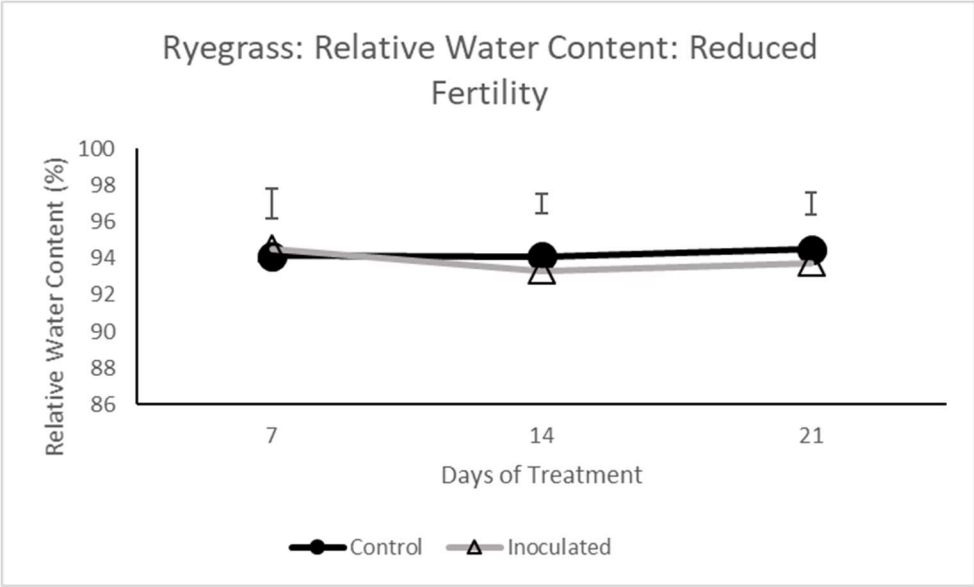


Figure 42: Ryegrass relative water content under reduced fertility growing conditions for non-inoculated and inoculated plants.

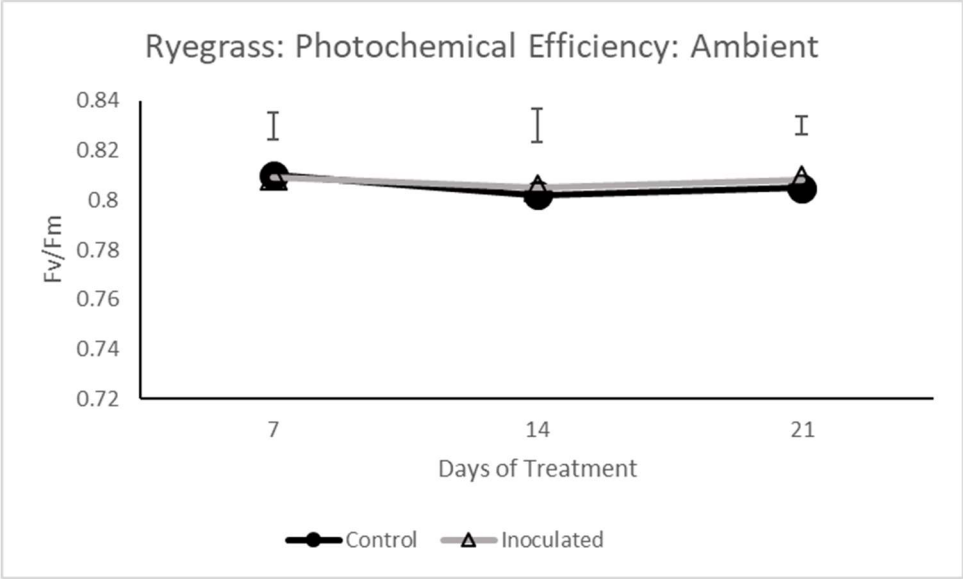


Figure 43: Ryegrass photochemical efficiency (Fv/Fm) under ambient growing conditions for non-inoculated and inoculated plants.

