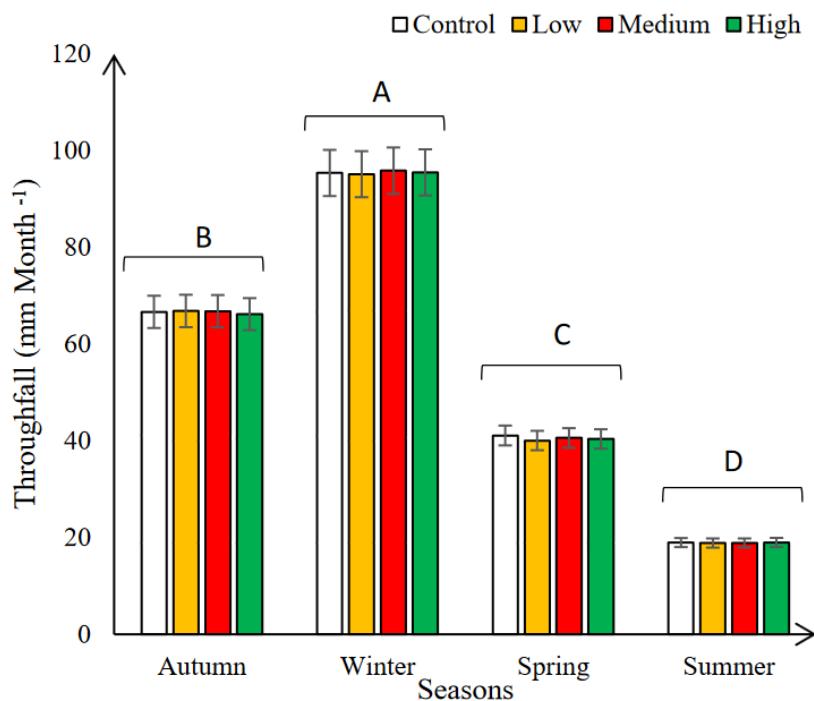
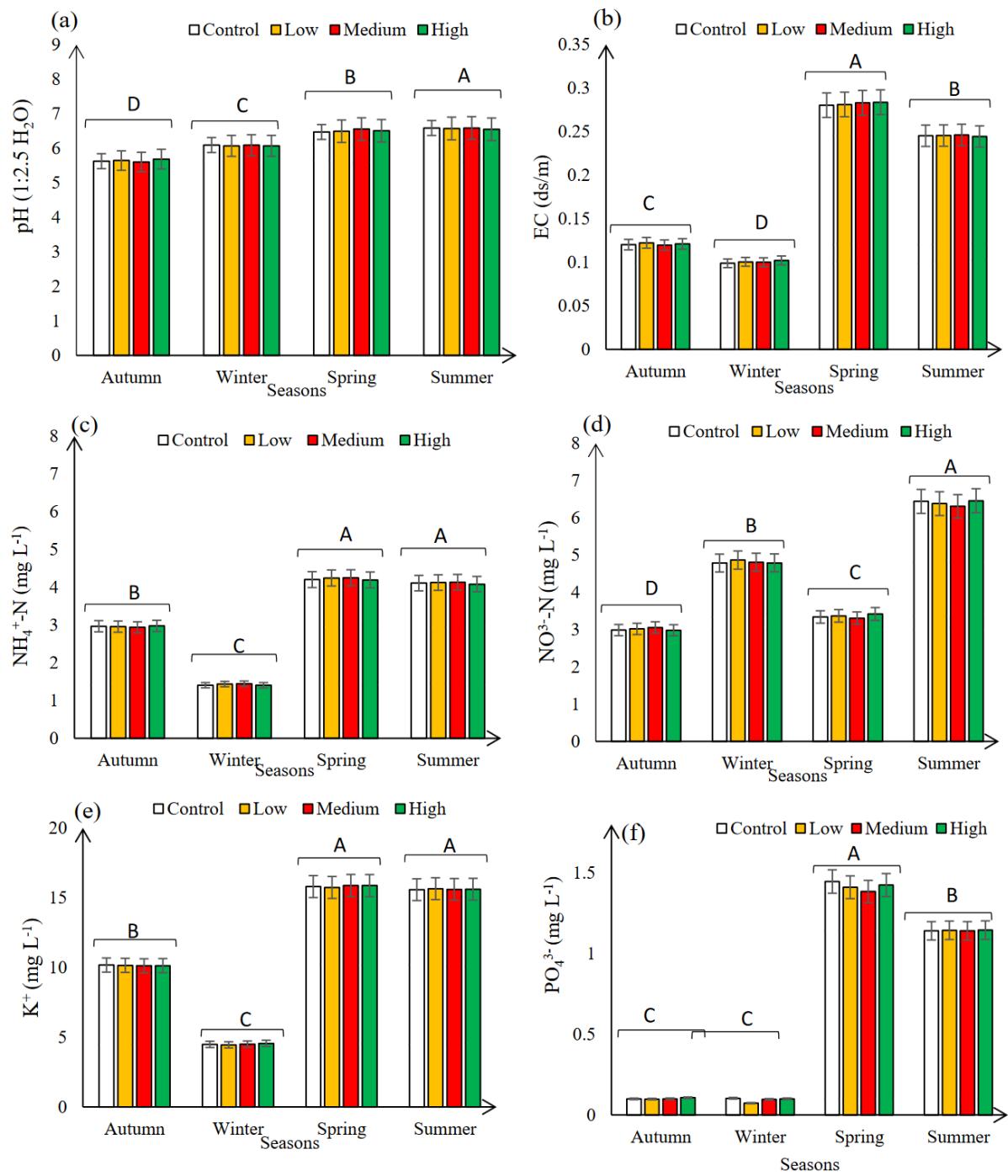


