



Challenges in Beech (*Fagus sylvatica*) seedling propagation

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2023 September 26th

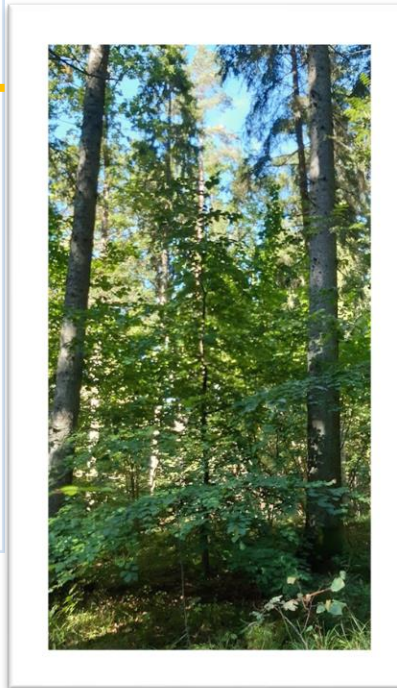


26-28th September, 2023, Vytautas Magnus University Agriculture Academy, Lithuania

Fagus sylvatica is introduced in Latvia by research trials and orchard trees

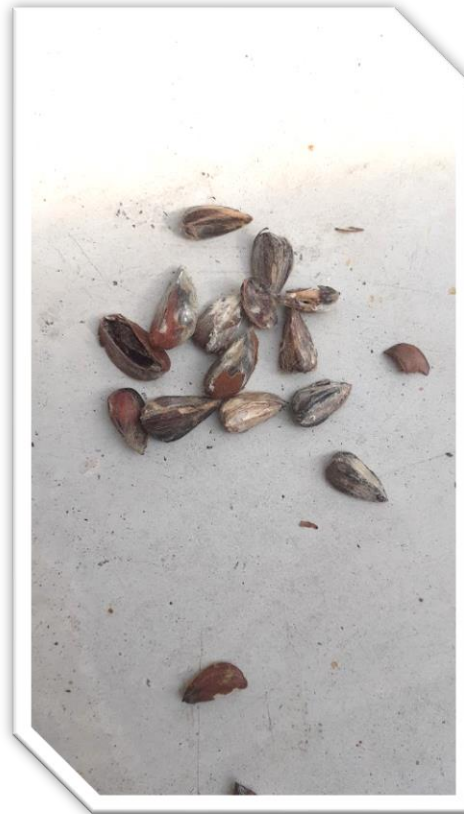
- Beech performing well.
- Beech has successful natural regeneration.
- But stem quality in existing stands are different!

Fagus sylvatica stand area trend is stable:



Quality of seeds:

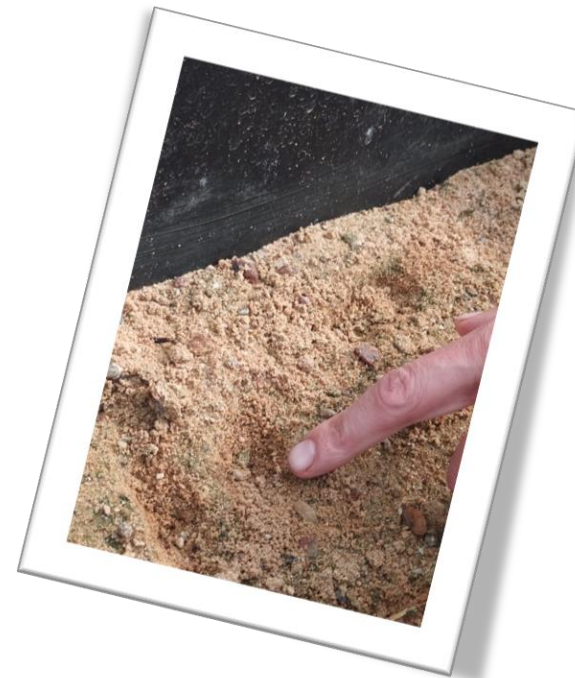
- Main problems are insects, fungi, later on vermin.