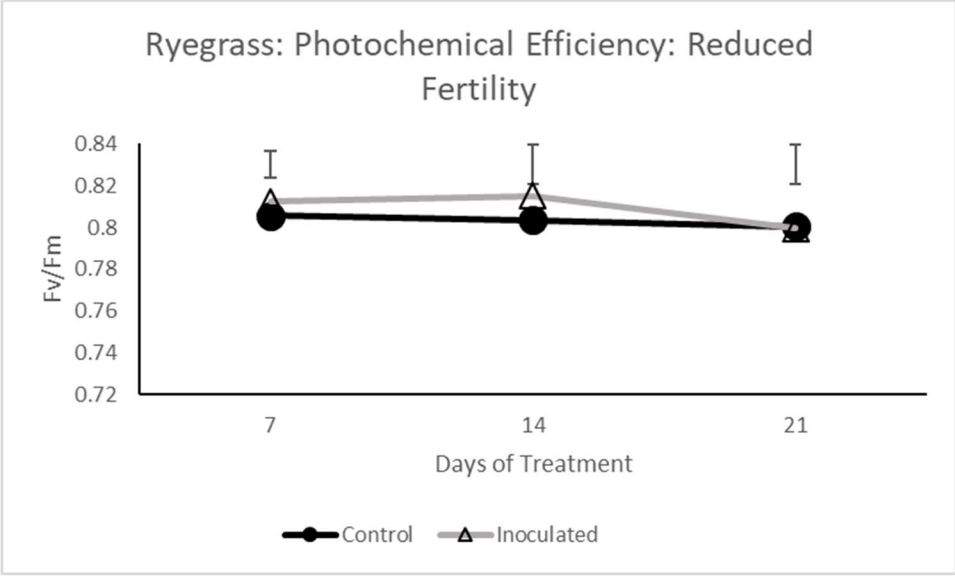


Figure 44: Ryegrass photochemical efficiency (Fv/Fm) under reduced fertility growing conditions for non-inoculated and inoculated plants.

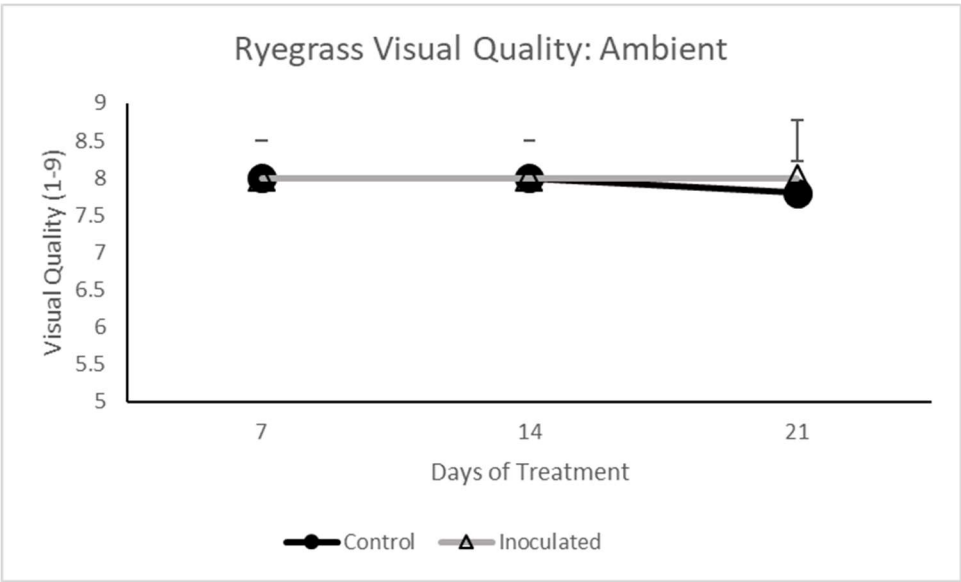


Figure 45: Ryegrass visual quality under ambient growing conditions for non-inoculated and inoculated plants.

