Supplementary Material

“An assessment of the suitability of contrasting biosolids for raising indigenous plants in nurseries”.

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1. **Table S1 (in this document):** Ecological requirement by indigenous species used in the greenhouse experiment.

2. **Excel spread sheet with additional plant nutrients and trace elements information (Table S2)**

3. **Figures S1 - S4: compilation of two-week monitoring.**

4. **Figure S5 - S8: pictures of the plants.**

Table S1: Ecological requirement by indigenous species used in the greenhouse experiment.

Species	vernacular	Habitat
Corokia cheesemanii Turril *(Corokia* × *virgata* Turrill*)*	Corokia / korokio	Hybrid - *C. cotoneaster* Raoul x *C. buddleioides* A. Cunn Hybrid species that occur in hybrid swarms on subtropical biome. Can also occur in coastal conditions and stand strong winds[1]. It can be grown on gardens near adult plants as well [2].
Veronica salicifolia G.Forst	Hebe / koromiko	Duneland wetland, banks of duneland streams [3]. Occurs in open sites, forest and close to treelines near sea-level [4].
Griselinia littoralis Raoul	Broadleaf / kāpuka	Usually found in humid areas in forest or at the coast [5]
Cordyline australis (G.Forst.) Endl	Cabbage tree / tī kōuka	Dry dunelands [3]. Tolerate dry soils and can be resilient when the bush is gone [6-7]
Phormium tenax J.R.Forst. et G.Forst	New Zealand flax / harakeke	Dry duneland (moist sand plains & hollows), dune wetlands [3] Grows throughout in lowland swamps [6] Common from lowland and coastal areas to montane forest, usually (not exclusively) in wetlands and in open ground along riversides [8]
Poa cita Edgar	Silver tussock	Semi fertile soils, lowland forest [5] Grasslands on plains (low-high), dry ridges, valley floors and slips [9] Shrubland or woodland at lower altitudes [5,10]

References

1. Manaaki Whenua - Landcare Research New Zealand Plant Names Database - Corokia ×cheesemanii Carse. Available online: https://biotanz.landcareresearch.co.nz/scientific-names/af2bf9f9-8b9c-49d8-bc04-ccc607cb4c90 (accessed on 2 April 2024).
2. Manaaki Whenua - Landcare Research New Zealand Plant Names Database - Corokia ×virgata Turrill. Available online: https://biotanz.landcareresearch.co.nz/scientific-names/922a0f41-58d7-42b2-8c0a-5259fedd9ad3 (accessed on 2 April 2024).
3. KCDC (Kāpiti Coast District Council) *A Guide to Growing Native Plants in Kapiti*; 1999;
4. Ward, M.D. Veronica Salicifolia Fact Sheet Available online: https://www.nzpcn.org.nz/flora/species/veronica-salicifolia/ (accessed on 8 April 2024).
5. Wardle, P. *Vegetation of New Zealand*; Cambridge University Press, 1991;
6. Webb, C.J.; Johnson, P.; Sykes, B. *Flowering Plants of New Zealand*; DSIR Botany, 1990;
7. Lange, P.J. Cordyline Australis Fact Sheet Available online: https://www.nzpcn.org.nz/flora/species/cordyline-australis/ (accessed on 8 April 2024).
8. Lange, P.J. Phormium Tenax Fact Sheet Available online: https://www.nzpcn.org.nz/flora/species/phormium-tenax/ (accessed on 8 April 2024).
9. Hutchinson, M.; Lloyd, K. *Priorities for Indigenous Biodiversity Protection in Waimakariri District: Significant Vegetation and Habitat Types and Indigenous Plant Species*; 2021;
10. Alan, F.M. “Grasslands” Available online: https://teara.govt.nz/en/grasslands/print (accessed on 8 April 2024).