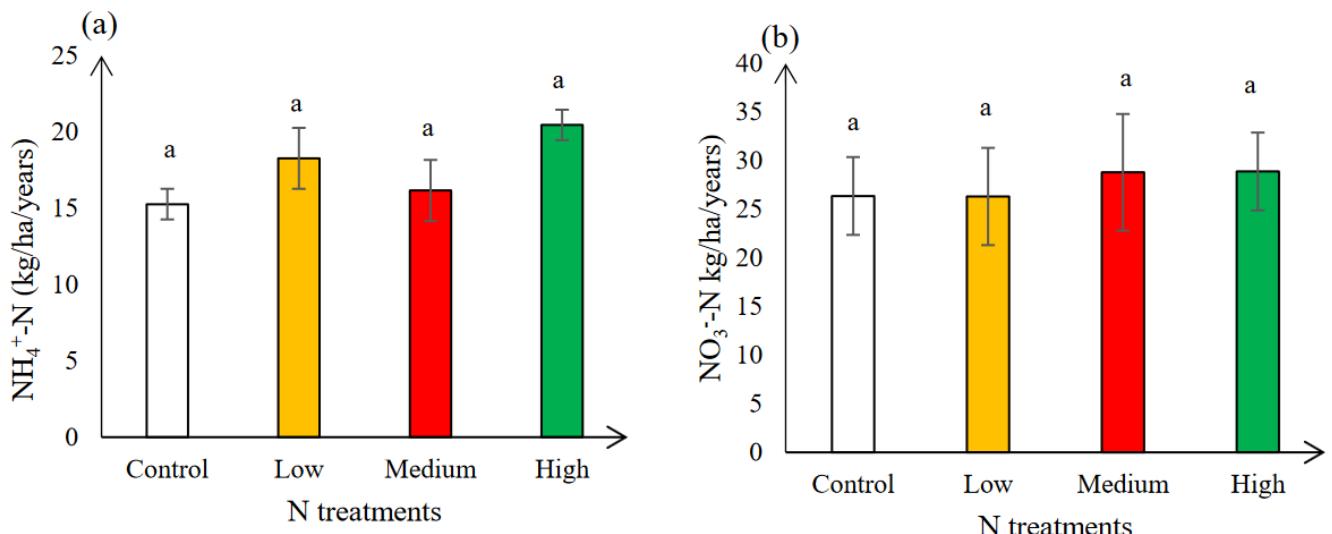
## Supplementary material



**Fig. A1.** The rate of throughfall in different nitrogen deposition treatments and different seasons in oak (*Quercus castaneifolia*) Plantation (similar lowercase letters indicate no significant differences ( $P > 0.05$ ) between different nitrogen deposition treatments and different capital letters indicate significant ( $P < 0.05$ ) differences among seasons)



**Fig. A2.** The effects of different nitrogen deposition treatments on throughfall nutrients concentrations pH (a), EC (b), NO<sub>3</sub><sup>-</sup> (c), NH<sub>4</sub><sup>+</sup> (d), K (e) and PO<sub>4</sub><sup>3-</sup> (f) in oak (*Quercus castaneifolia*) plantation (different capital letters indicate significant ( $P < 0.05$ ) differences among seasons)



**Fig. A3.** Mean ( $\pm$ ED) annual nutrient fluxes in throughfall in different levels of N treatment a: ( $\text{NH}_4^+$ -N), b :( $\text{NO}_3^-$ -N), (similar lowercase letters indicate no significant differences ( $P > 0.05$ ) between different nitrogen deposition)

**Table A1.** Correlation of soil and forest floor nutrient concentrations with PCA components.

Soil property	PC1	PC2	Forest floor property	PC1	PC2
MBC	-0.88 ns	0.03 ns	Forest floor N	0.75 ns	0.41 ns
Available K	<b>-0.95**</b>	-0.15 ns	Forest floor K	-0.16 ns	0.10 ns
N	<b>0.97**</b>	0.13 ns	Forest floor P	0.50 ns	0.31 ns
EC	0.75 ns	-0.29 ns	Forest floor C	0.22 ns	0.15 ns
pH	<b>-0.91*</b>	-0.02 ns			
Organic C	0.65 ns	-0.52 ns			
Available P	<b>-0.97**</b>	-0.10 ns			
C/N	-0.67 ns	-0.57 ns			
Urease	0.63 ns	0.53 ns			

\* $P < 0.05$ . \*\* $P < 0.01$ . ns = not-significant. Bold and italic numbers indicate significant correlation.