

Native vegetation to manage nutrients in wastewater land application schemes

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Native vegetation?



Duvauchelle field trial



MC	MC	MC
3W	2W	1W
1C	3C	2C
2W	3W	1W
2C	1C	3C
1W	2W	3W
3C	2C	1C
3W	2W	1W
1C	3C	2C

C: control
W: TMW irrigation
1,2,3: vegetation type
M: mixed vegetation

2015 - 2021

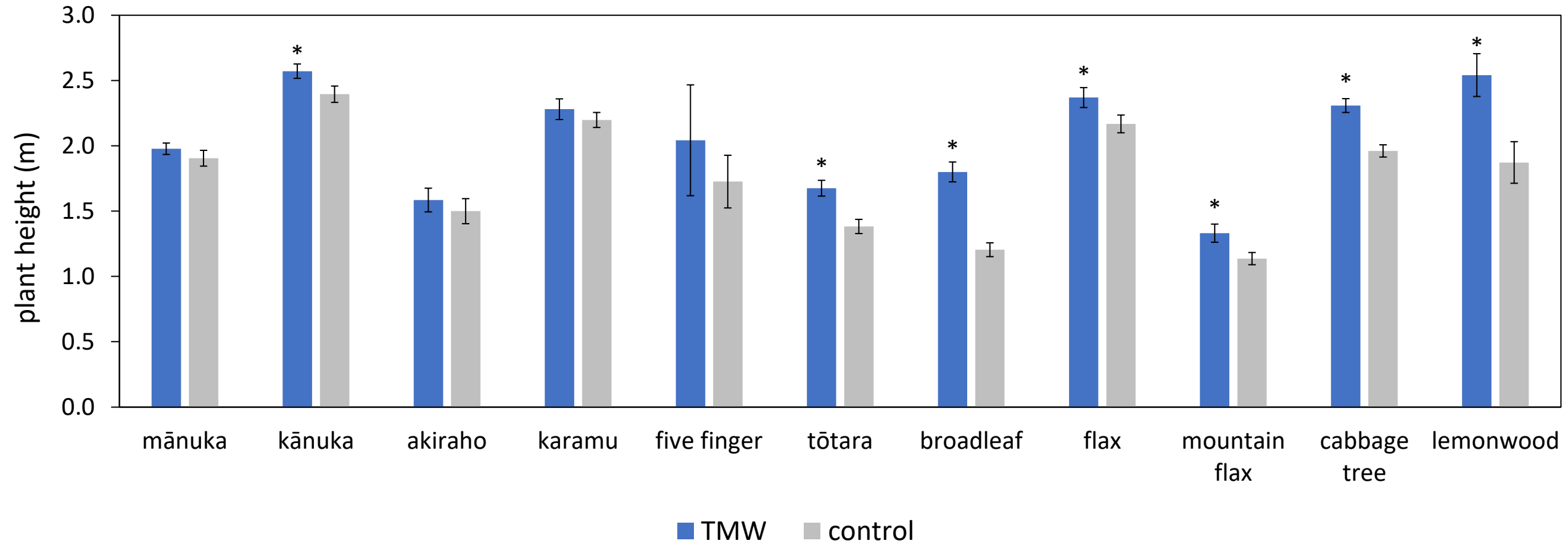


 1000 mm/yr

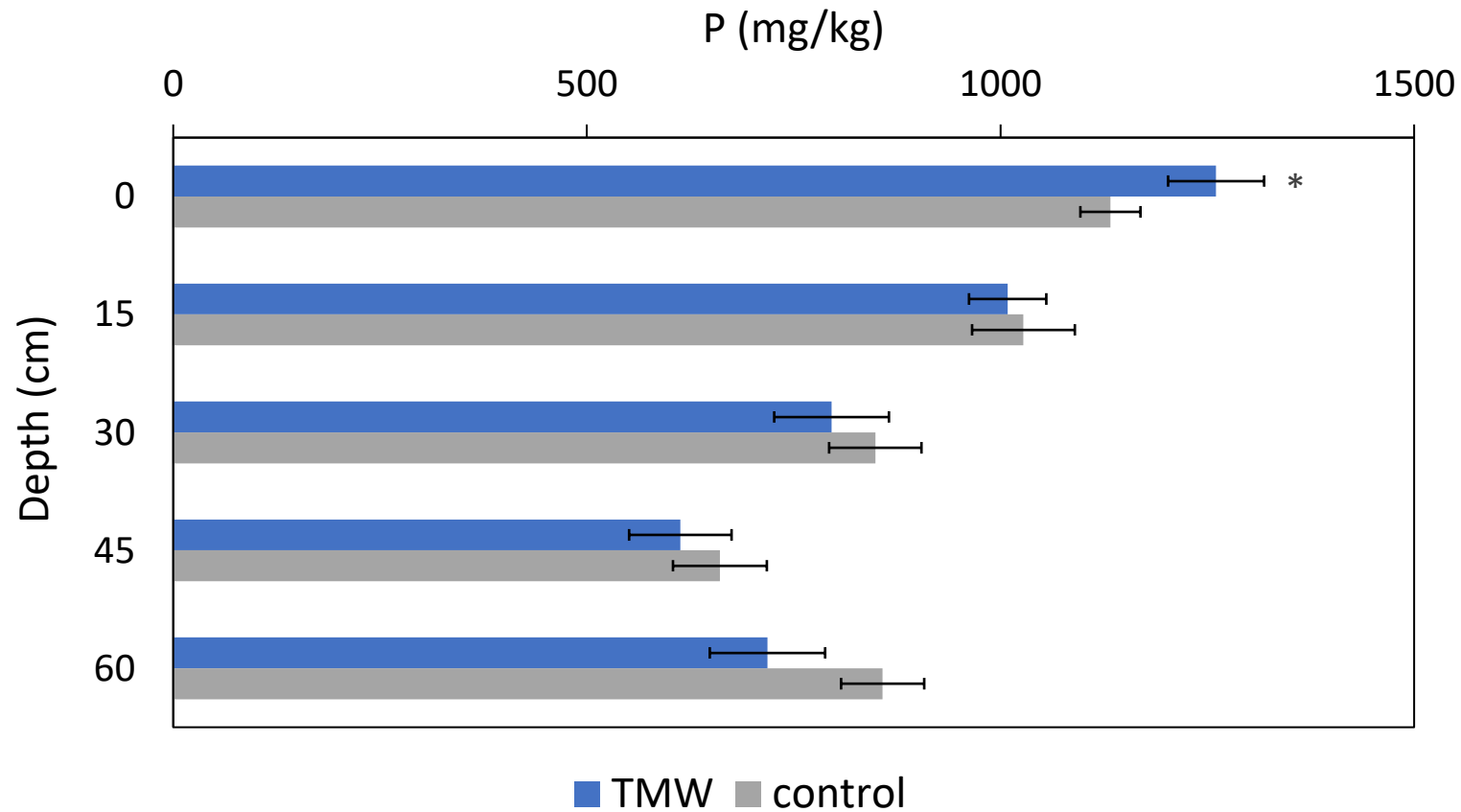
Elements applied with wastewater

Element	Application (kg/ha/yr)
N	200
P	110
K	220
S	250
Ca	590
Mg	190
Zn	1.7
Cu	0.4
Cd	<0.01
Na	950