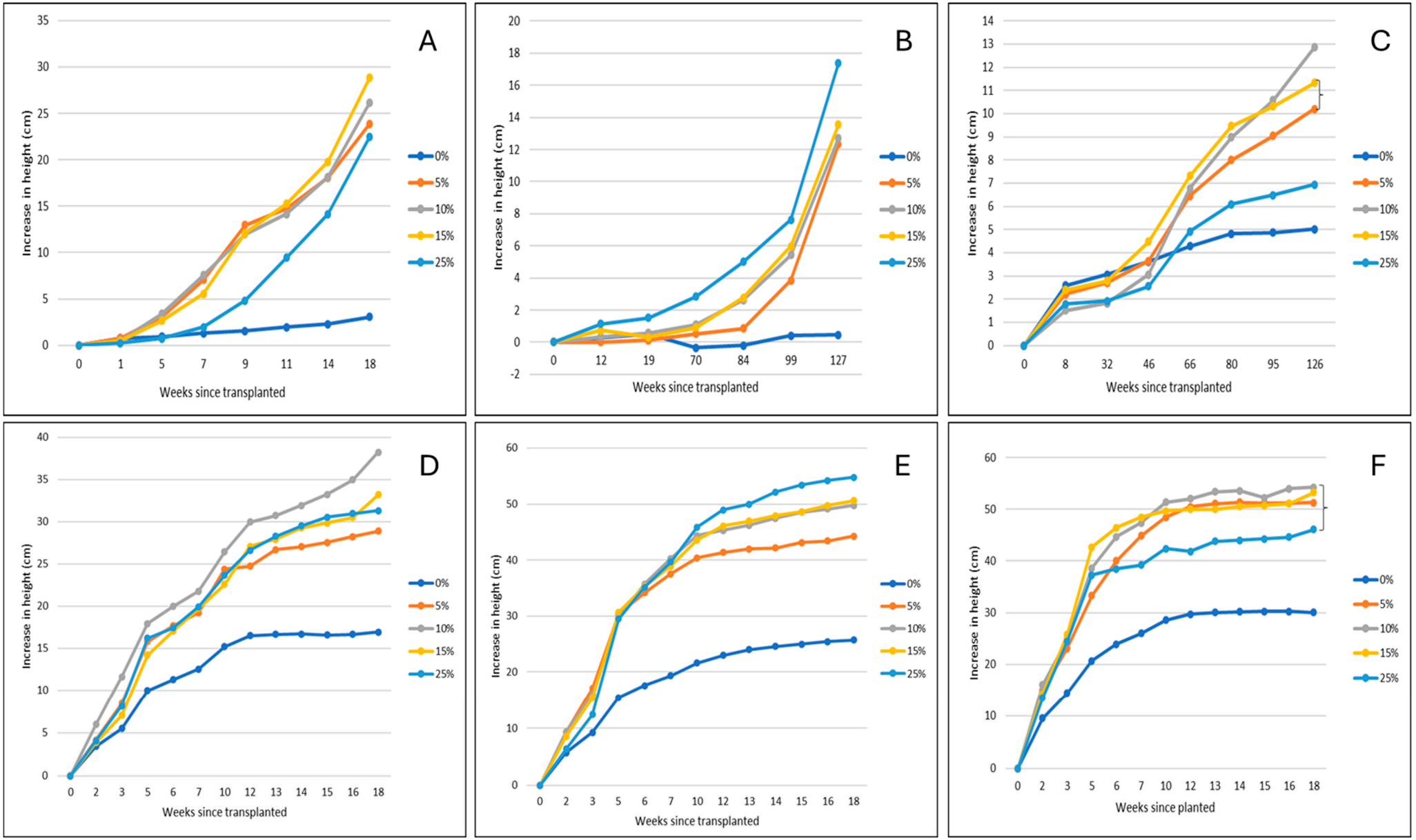

Figure S1: plant height during the experiment using B1. A) V. salicifolia. B) C. cheesemanii, C) G. littoralis, D) P. tenax, E) C. australis, F) P. cita