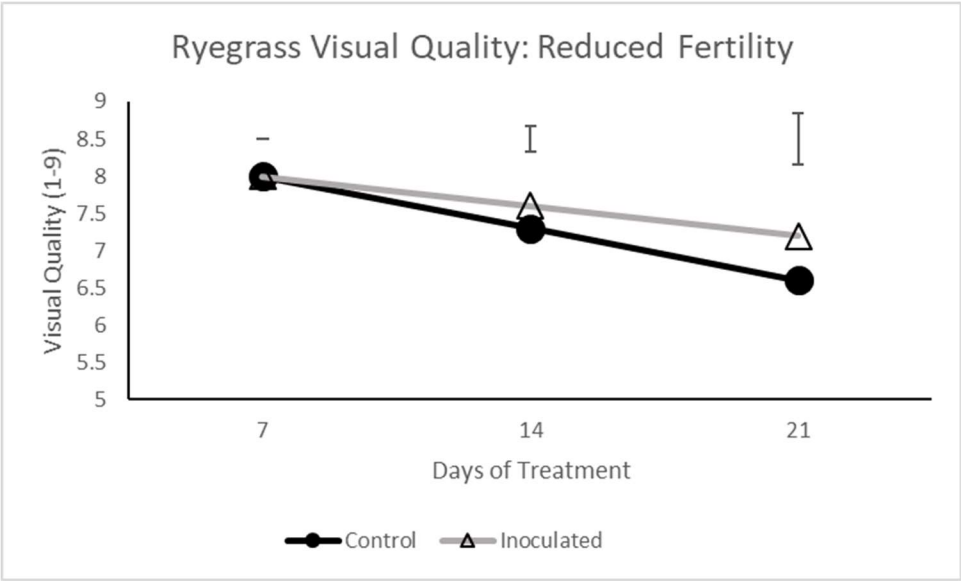


Figure 46: Ryegrass visual quality under reduced fertility growing conditions for non-inoculated and inoculated plants.

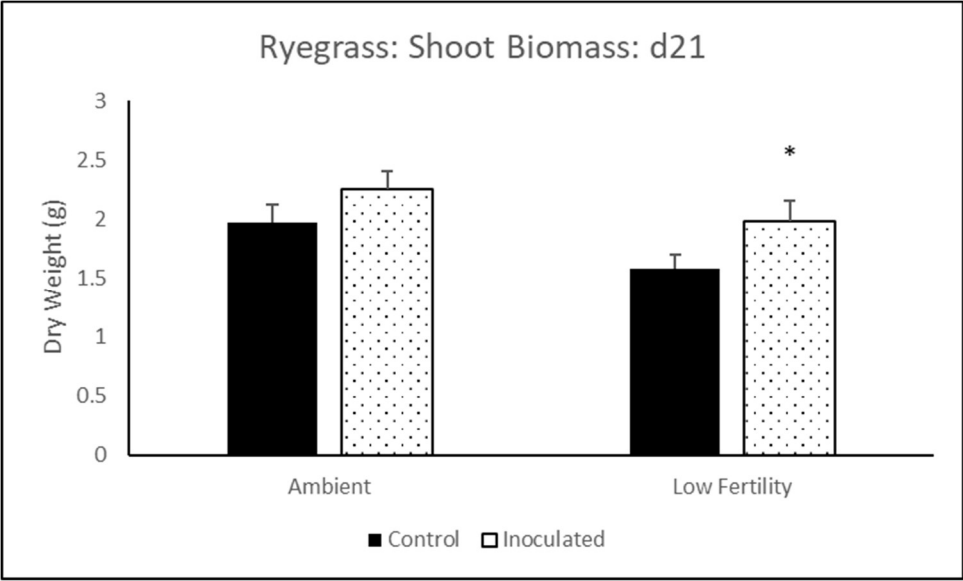


Figure 47: Ryegrass shoot biomass after 21 days of stress treatments.

\* indicates significant difference at  $p < 0.05$ .