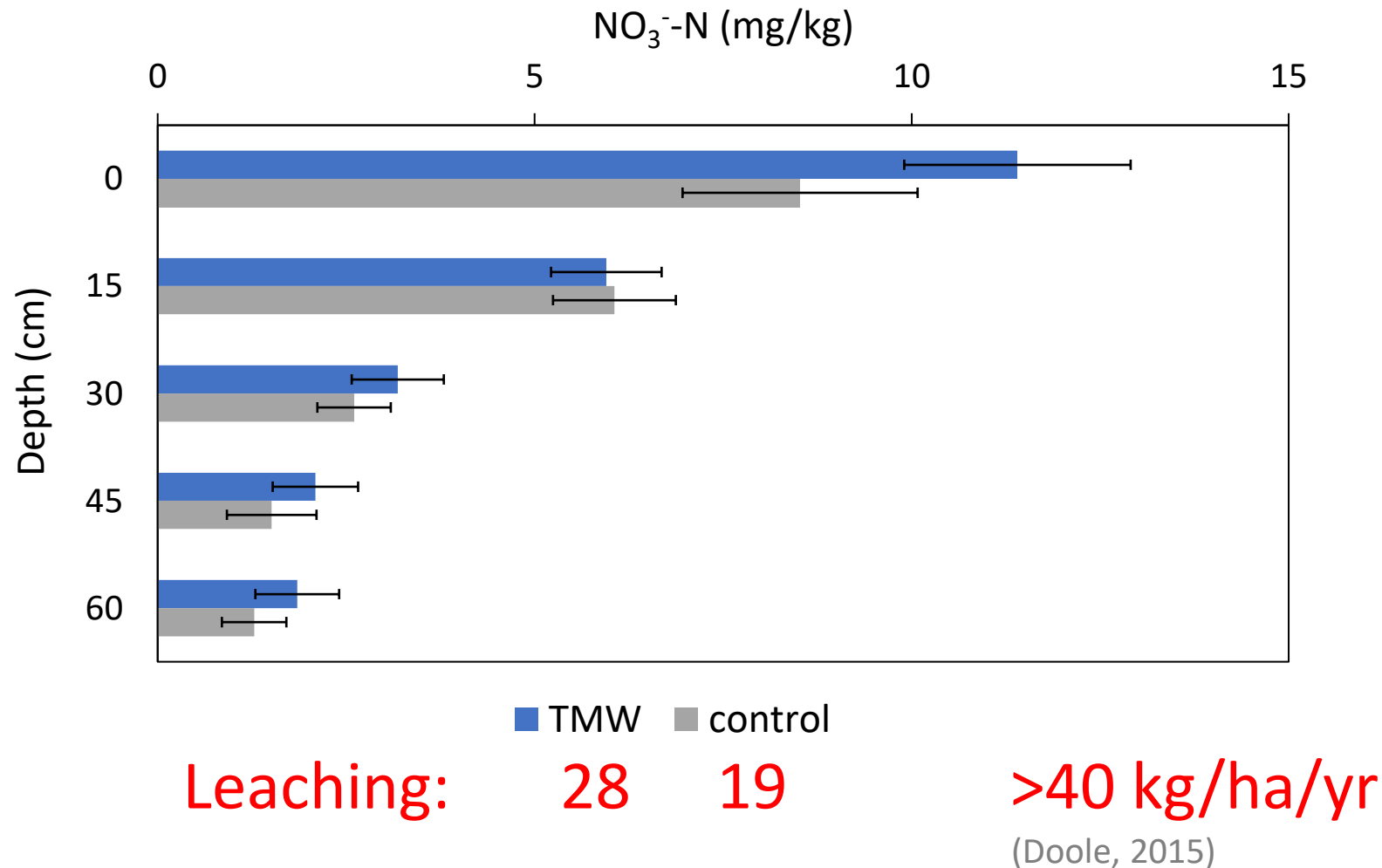
Wastewater increases native plant growth



