Šilanskienė M, Sirgedaitė-Šėžienė V, Vaitiekūnaitė D, MKDS Co. (2024). **Chitosan exhibits variable effects on pine (*Pinus sylvestris* L.) and alder (*Alnus glutinosa* L.) growth and secondary metabolism** iForest – Biogeosciences and Forestry – doi: 10.3832/ifor4404-017

Supplementary Material

Fig. S1 - Differences between germinated seeds (a), in root (b), shoot (c) and needle length (d), total antioxidant activity DPPH and ABTS (e) of in vitro grown *Pinus sylvestris* seedlings from control group (seeds treated with water) % ± RSE. A pool of 30 plants was analysed, with 10 individuals coming from 3 independent replicates. Three samples from this pool were taken for this analysis. Three technical replicates for each sample were done. Data significance was calculated using the Kruskal-Wallis H test for ranks and *post hoc* Dunn's test for pairs (*: $p < 0.05$).

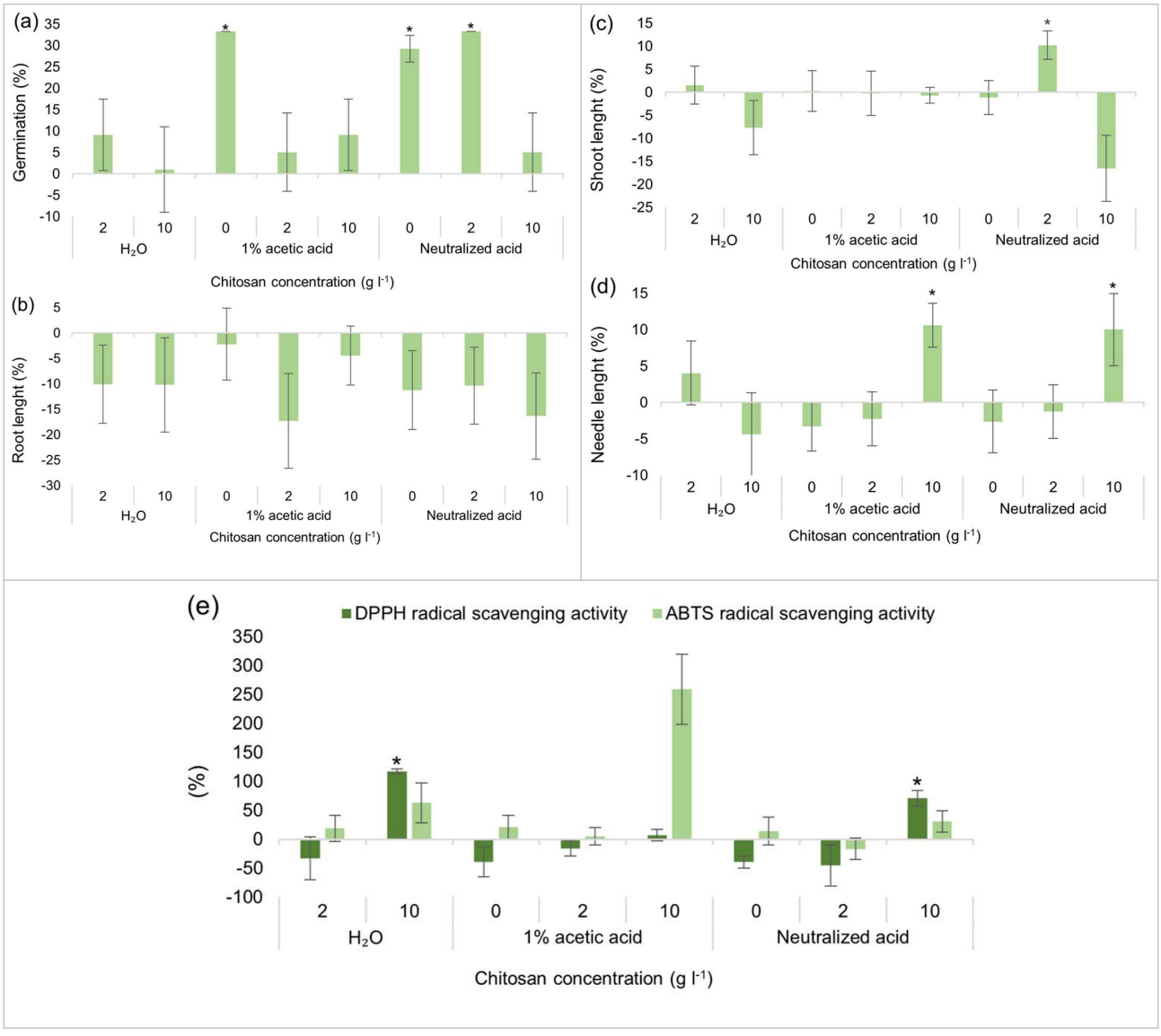

Fig. S2 - Differences between germinated seeds (a), in root (b) and shoot (c) length, leaf width (d) of in vitro grown *Alnus glutinosa* seedlings from the control group (seeds treated with water) % ± RSE. A pool of 30 plants was analysed, with 10 individuals coming from 3 independent replicates. Three samples from this pool were taken for this analysis. Three technical replicates for each sample were done. Data significance was calculated using the Kruskal-Wallis H test for ranks and *post hoc* Dunn's test for pairs (*: $p < 0.05$).

