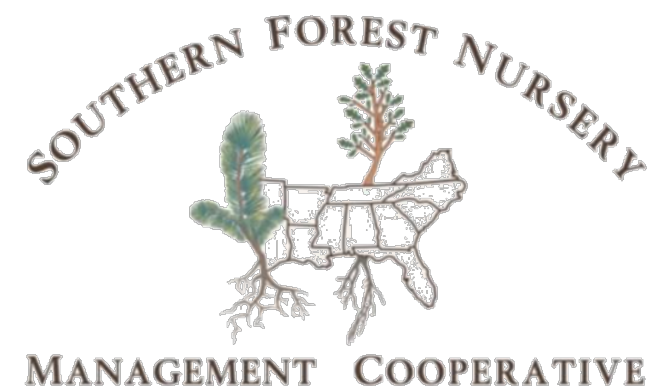




Ellepot study

Tom Starkey and Ryan Nadel



Ellepot

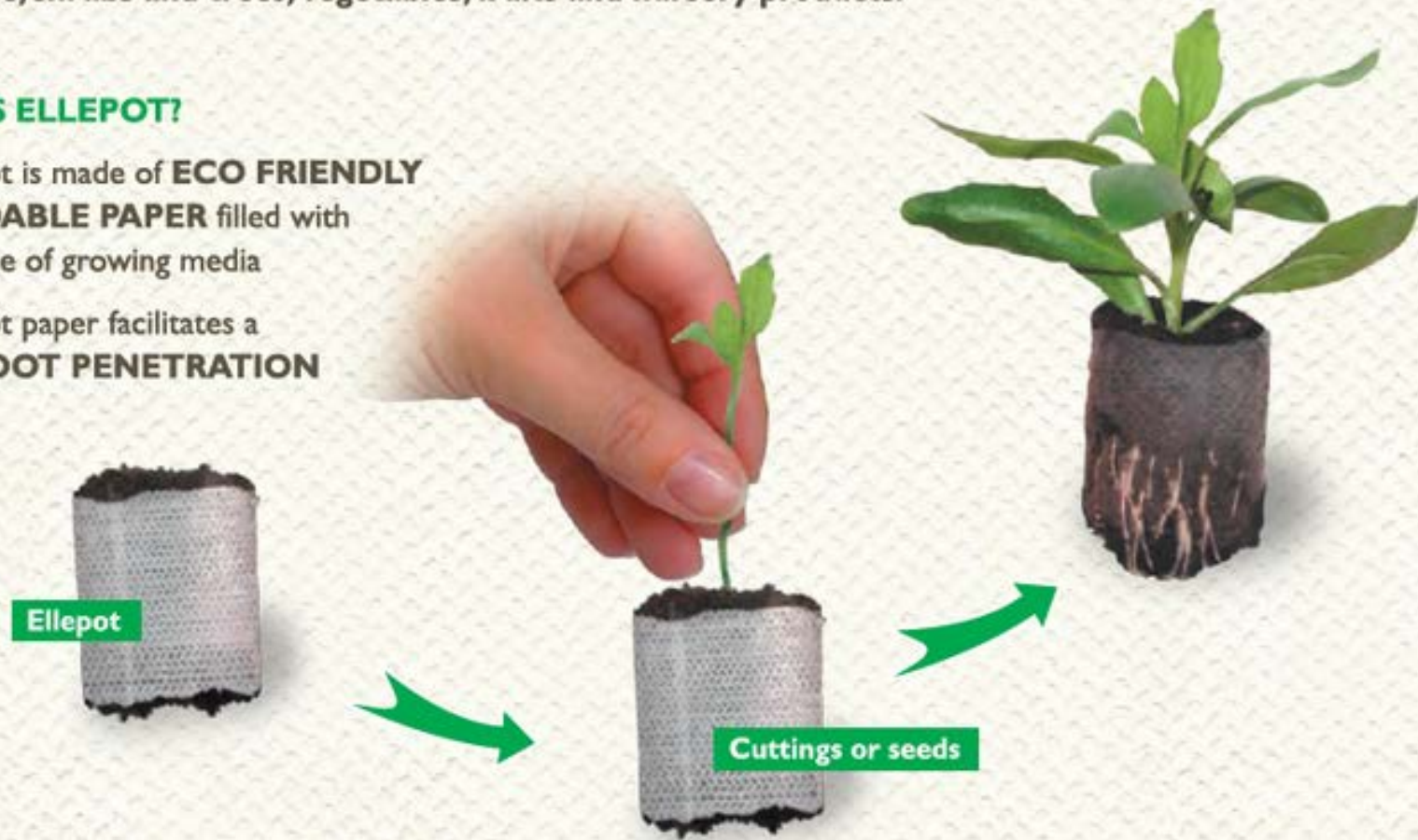
The Ellepot System...

The Ellepot system is a unique propagation system suitable for propagation of cuttings and seeds for flowers, shrubs and trees, vegetables, fruits and nursery products.

WHAT IS ELLEPOT?

The Ellepot is made of **ECO FRIENDLY DEGRADABLE PAPER** filled with your choice of growing media

The Ellepot paper facilitates a perfect **ROOT PENETRATION**



<http://ellepot.dk/ellepotsystem.html>

Study design

- To evaluate two types of Ellepot containers (paper)
 1. White paper
 2. Dark paper (with fungicide)
 3. Control – Hard Plastic container (IFCO 128)
- Examined Seedling Quality:
 1. RCD (Sept, Oct, Nov, Dec)
 2. Height (Sept, Oct, Nov, Dec)
 3. Seedling Grade (All seedlings)
 4. Root Growth Potential (RGP) of seedlings (Sept, Oct, Nov)
 5. Root architecture in Plexiglass Boxes (Nov + 6 months)