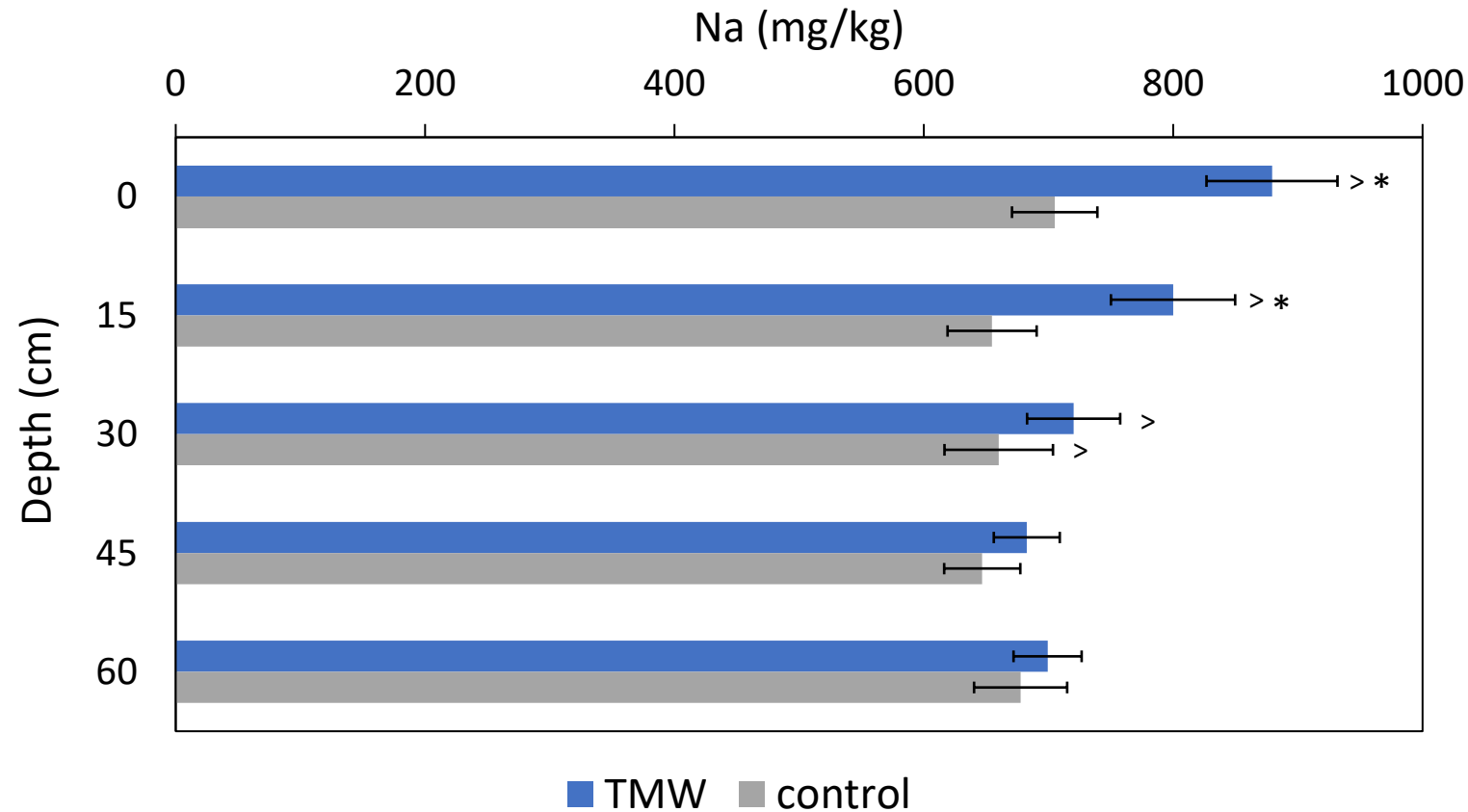
Phosphorus accumulates in the topsoil



