

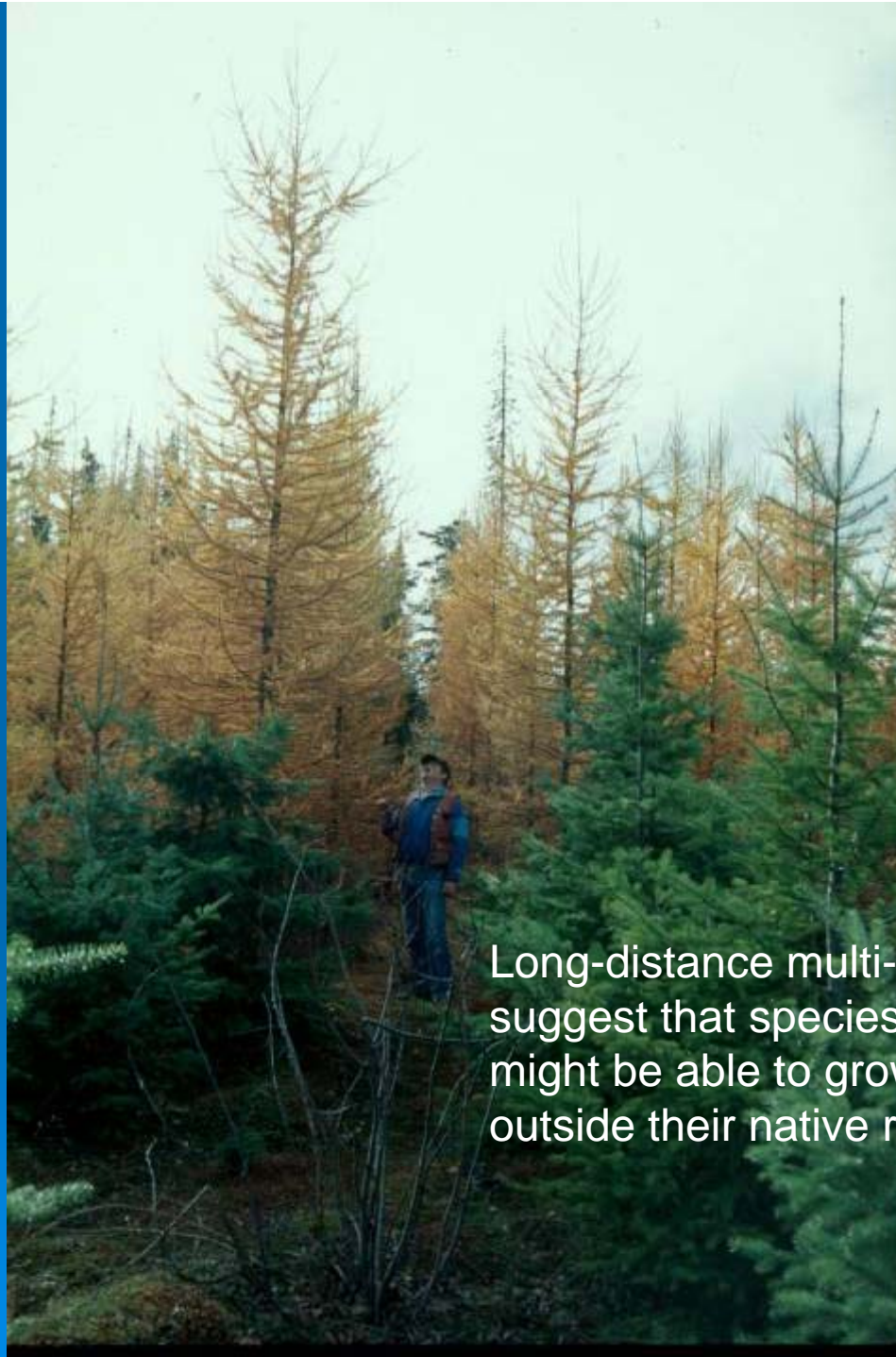
# British Columbia's Assisted Migration Adaptation Trial