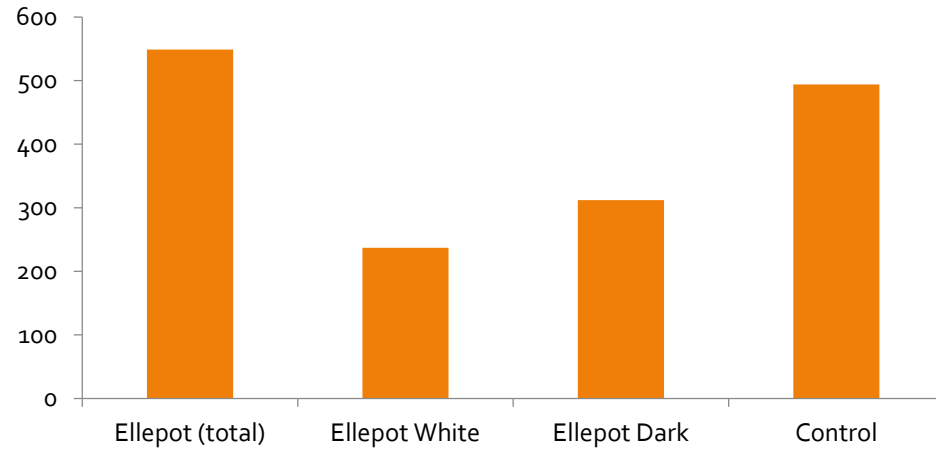


Seedling quality by RCD

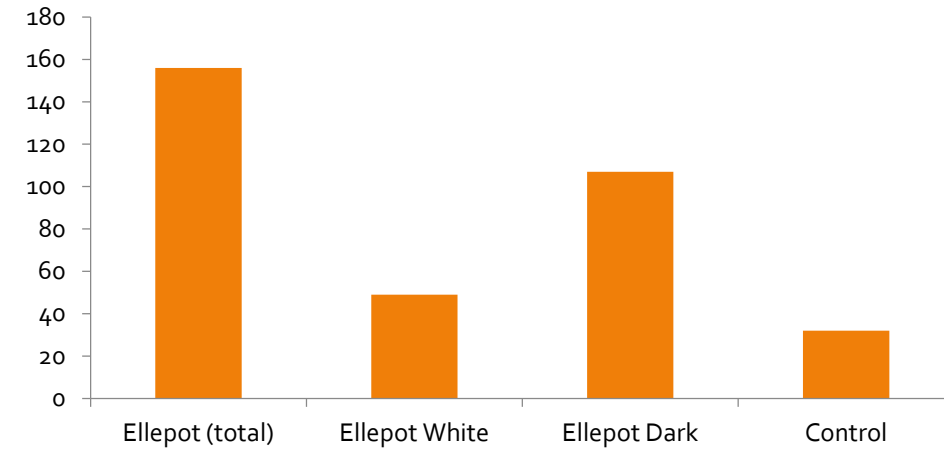
Container Type	N	<u>Culls</u> (<3.2 mm)	Percentage	<u>Grade 2</u> (3.2 - 4.7 mm)	Percentage	<u>Grade 1</u> (>4.7 mm)	Percentage
Ellepot (total)	549	156	28%	335	61%	58	11%
Ellepot White	237	49	21%	158	67%	30	13%
Ellepot Dark	312	107	34%	177	57%	28	9%
Control (IFCO128)	494	32	6%	279	56%	183	37%

Seedling quality

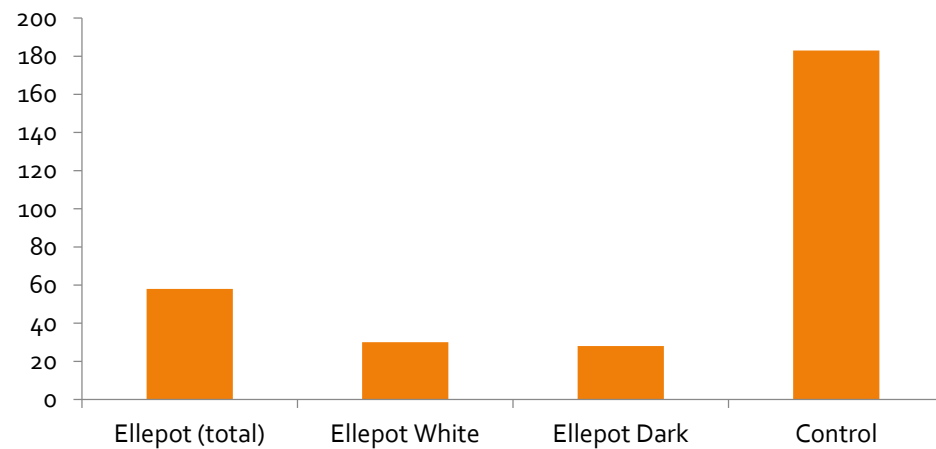
Number of Seedlings



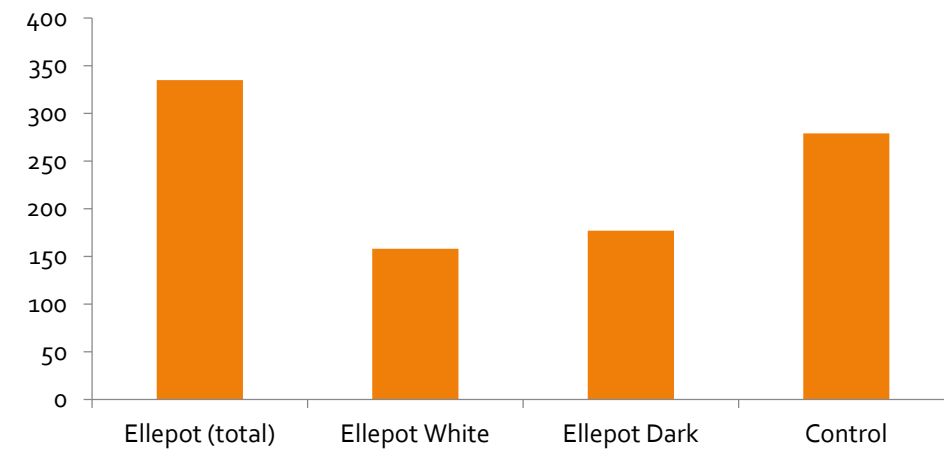
Culls (<3.2 mm)



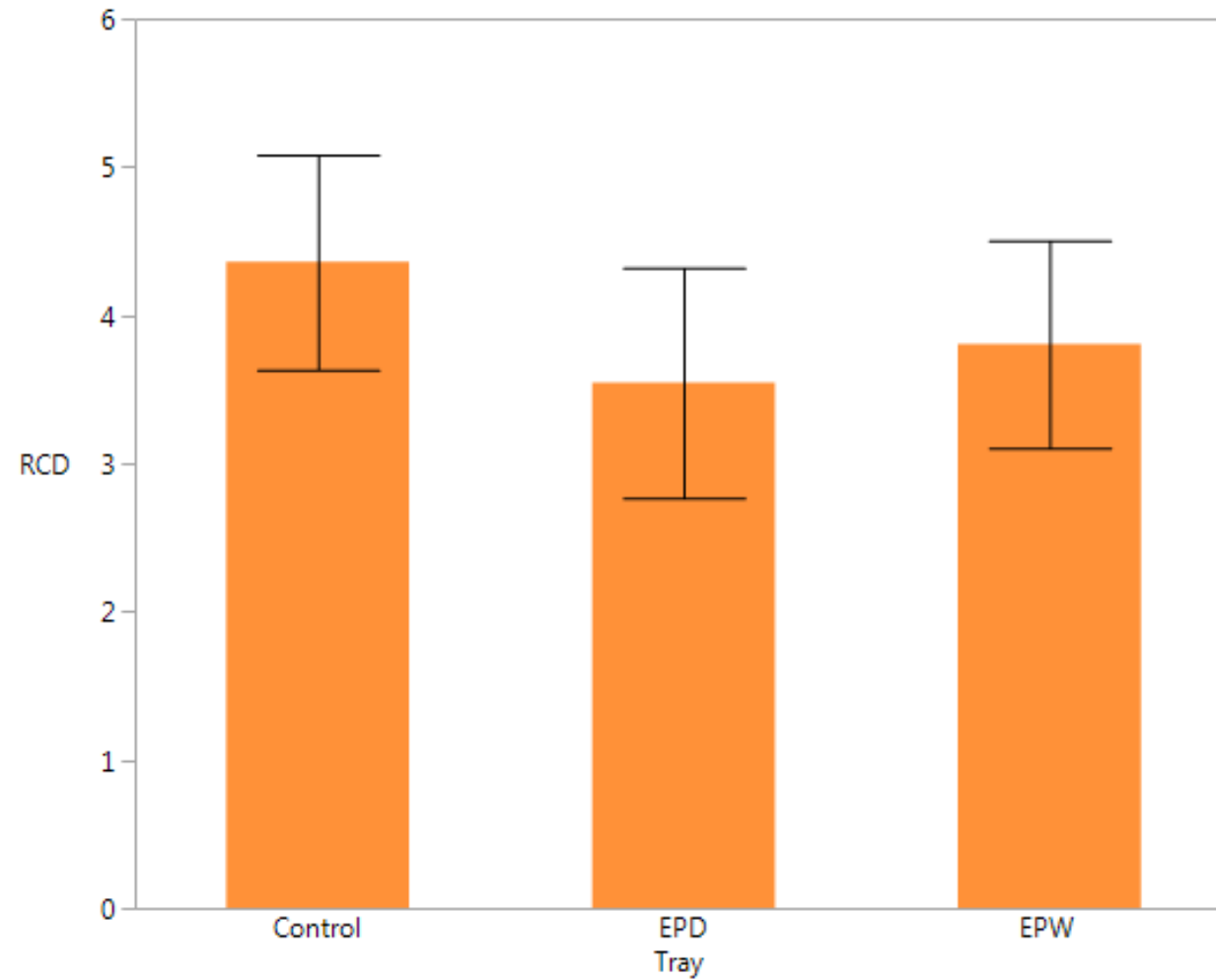
Grade 1 (>4.7 mm)