Nitrate leaching lower than from grazed pasture

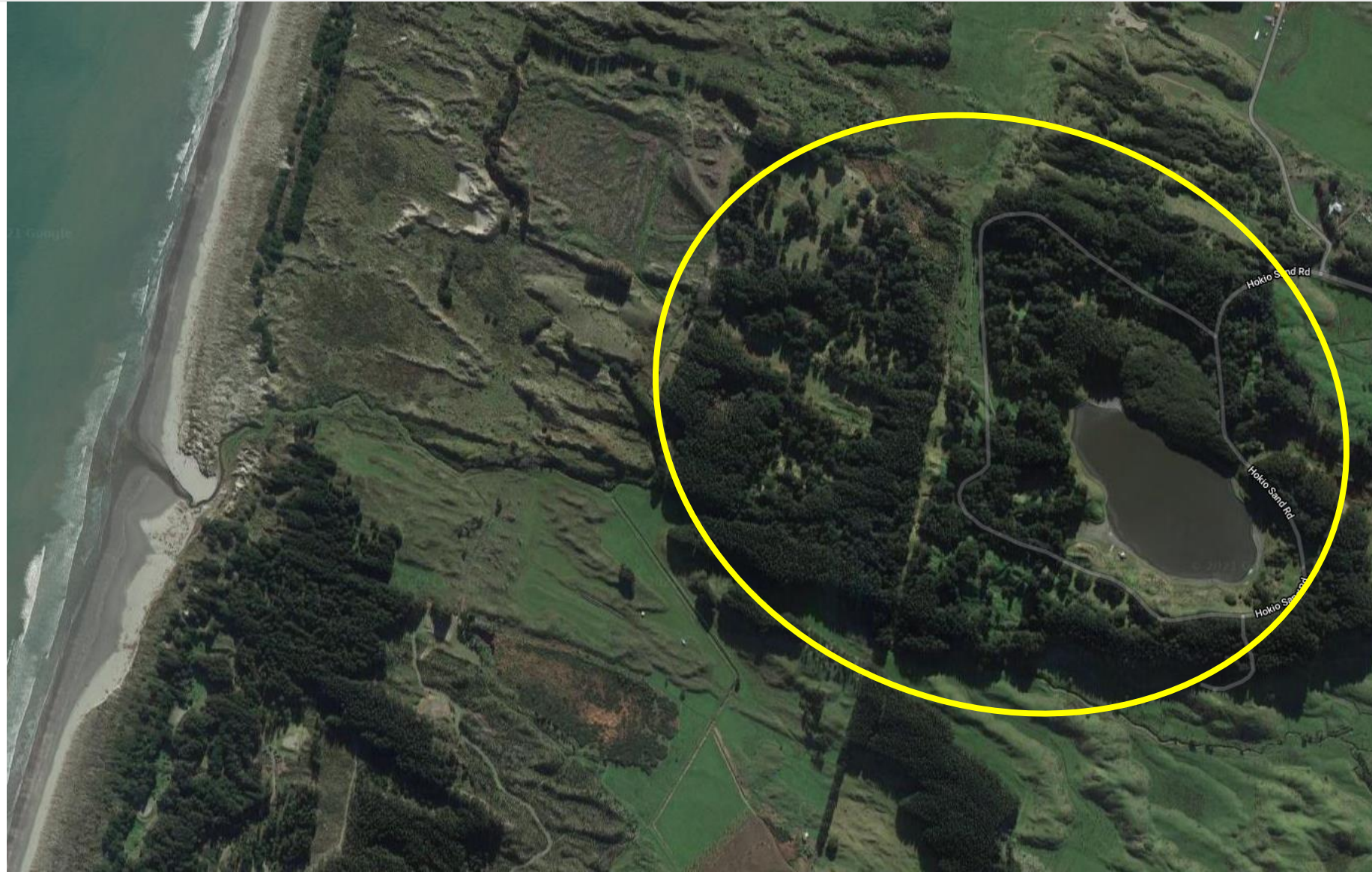
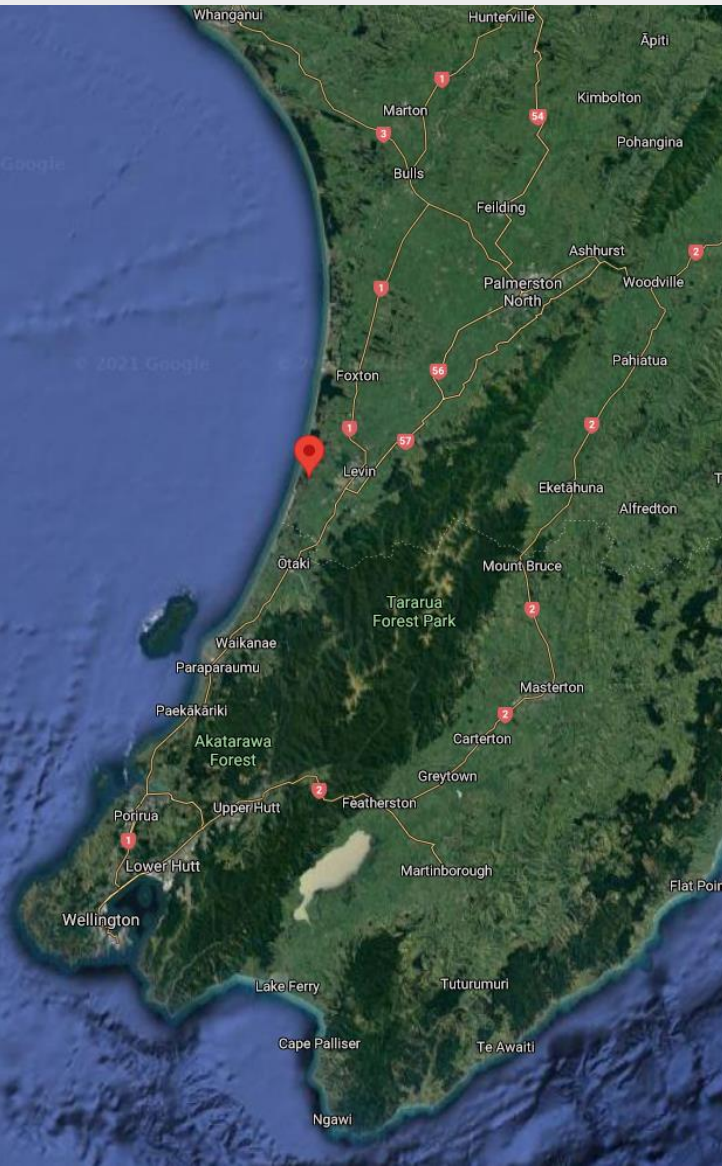