Stratification of «local seeds» in natural environment



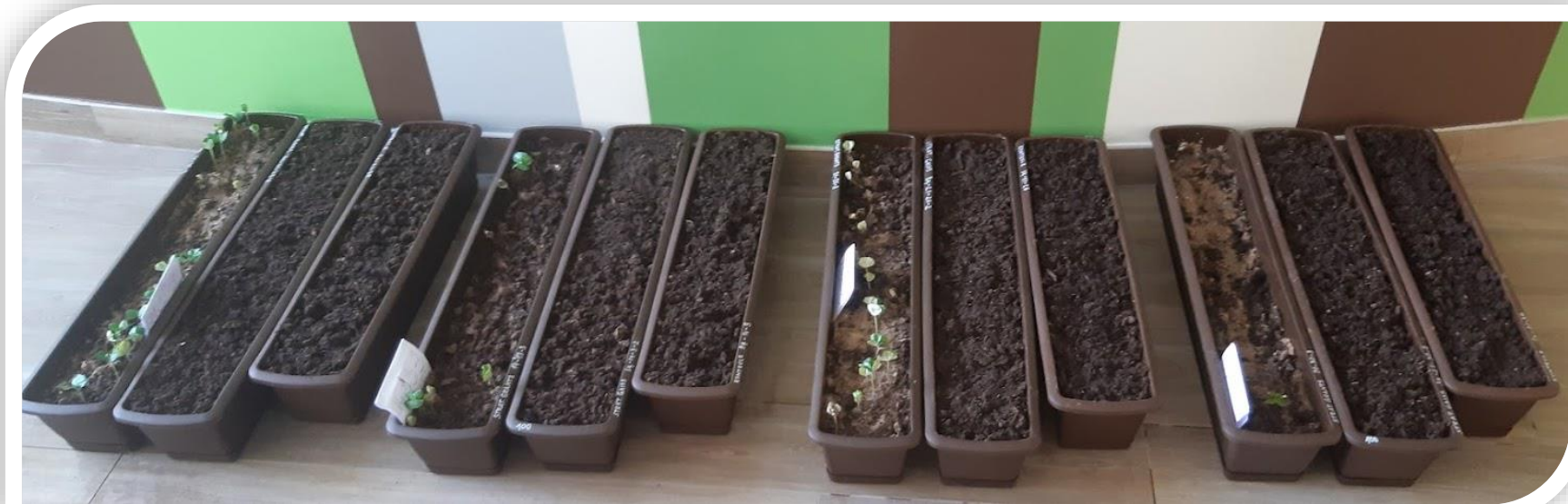
- Sand, gravel and mix of both with peat.
- The best results in peat mix – at least some seeds germinated.



Stratification of «local seeds» under refrigeration



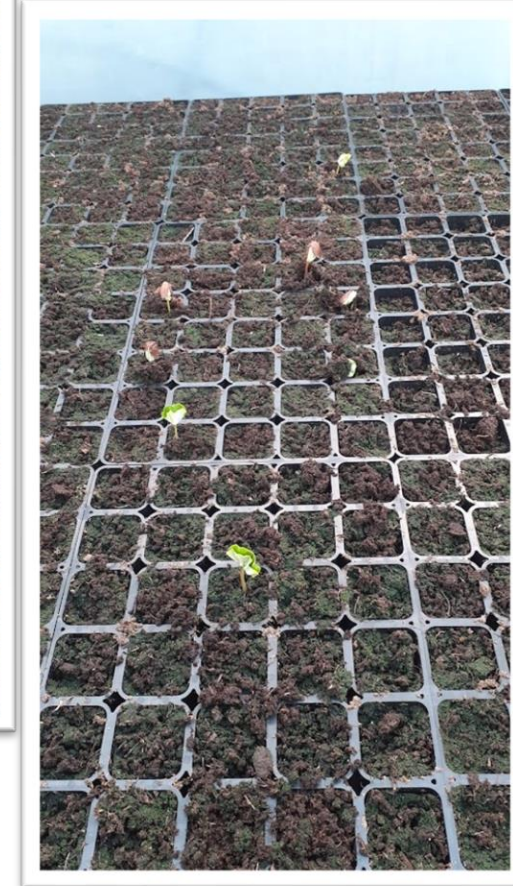
- Seeds stored in:
 - plastic boxes with wet gravel
 - dry paper bags
- Stratification:
 - January ... April ~ 12 weeks
- Started germinate in beginning of April.



First experimental containerized seedling propagation



- Seeds from:
 - Denmark
 - Poland
- Stratification environment:
 - In cold room and paper bags
 - In cold room plastic bags, gravel
 - Stratification period:
 - 2, 4, 6, 8, 10, 12 weeks.
- Different size containers tested as well.



Conclusions



- ✓ The best results were obtained by sowing seeds collected in Latvia, stored in wet gravel, stratified at a temperature of +4 - +6 degrees Celsius January – April.
- ✓ Seedlings are best grown in deeper containers.



Development of technology for beech planting stock production



Let`s see what we will get in next year!



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