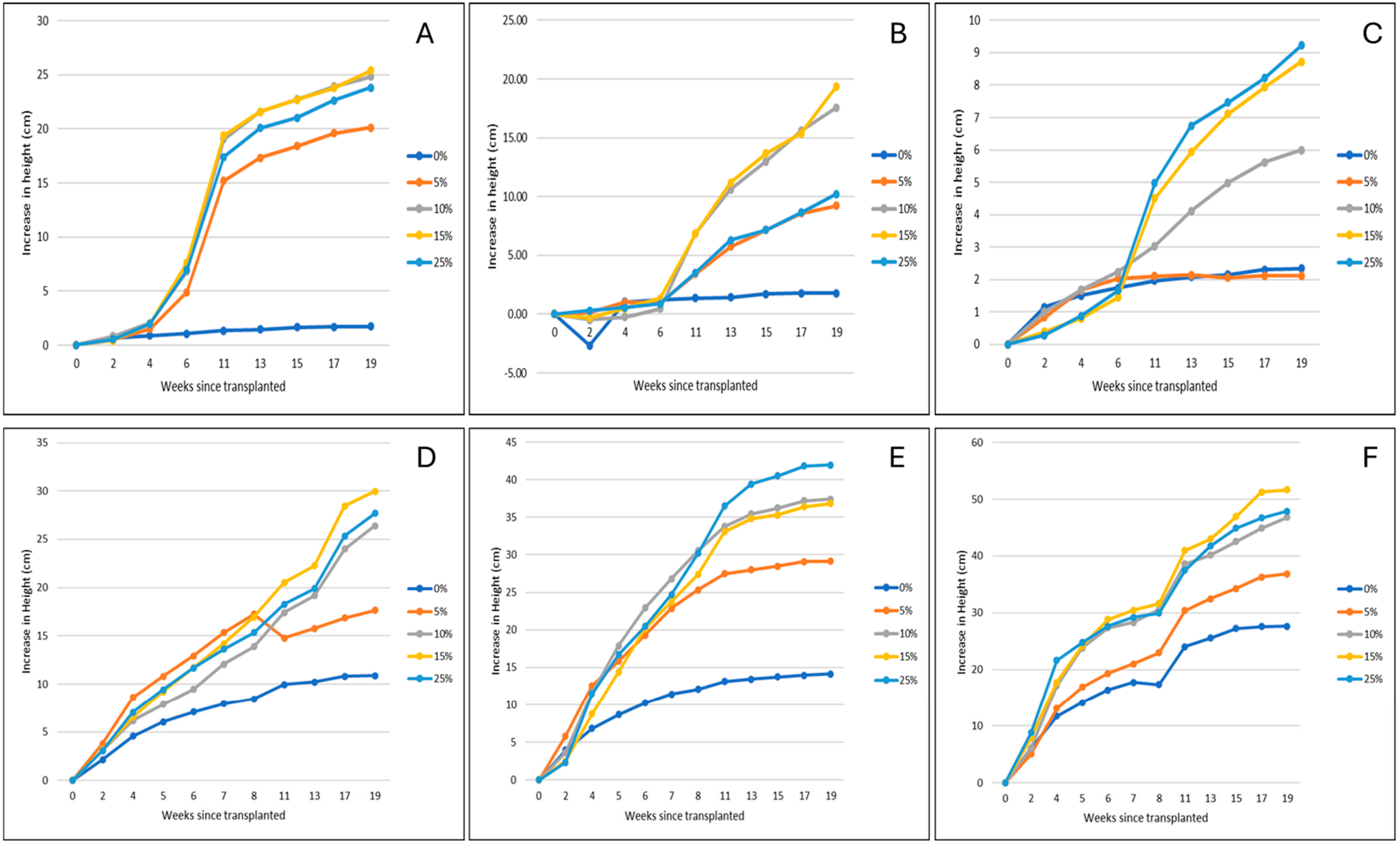

Figure S2: plant height during the experiment using B2. A) V. salicifolia. B) C. cheesemanii, C) G. littoralis, D) P. tenax, E) C. australis, F) P. cita