Sodium leaches – soil structure not impaired

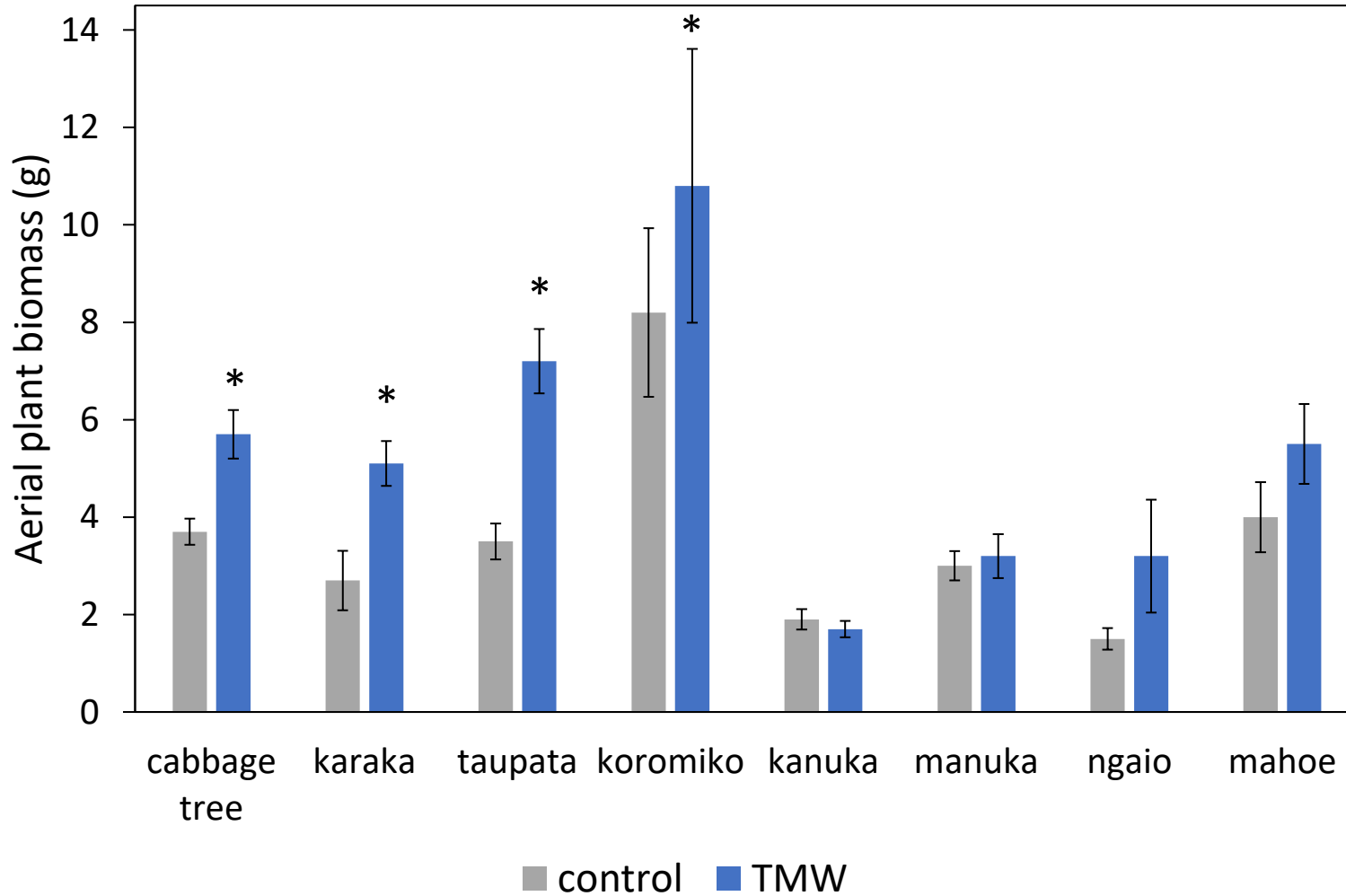


THE POT field trial

4000 mm/yr



Wastewater increases native plant biomass

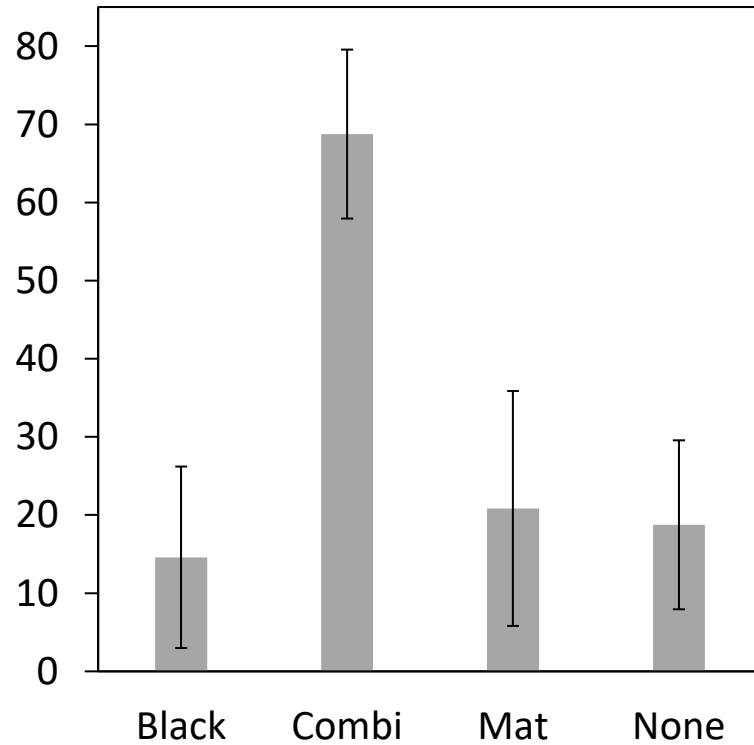


Weed control trial

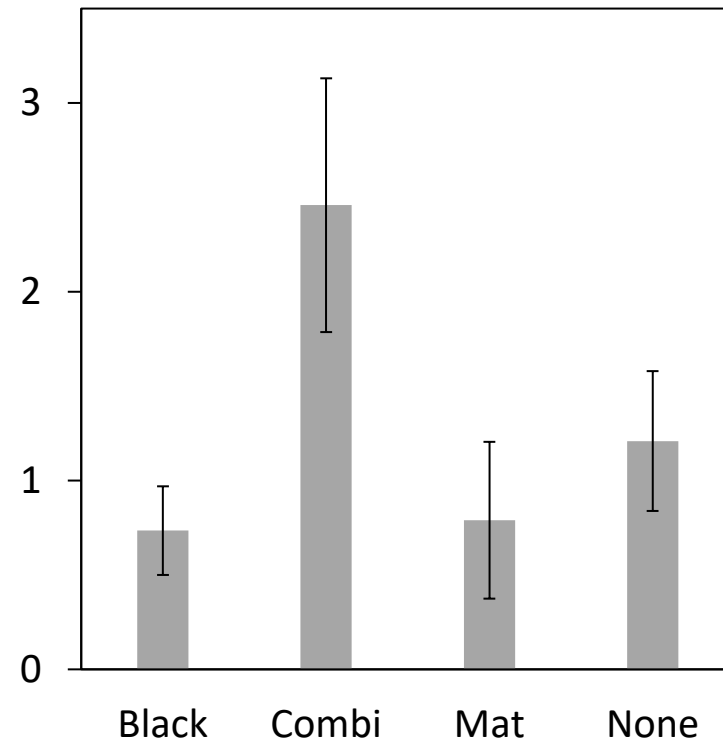