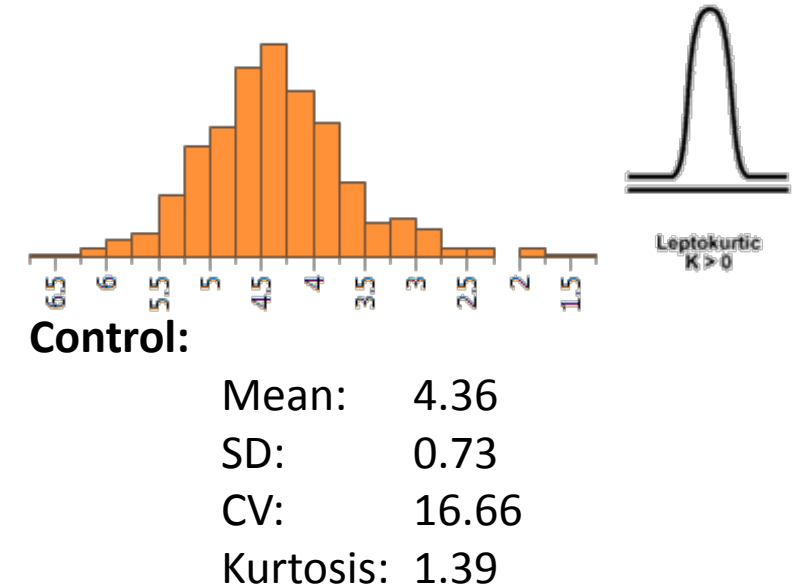
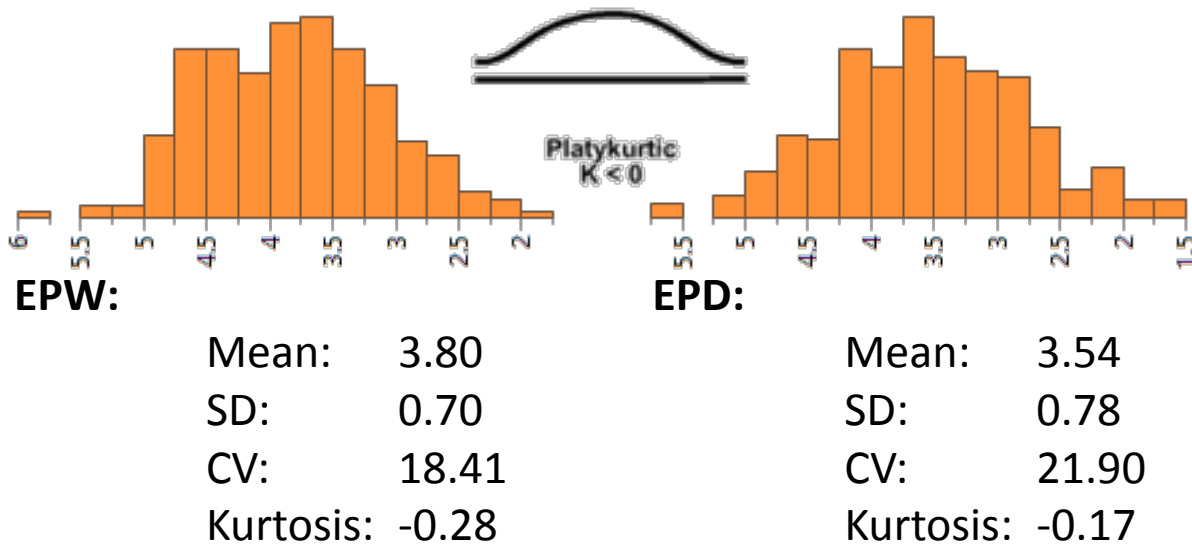
Grade 2 (3.2 - 4.7 mm)