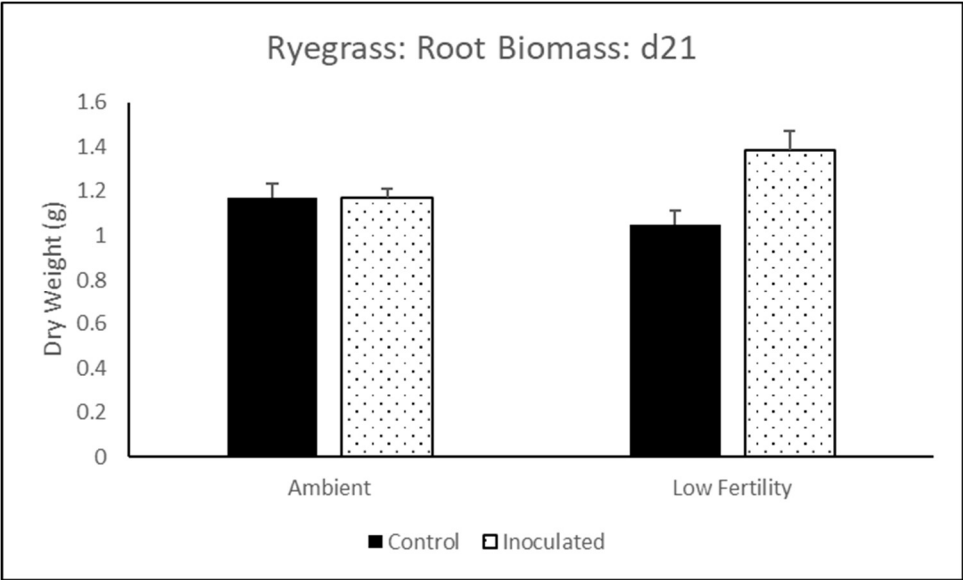


Figure 48: Ryegrass root biomass after 21 days of stress treatments.

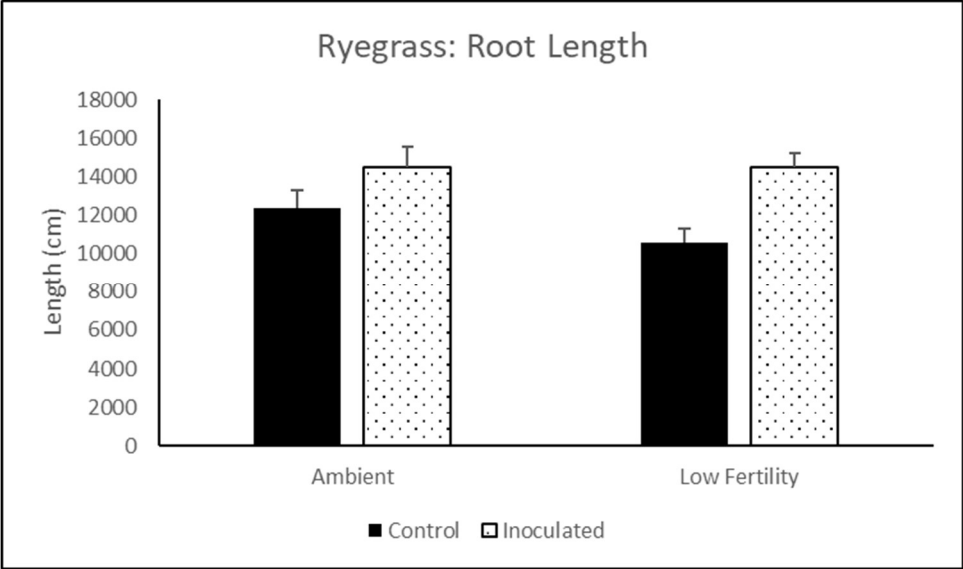


Figure 49: Ryegrass root length after 21 days of stress treatments.