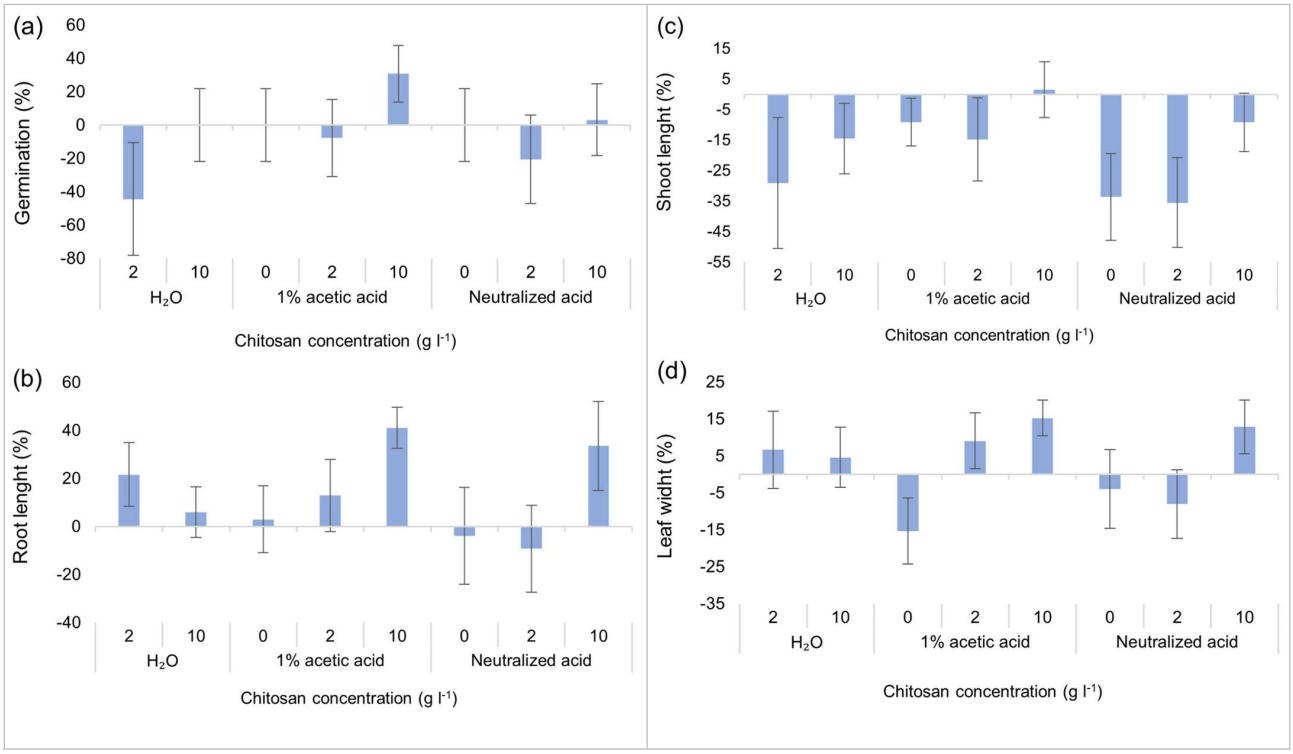

Fig. S3 - Differences in the amount of total phenolic content (TPC) and total flavonoid content (TFC) (a), chlorophylls *a* (b), *b* (c) and carotenoids (d) of ex vitro adapted *Pinus sylvestris* seedlings from the control group % ± RSE. A pool of 30 plants was analysed, with 10 individuals coming from 3 independent replicates. Three samples from this pool were taken for this analysis. Three technical replicates for each sample were done. Data significance was calculated using the Kruskal-Wallis H test for ranks and *post hoc* Dunn's test for pairs (*: $p < 0.05$).

