

# fuelinex draft manuscript

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## Abstract

## 1 Introduction

## 2 Materials and Methods

### 2.1 Species selection

Acma, Alru, Bepa, Prvi, Quma were purchased from Peel's nursery and arrived on \*\*\* at Totem Field Studios (\*\*\*coordinates). Alru is a fast growing species and they already arrived taller than the other species. We decided to cut a segment from the saplings and plant them in bare soil. See below for more info. Acne, Pist, Poba, Segi were species that were purchased in 2022 for 2023 Phaenoflex's experiment. We selected randomly these tres. At the time, these species were not used because:

- Acne: root system very small (they came in carrots compared to other trees that came in pots)
- Pist: smaller than other species
- Poba: after they flushed, then they were repotted and lost their leaves.
- Segi: smaller than other species

Again, for the same reason as the Alru, we took cuttings from Poba and replanted them in soil with the following methodology. The cuttings were stored in climate chambers with the corresponding temperature (see Hobo loggers) from February 13, 2024 to Feb 20, 2024. The tree cuttings were planted at that time.

Notes from Justin: Assuming that all the information prior to planting is already noted down (e.g. what temperature the cuttings were stored at etc.) 30 cm long shoot tip cuttings of both red alder and balsam poplar were soaked at the cut wound for 15 minutes in a solution of 20 mL indole-butyric acid 0.4% (Wilson Liquid root stimulator) diluted in 2 litres of warm tap water. (0.004%

28 concentration). 180 1-gallon pots were filled up to 1 inch from the lip with pre-moistened peat-based  
29 potting mix containing large pumice chunks. Soil was pressed firmly to compact. Cuttings were  
30 placed into the soil at the depth such that pre-drawn paint lines could still be visible just above  
31 the soil surface.

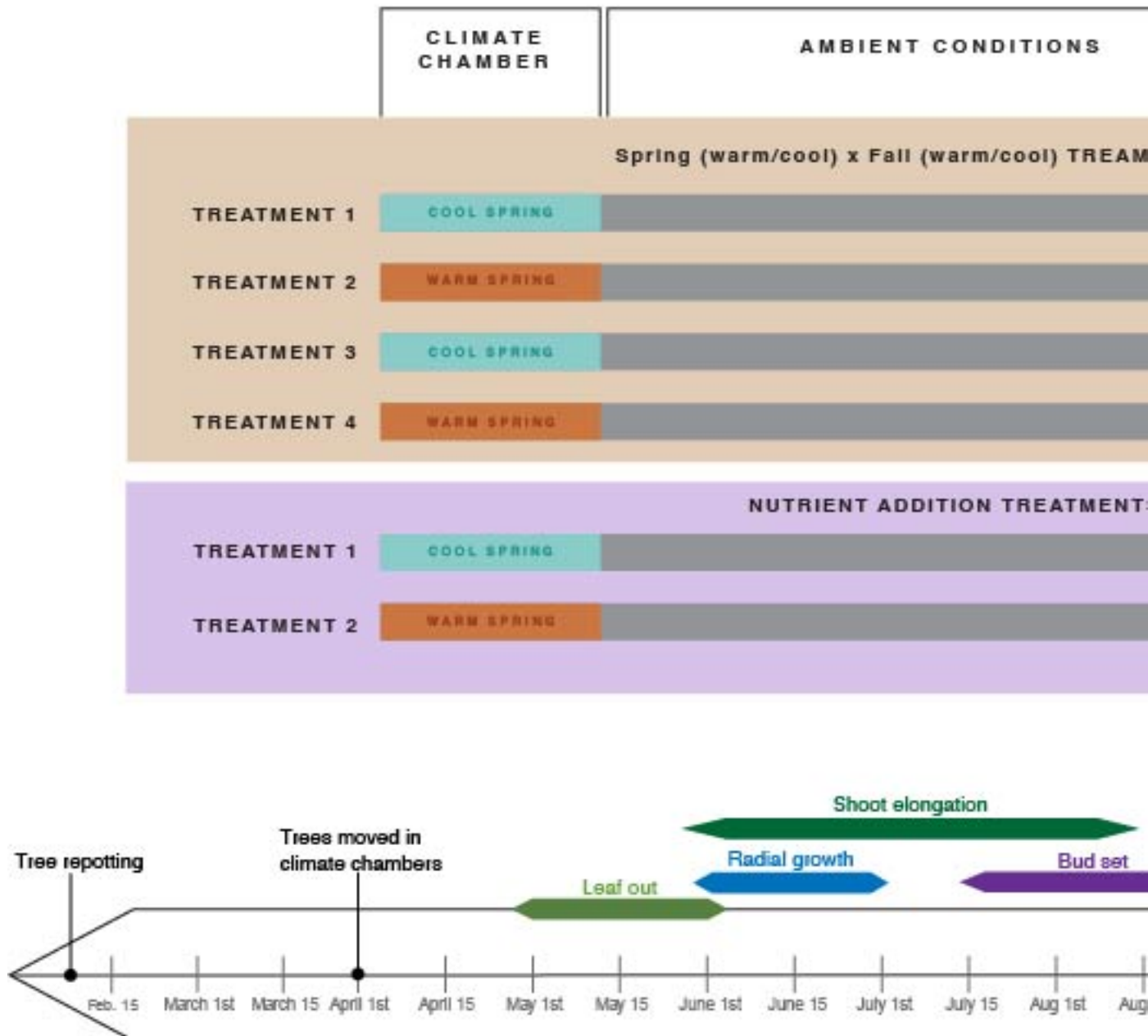
## 32 **2.2 Tree measurements**

33 The following measurements were performed from Feb 7, 2024 to Feb 11, 2024. 1. Using red paint,  
34 we marked the trees on their trunk at 1 inch from the soil. 2. The diameter was measured at the  
35 top of that marked. 3. Height measurements were also done using these marks.

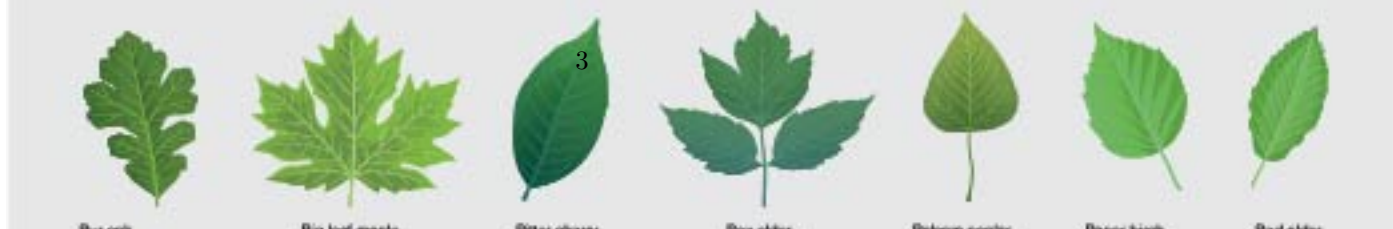
## 36 **2.3 Fertilizer**

37 Using fertilizer premix from UBC's garden, I diluted it to make it less concentrated.

## 2024 FUELINEX EXPERIMENT



### DECIDUOUS TREES



40 **2.5 Statistical Analysis**

41 'sectionResults

42 **3 Discussion**