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ITAC  
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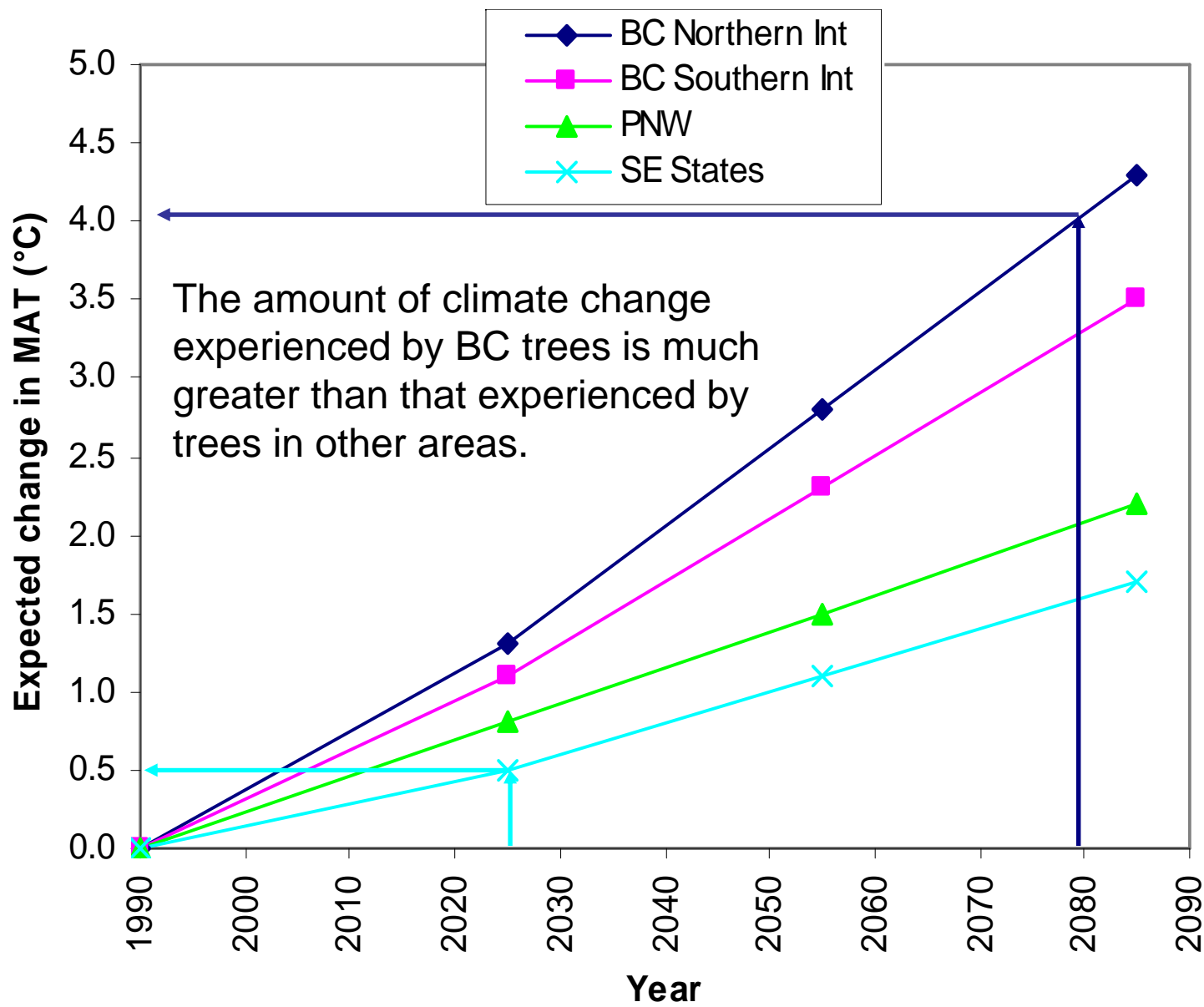