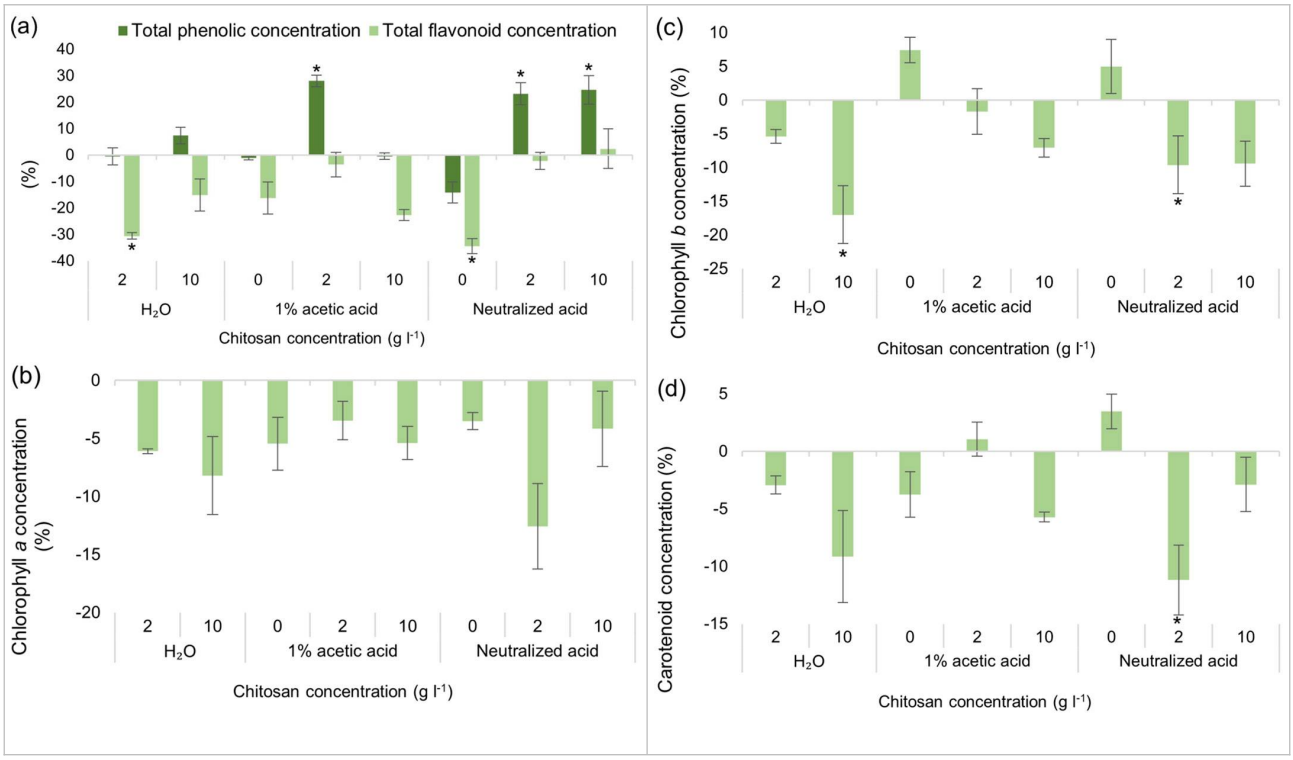

Fig. S4 - Differences in the amount of chlorophylls a (a), b (b) and carotenoids (c) of *ex vitro* adapted *Alnus glutinosa* seedlings from the control group % ± RSE. A pool of 30 plants was analysed, with 10 individuals coming from 3 independent replicates. Three samples from this pool were taken for this analysis. Three technical replicates for each sample were done. Data significance was calculated using the Kruskal-Wallis H test for ranks and *post hoc* Dunn's test for pairs (*: $p < 0.05$).

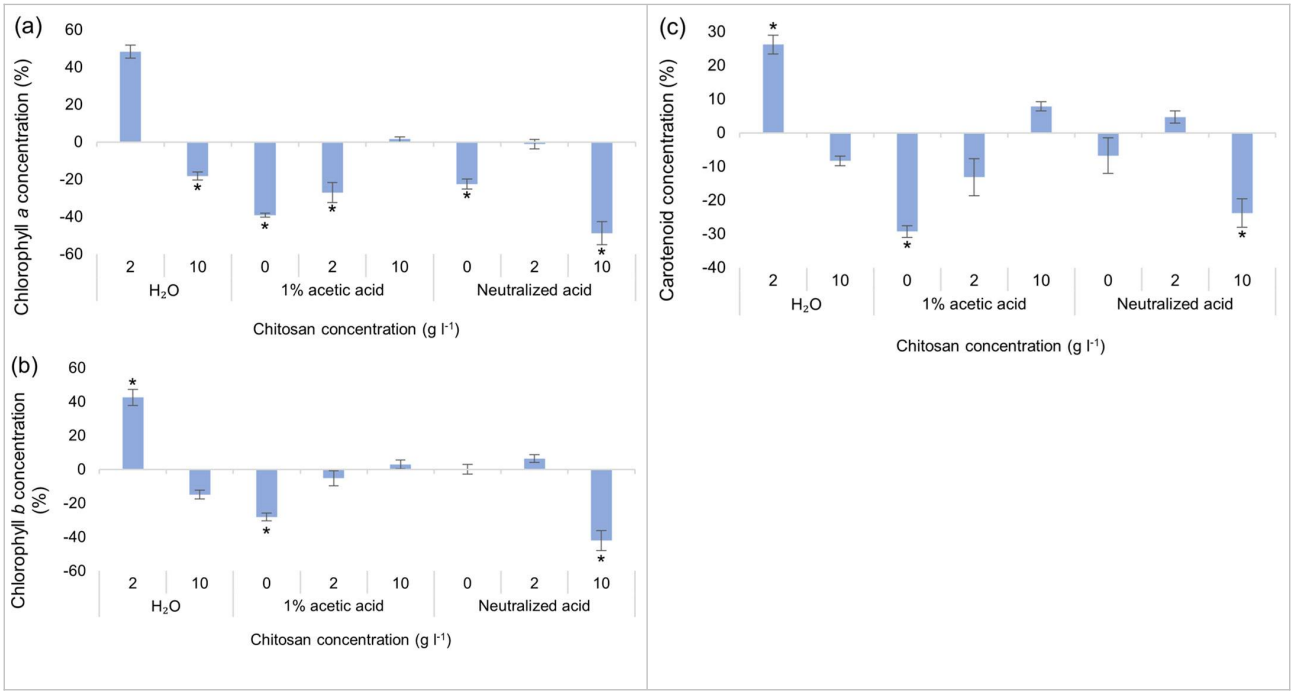

Fig. S5 Differences in the amount of total phenolic content (TPC) and total flavonoid content (TFC) of *Pinus sylvestris* seedlings from the control group % ± RSE depending on chitosan powder storage conditions and solvent used. A pool of 30 plants was analysed, with 10 individuals coming from 3 independent replicates. Three samples from this pool were taken for this analysis. Three technical replicates for each sample were done. Data significance was calculated using the Kruskal-Wallis H test for ranks and *post hoc* Dunn's test for pairs (*: $p < 0.05$).