Seedling quality by RCD

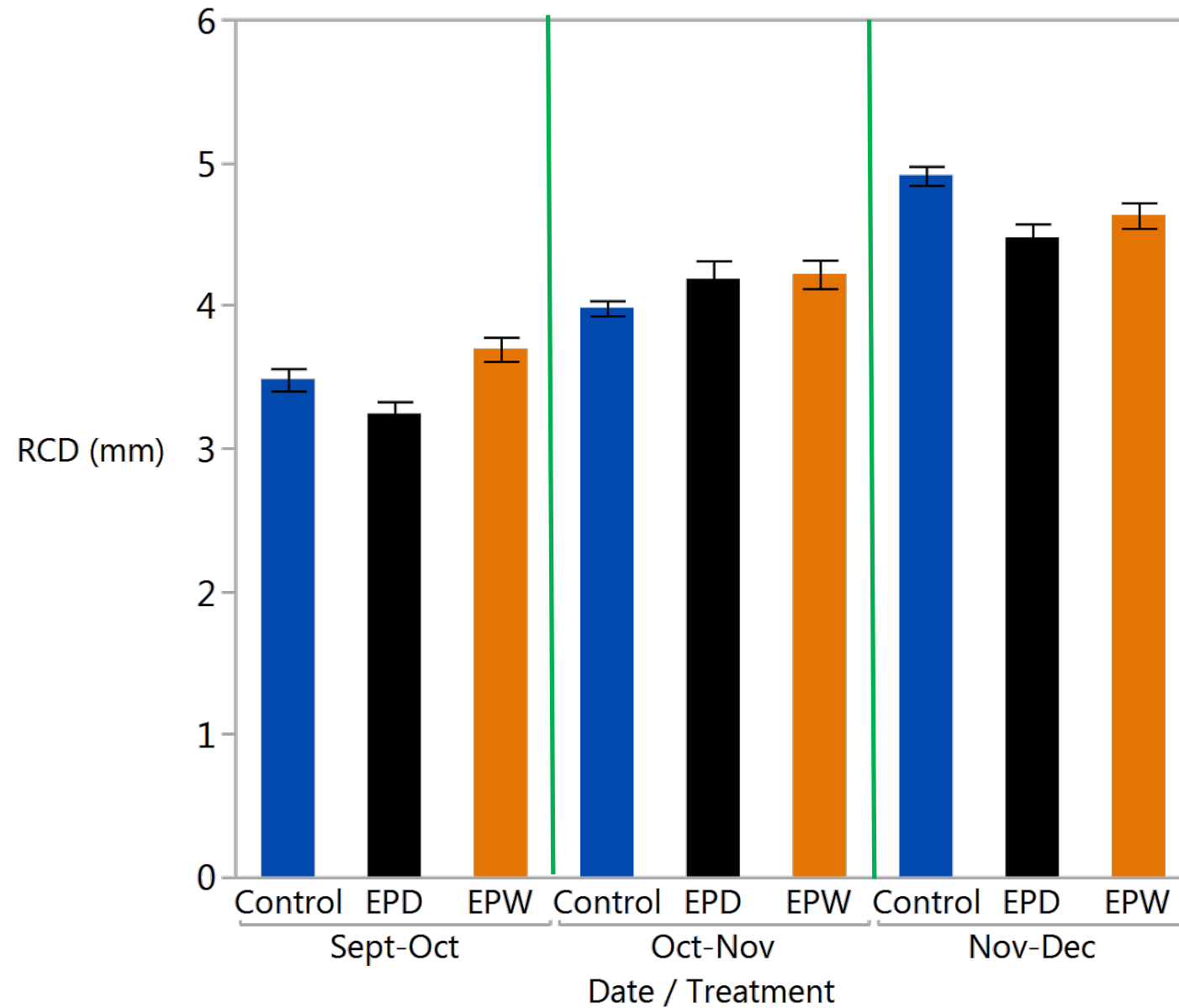


Distribution of RCD

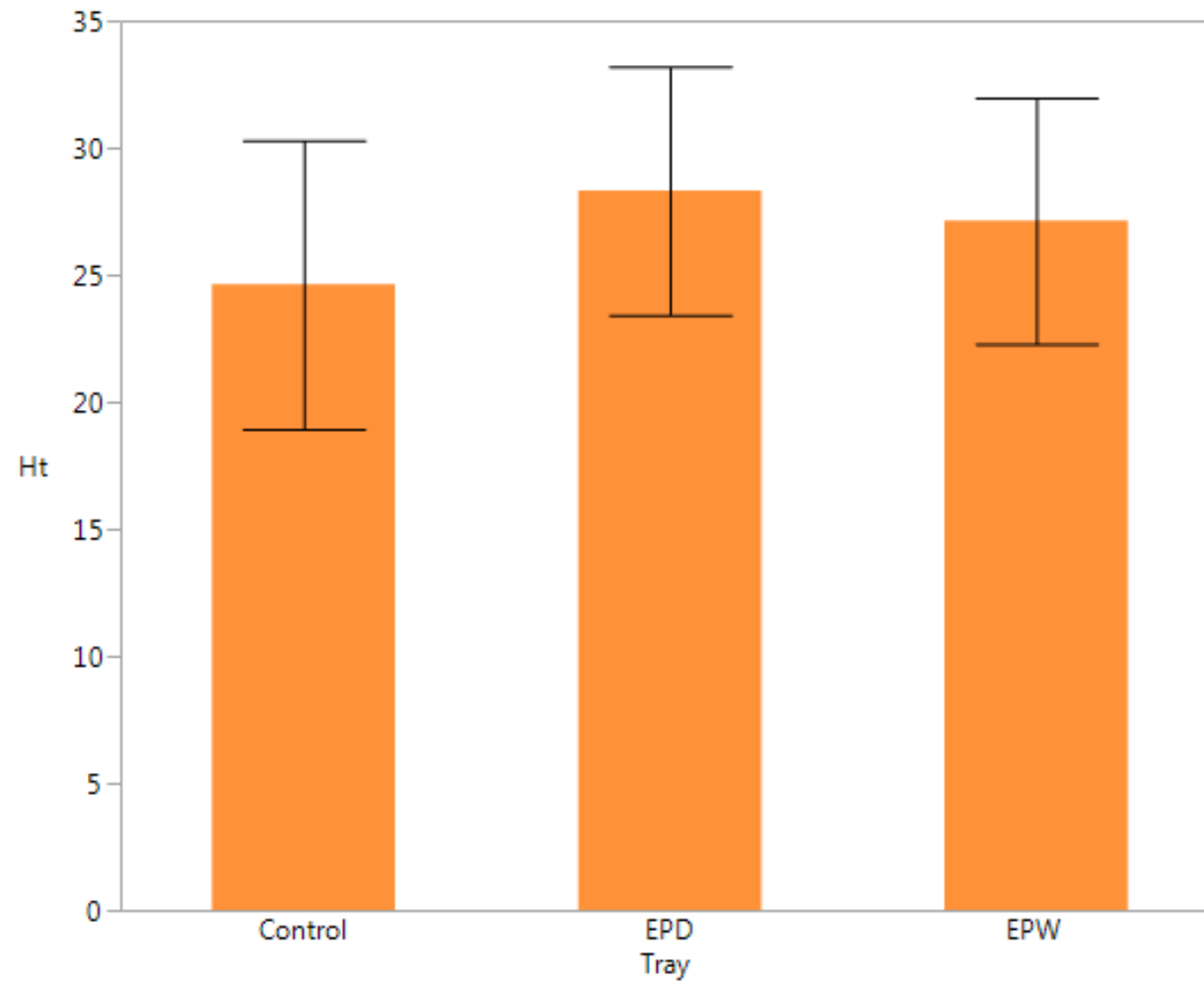


1. Similar standard deviation
2. Different peak for RCD
3. Different shape
 1. More peaks at the center
 2. Flatter tails
4. Summary: Distribution for RCD for the control was narrower (tighter)