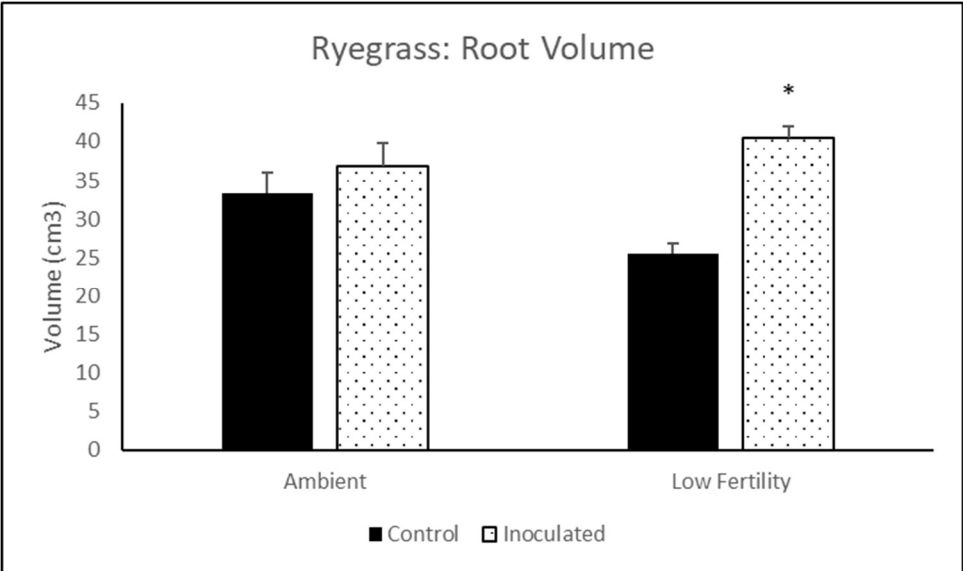


Figure 50: Ryegrass root volume after 21 days of stress treatments.

\* indicates significant difference at  $p < 0.05$ .

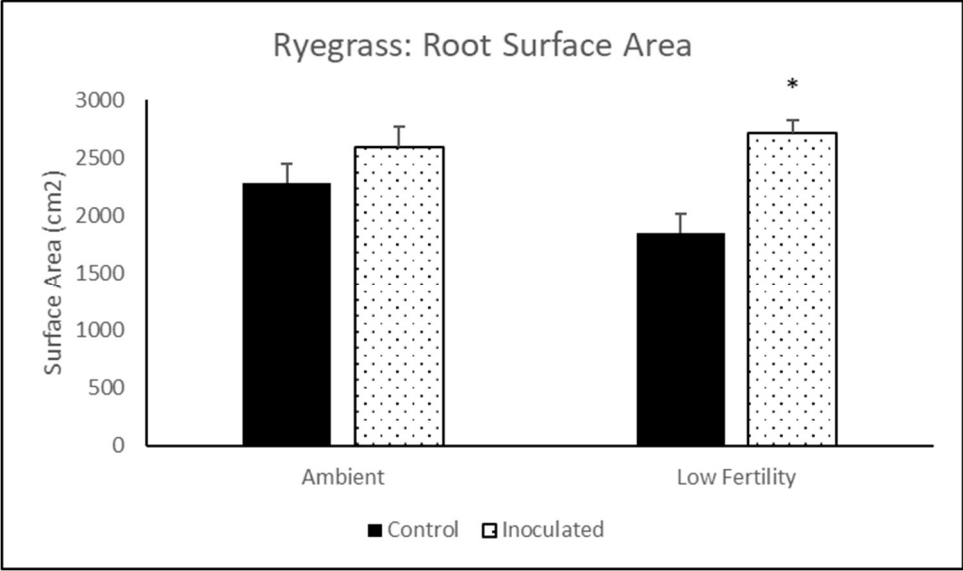


Figure 51: Ryegrass root surface area after 21 days of stress treatments.

\* indicates significant difference at p<0.05.

