

Figure S1: Cerium content in tomato seeds harvested from tomato plants irrigated with solutions containing different concentrations of cerium oxide nanoparticles throughout their lifecycle.

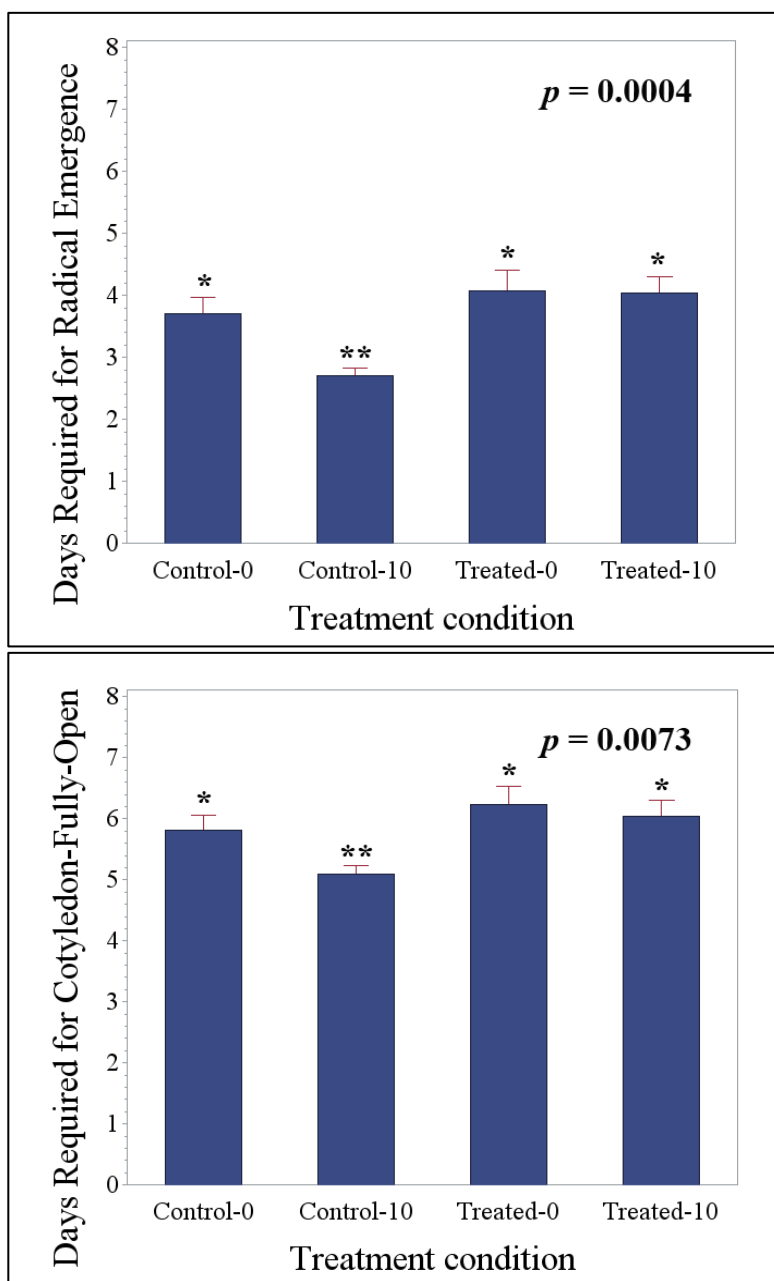


Figure S2. Days required for radicle emergence (Top) and full cotyledon expansion (Bottom) during seed germination. Error bars represent the standard error of the mean (n= 5). An asterisk denotes a mean significantly different from the other means ($p < 0.05$).

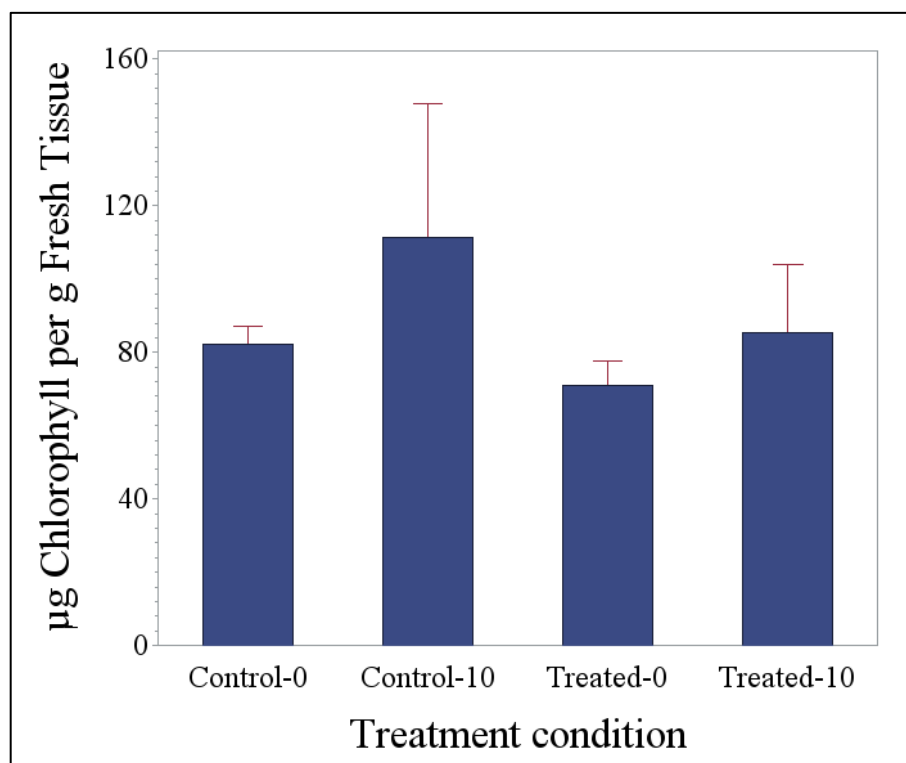


Figure S3. Chlorophyll content in leaf tissues of second generation seedlings. Error bars represent the standard error of the mean (n=3).