RCD overtime



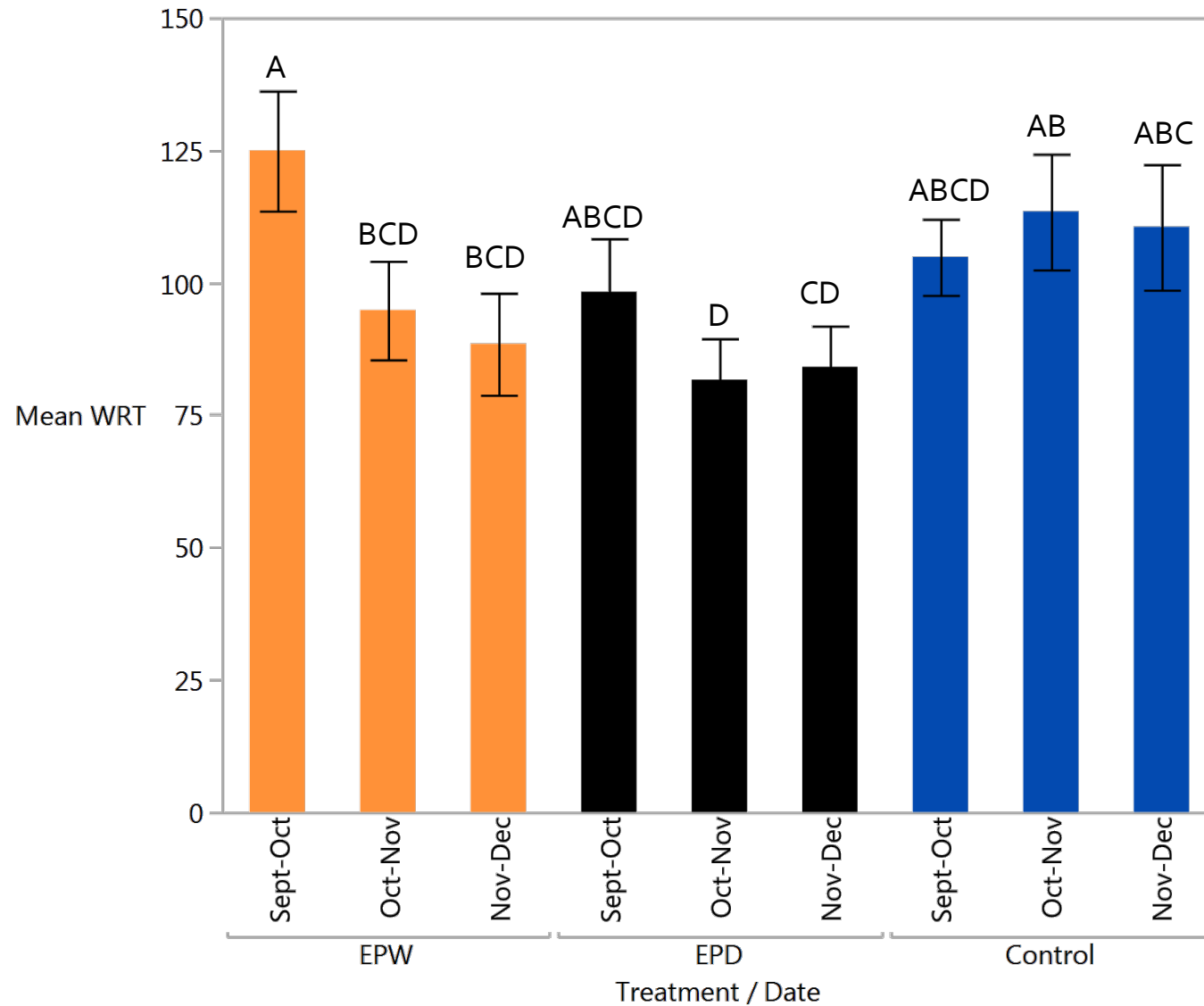
Height

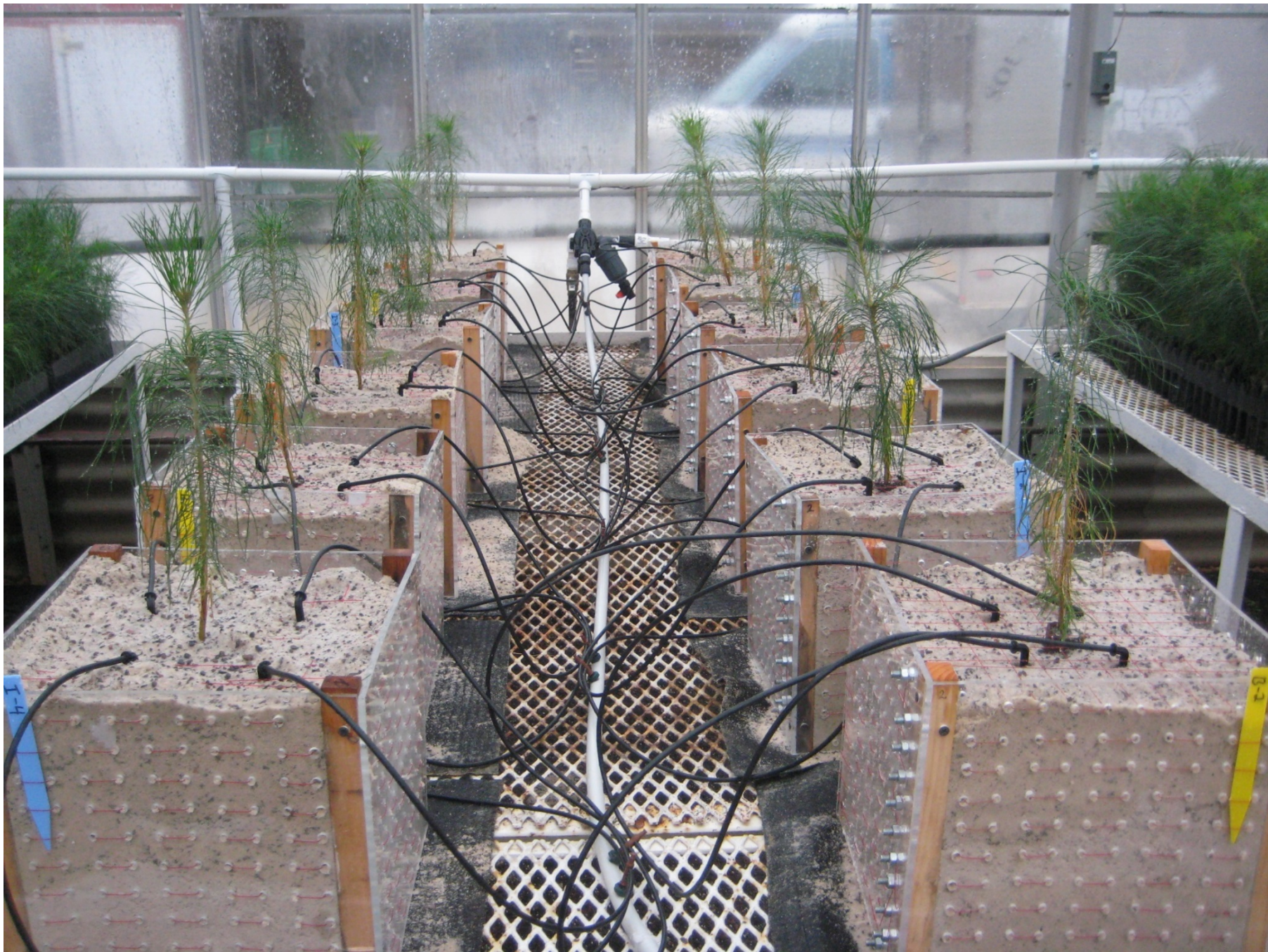


White root growth potential over time (RGP)