Best survival and health with CombiGuard

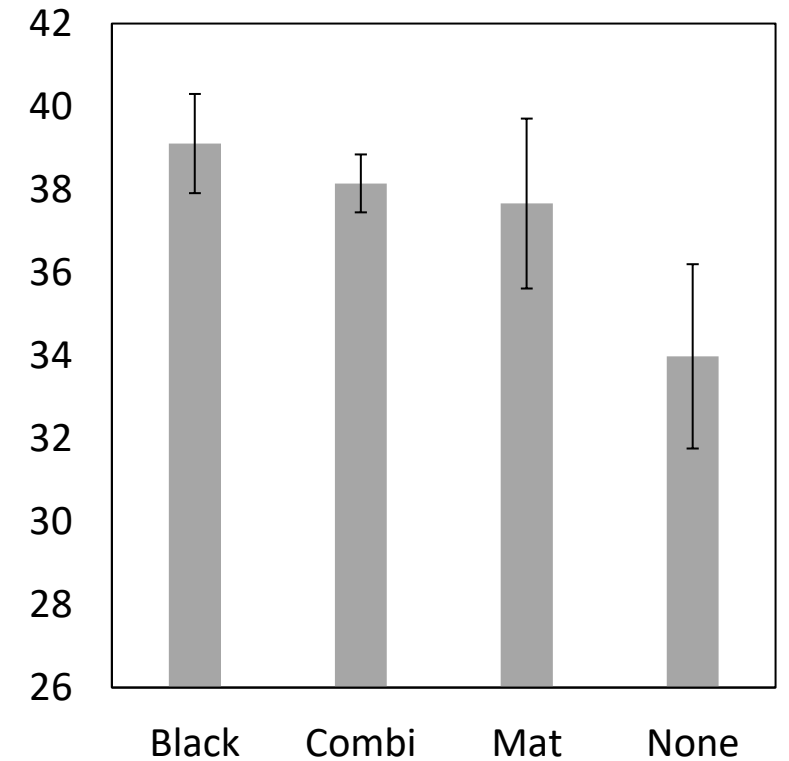
Survival (%)



Health (0 - 5)



Height (cm)



Lysimeters



2019 - 2021



Soil and plant sampling



Conclusions



Acknowledgements



Freshwater Improvement Fund