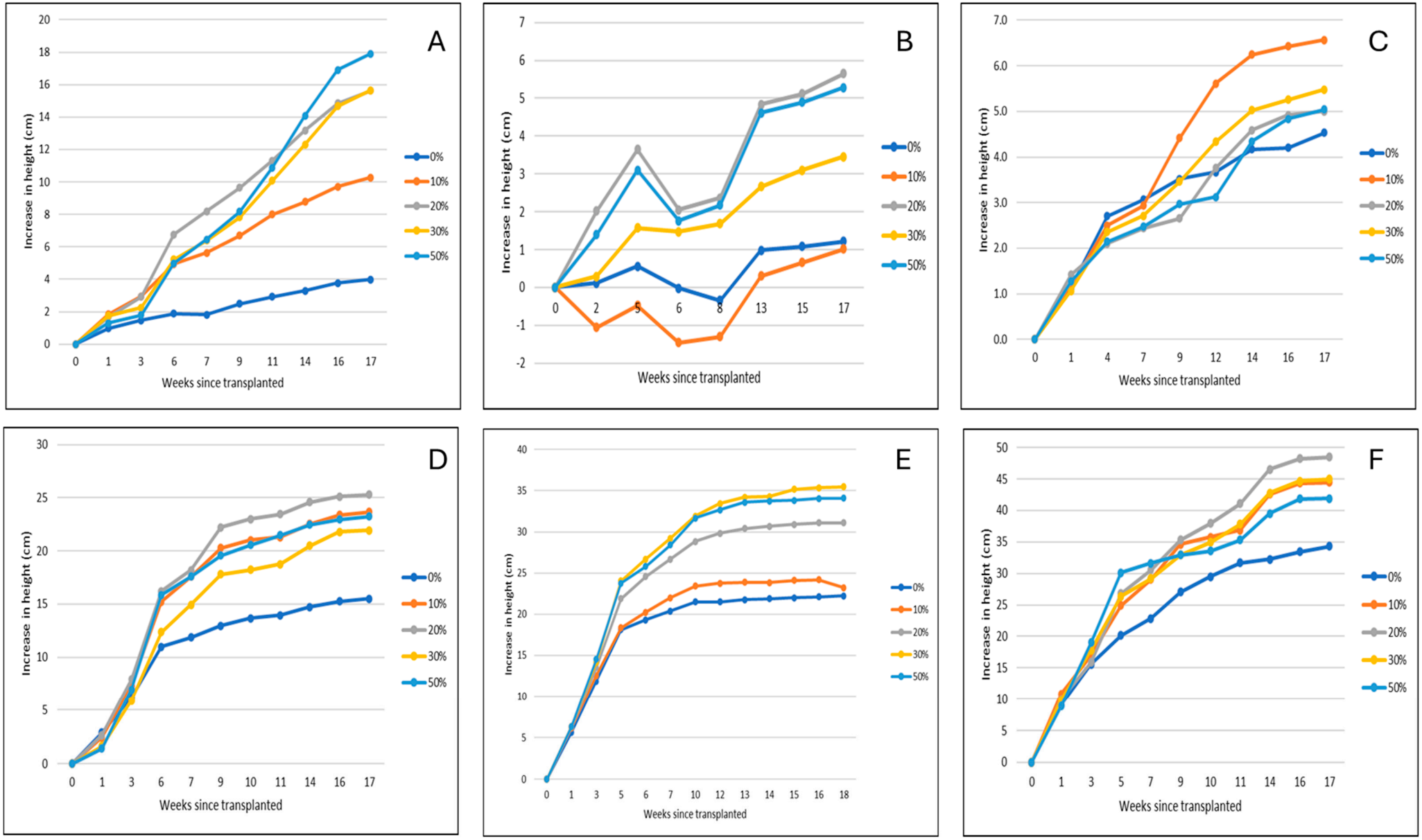

Figure S3: plant height during the experiment using B3. A) V. salicifolia. B) C. cheesemanii, C) G. littoralis, D) P. tenax, E) C. australis, F) P. cita