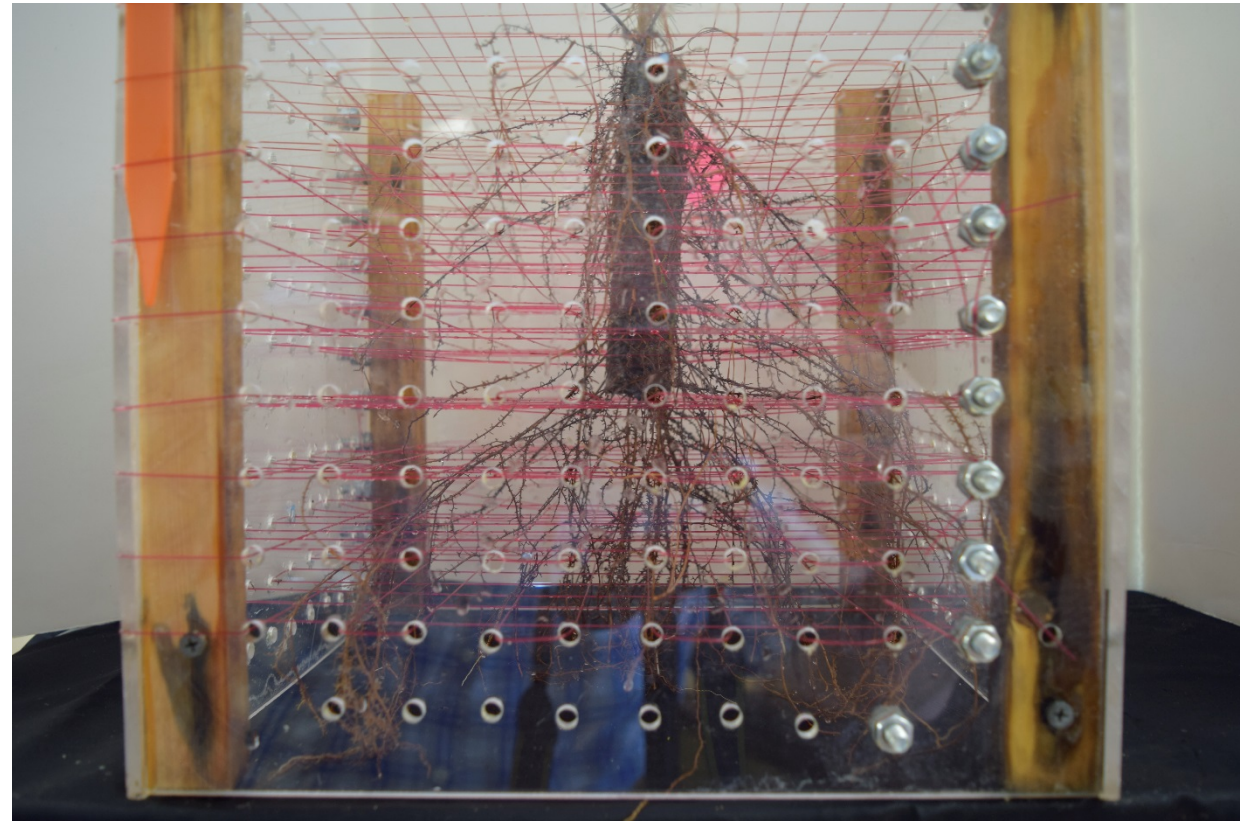
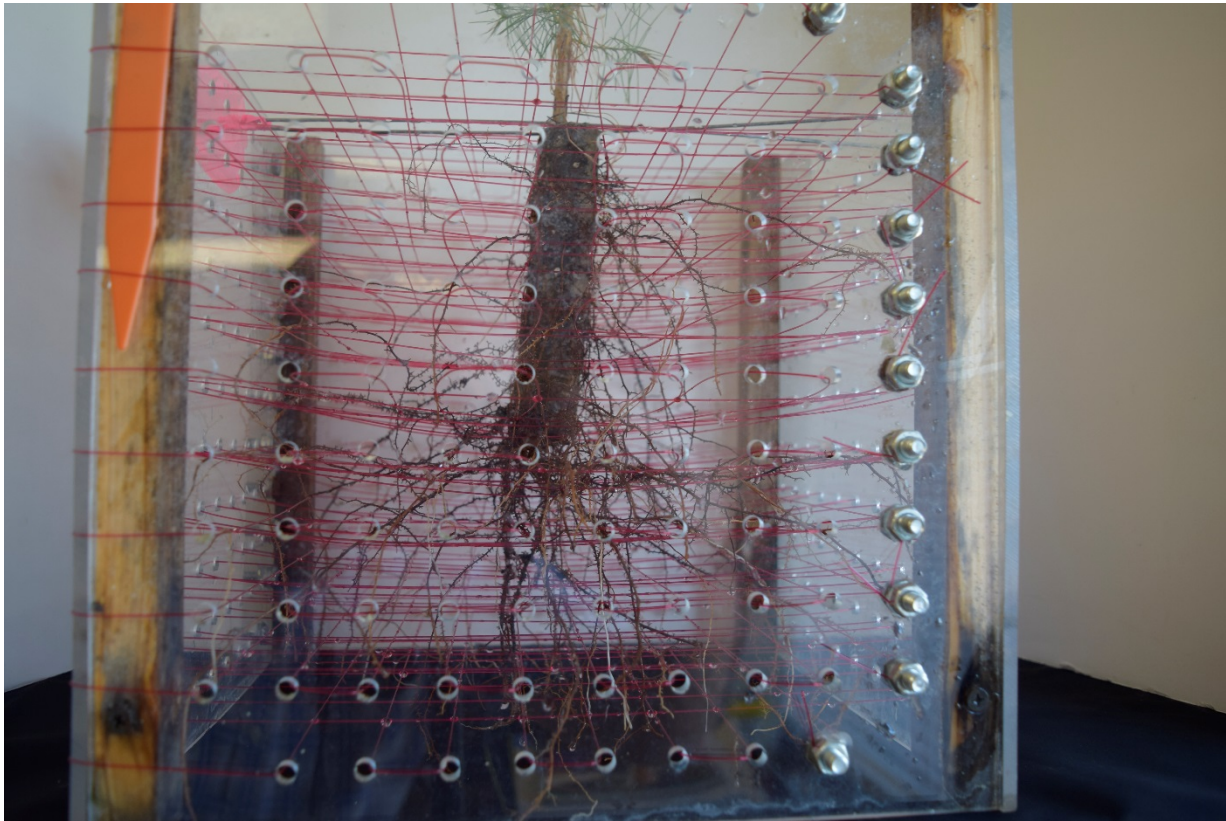


White root distribution over time (RGP)