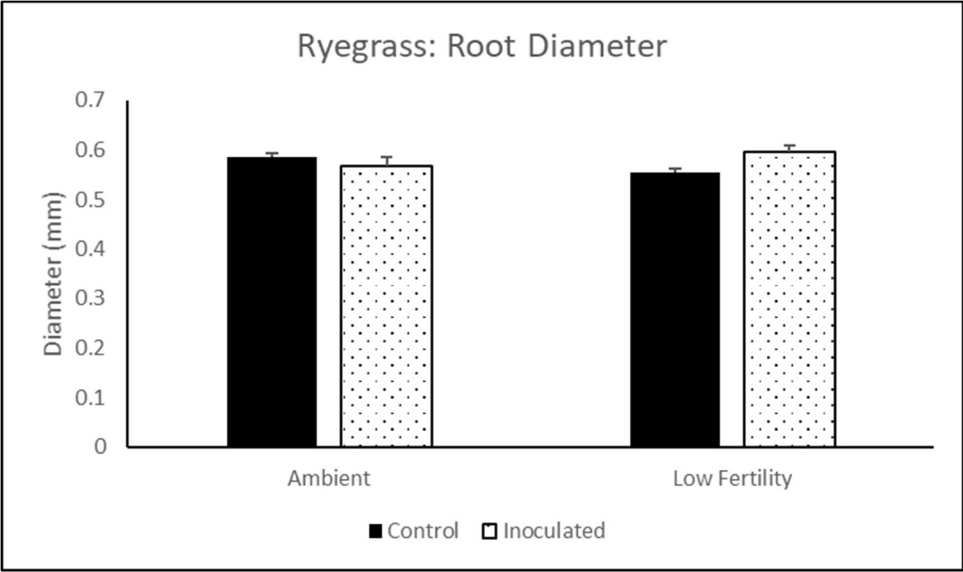


Figure 52: Ryegrass root diameter after 21 days of stress treatments.

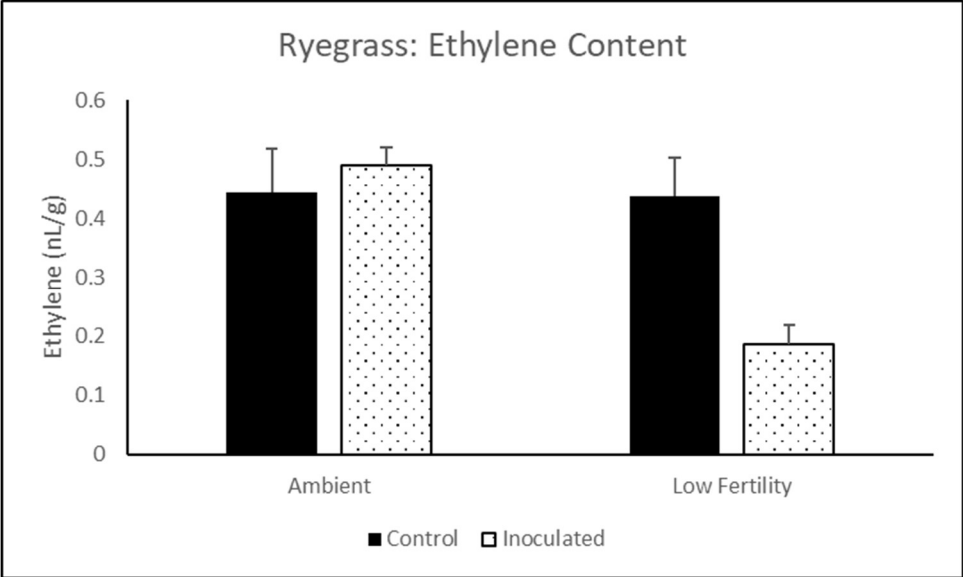


Figure 53: Ryegrass ethylene content after 21 days of stress treatments.



Table 3: Nutrient analysis for ryegrass under ambient and reduced fertility conditions. Different letters indicate significant difference at  $p < 0.05$ .

	N %	P %	K %	Ca %	Mg %	S %	Min mg/kg	Fe mg/kg	Cu mg/kg	B mg/kg	Al mg/kg	Zn mg/kg	Na mg/kg
<b>Ambient</b>													
Control	1.52 a	0.31 a	2.89 a	0.28 a	0.21 a	0.57 a	352.88 a	2778.13 a	12.70 a	14.26 a	1509.55 a	34.51 a	2358.51 a
Inoculated	1.59 a	0.31 a	2.88 a	0.28 a	0.21 a	0.63 a	342.42 a	2336.77 a	11.30 a	15.09 a	1298.53 a	31.61 a	2186.00 a
<b>Reduced Fertility</b>													
Control	1.30 a	0.28 a	2.69 a	0.28 a	0.21 a	0.57 a	359.19 a	2891.23 a	10.78 a	17.18 a	1636.05 a	31.47 a	1827.33 a
Inoculated	1.18 a	0.27 b	2.49 b	0.25 a	0.18 b	0.67 a	391.74 a	2466.51 a	10.80 a	13.10 b	1459.65 a	30.95 a	1881.97 a