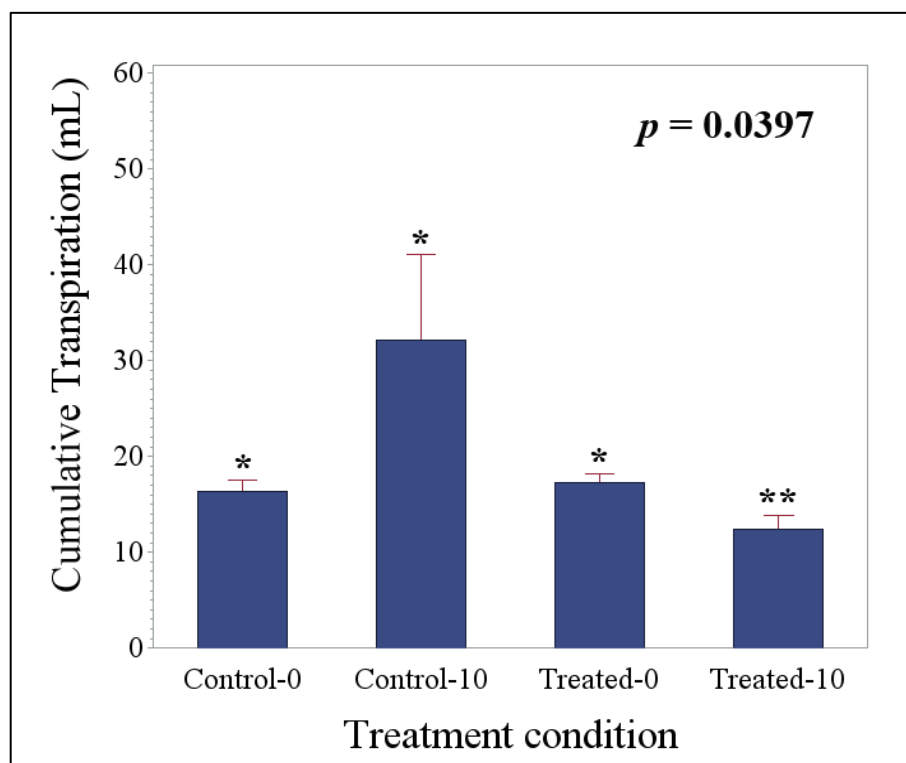


Figure S4. Cumulative water transpiration of second generation seedlings during the 10-day growth period with or without the presence of CeO₂-NPs. Error bars represent the standard error of the mean (n= 5). Asterisks above bars demonstrate groupings of significant difference ($p < 0.05$) after one-way ANOVA test.

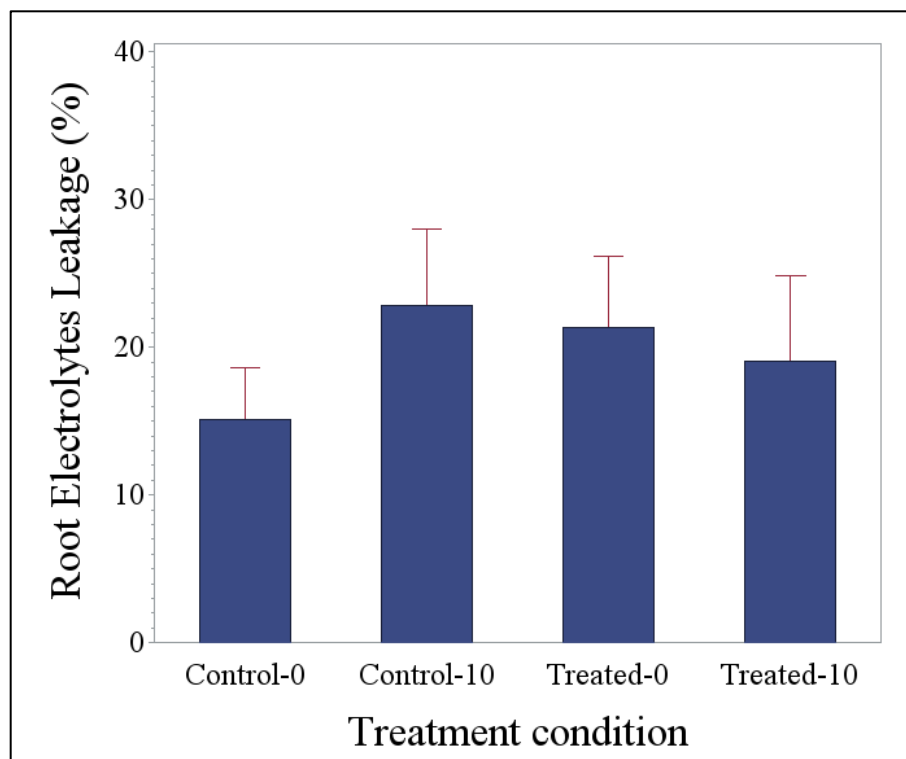


Figure S5. Root electrolyte leakage status of second generation seedlings originated from control and treated seeds growing with or without the CeO₂-NPs. Error bars represent the standard error. n=5. No significant difference was detected.