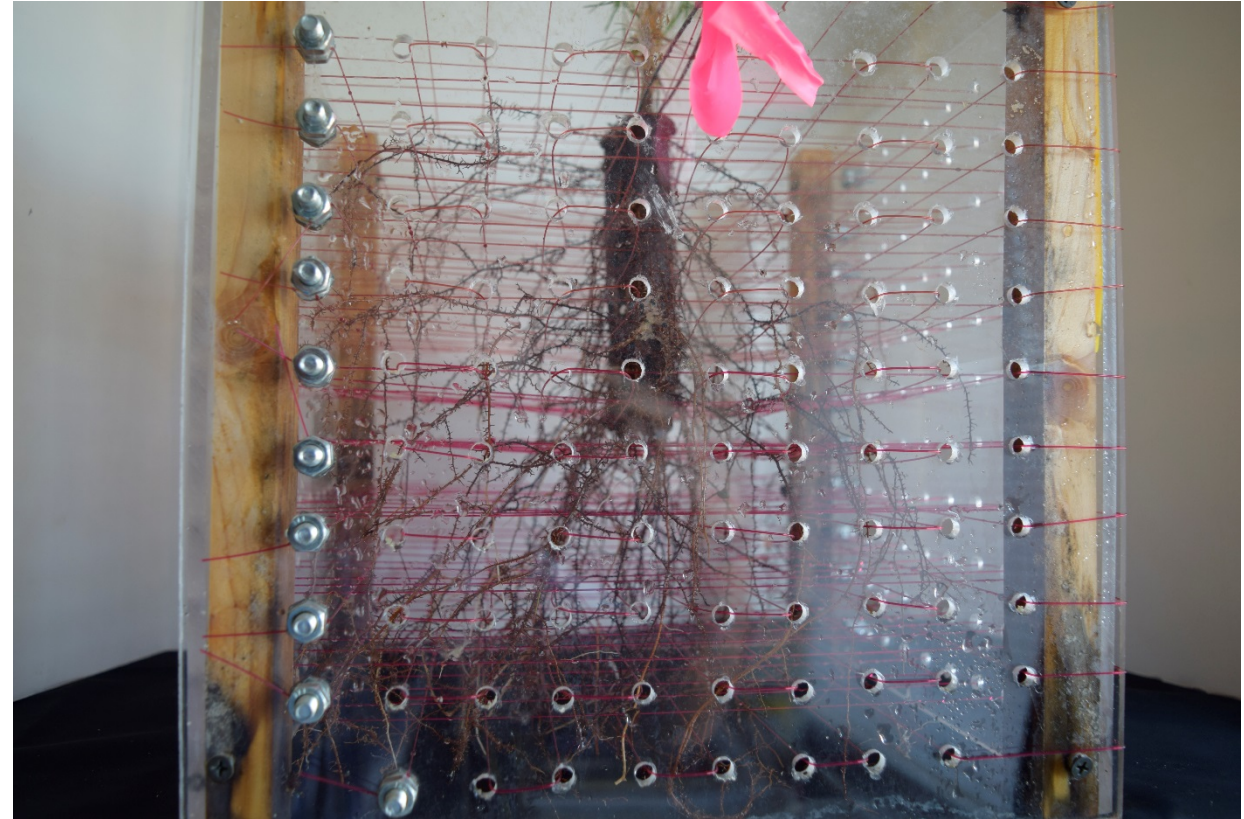
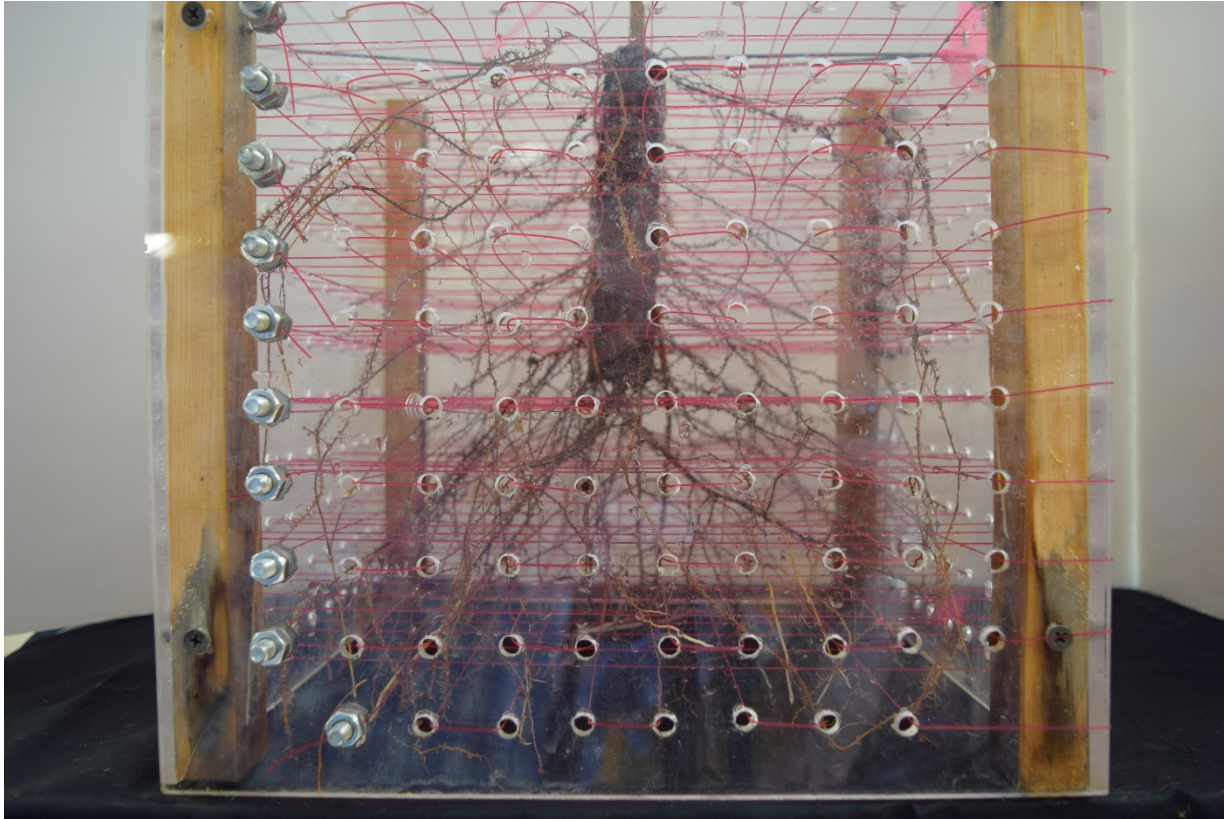




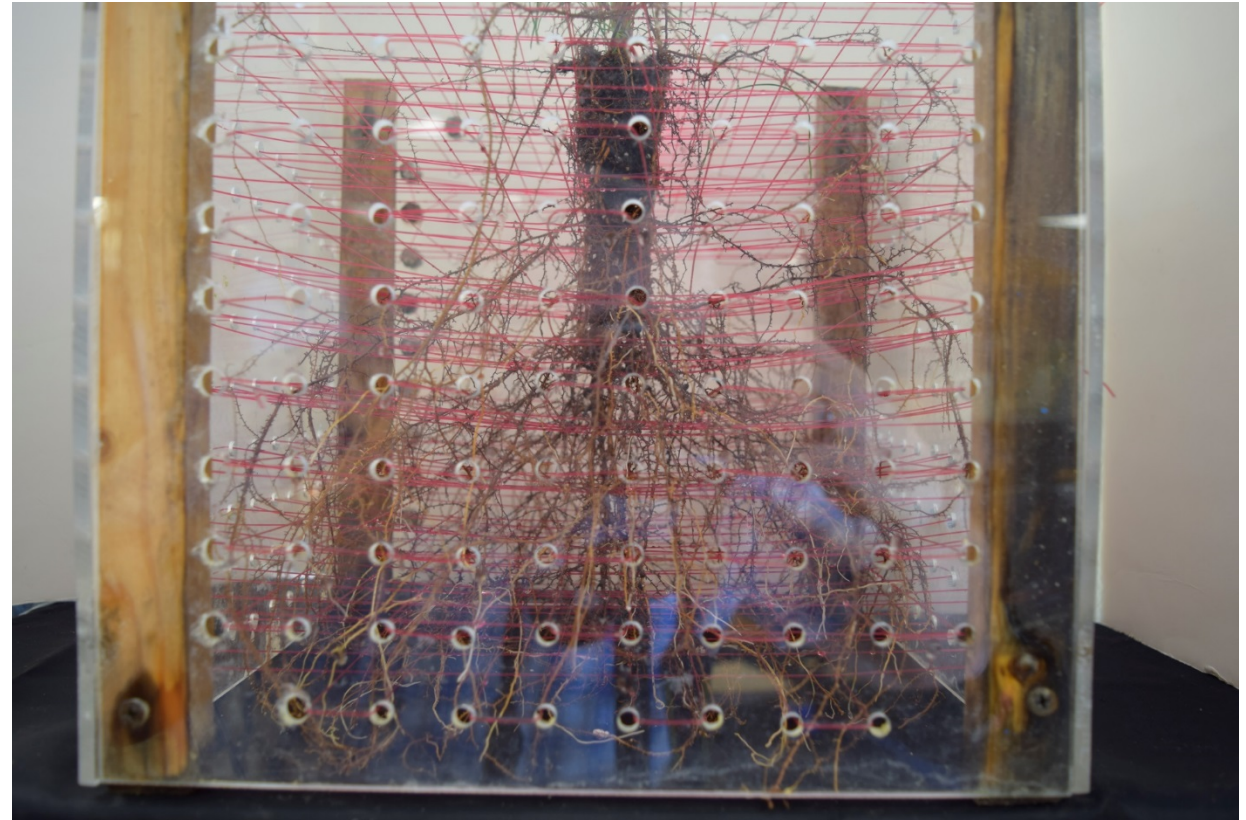
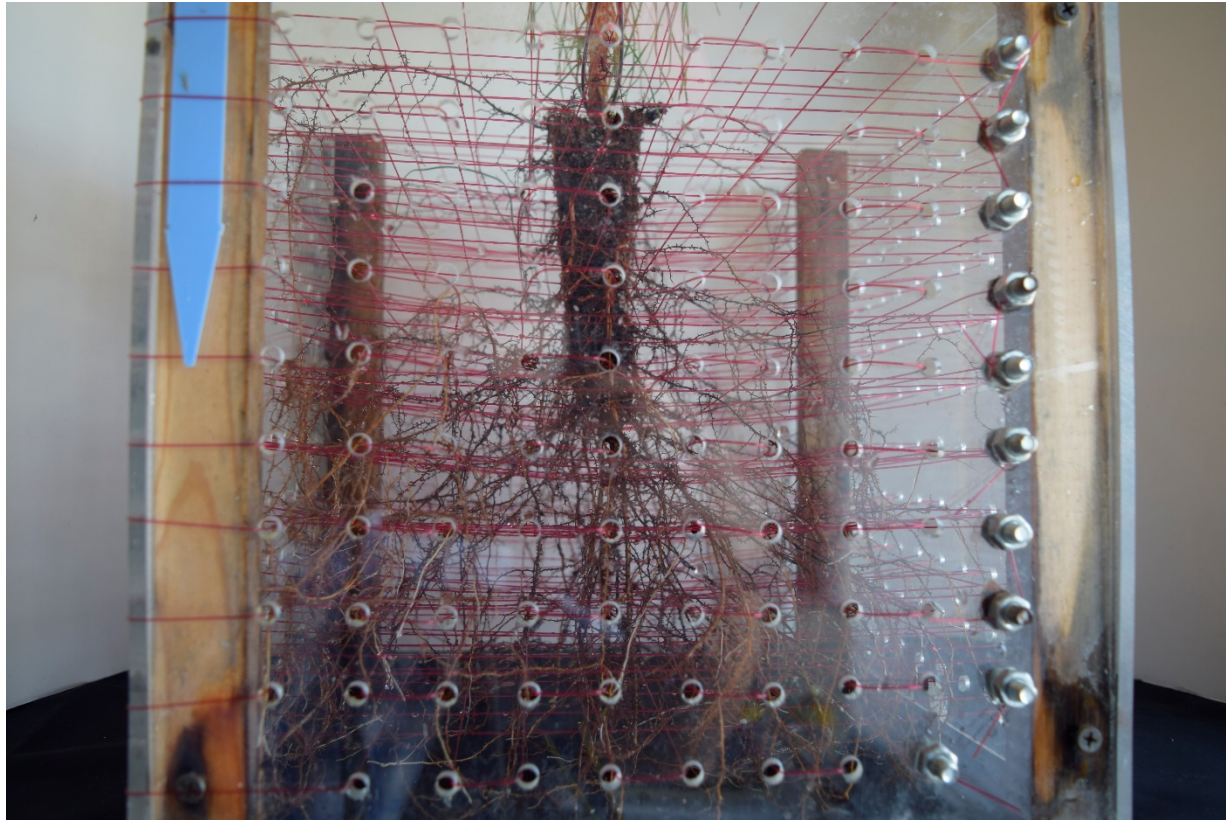
Ellepot White