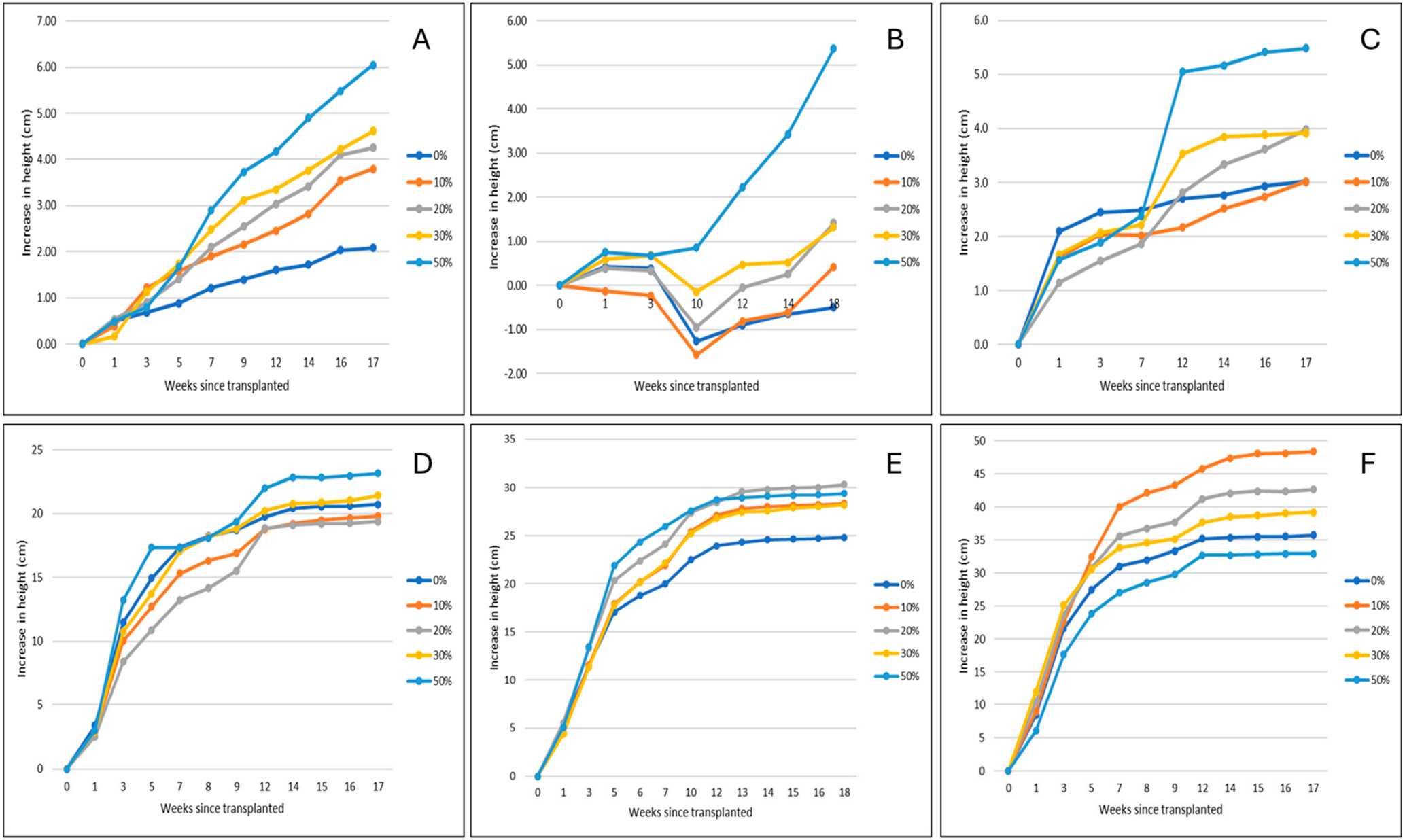

Figure S4: plant height during the experiment using PS. A) V. salicifolia. B) C. cheesemanii, C) G. littoralis, D) P. tenax, E) C. australis, F) P. cita

Figure S5. Plants growing in different treatments using B1 at he end of the experiment.

Figure S6. Plants growing in different treatments from B2 at the end of the experiment.

Figure S7. Plants growing in different treatments using B3 at the end of the experiment.

Figure S8. Plants growing in different treatments using PS at the end of the experiment.