Ellepot Dark

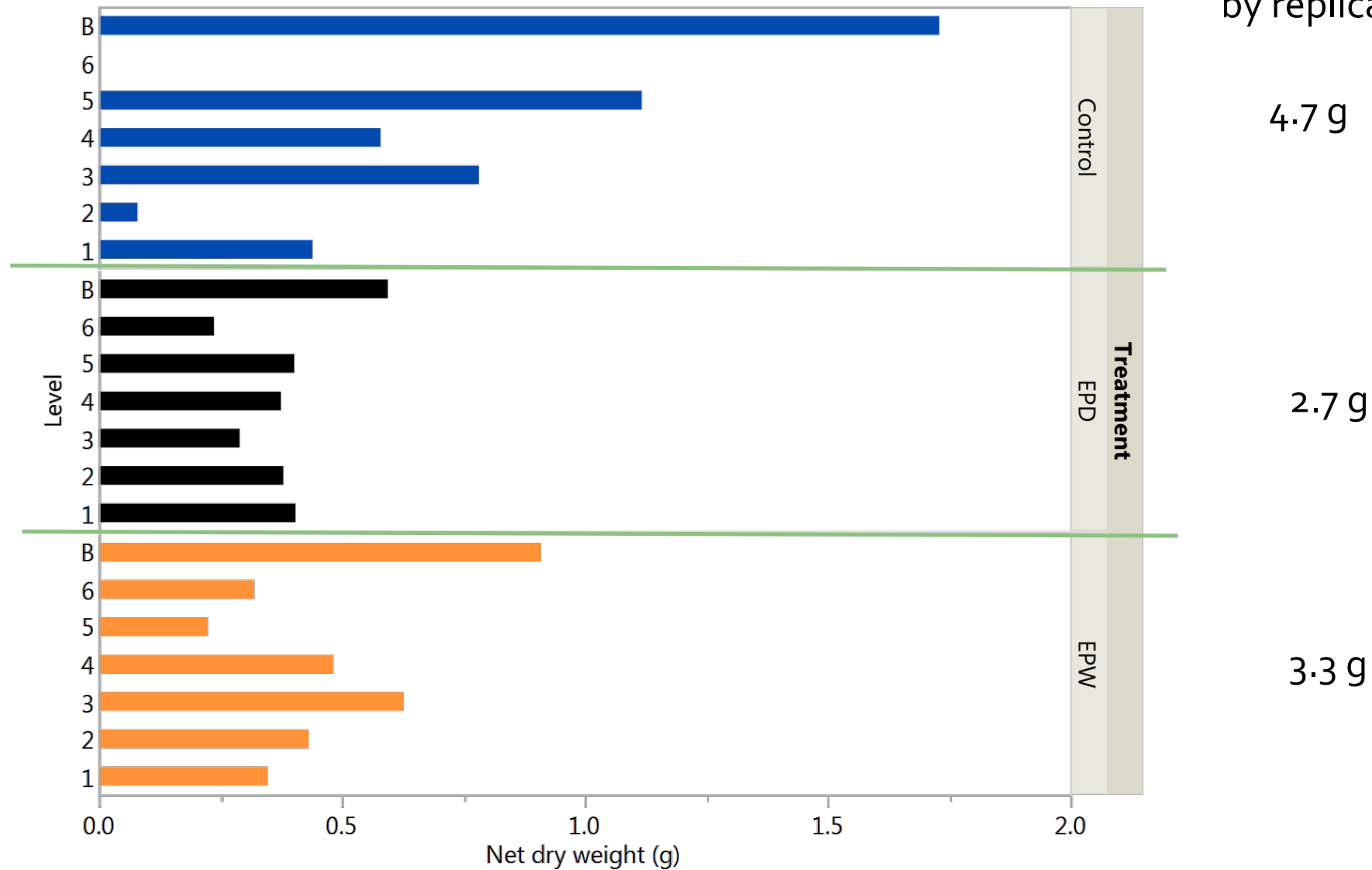


IFCO - Control



Sum of root weight per level

Average total
root weight
by replication



Things to consider for future studies

- The container required to hold the Ellepot needs improvement for better root growing
- There must be a method to reduce inter-cell growth of roots
- Impact of RGP when one increases the Ellepot volume from 98 mL to that of the control 110mL
- Greenhouse vs Outside and its impact of root pruning