Multi-species trial  
Date Creek

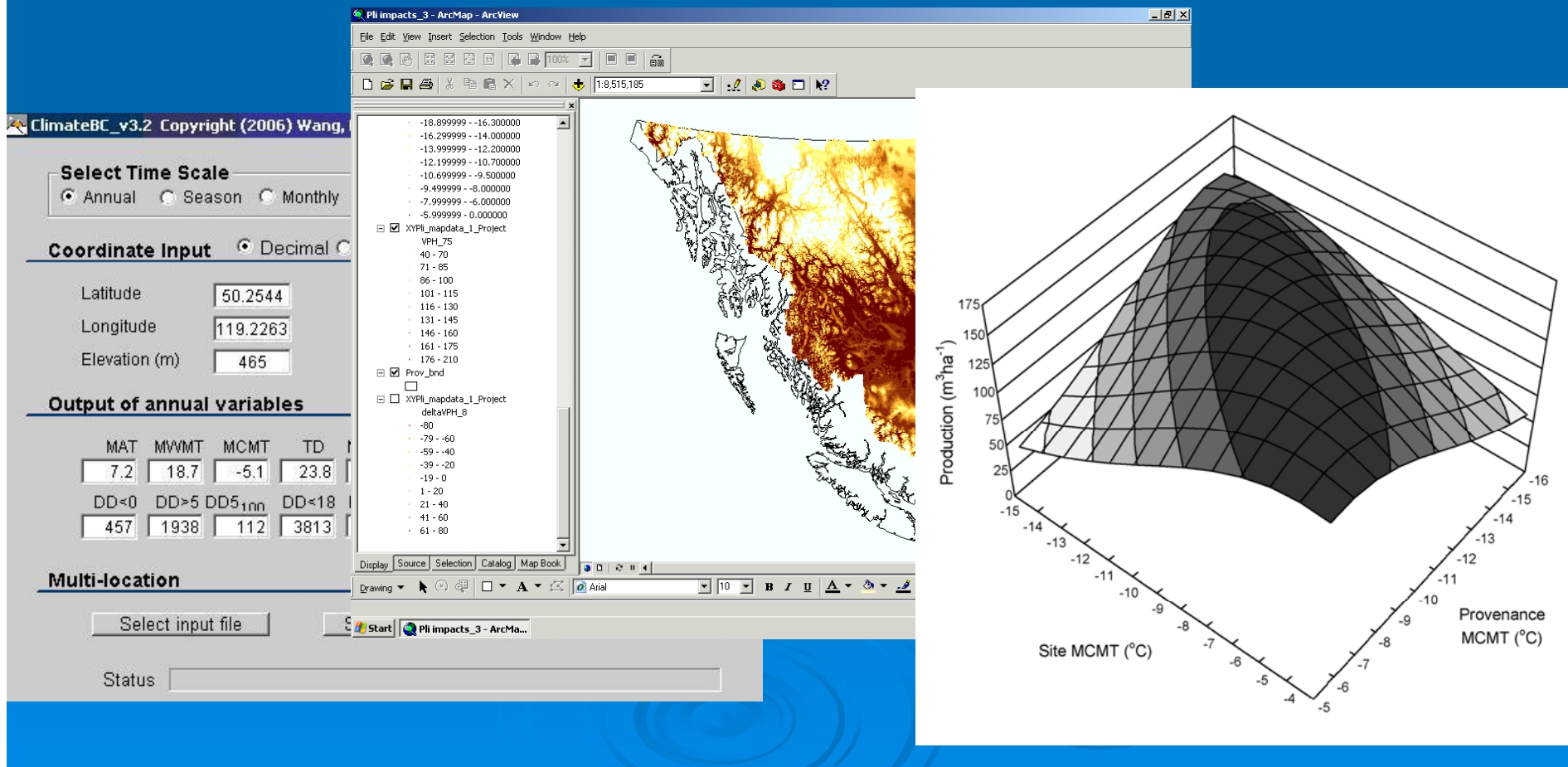


Long-distance multi-species trials suggest that species and populations might be able to grow well in locations outside their native range.

Photo: Barry Jaquish



- The genecology revolution (Climate models, GIS, new statistical methods) allows for improvements to seed transfer systems.



# Assisted Migration Adaptation Trial

## ➤ Rationale

- Need to better understand adaptation of selected materials in order to better manage our genetic resources

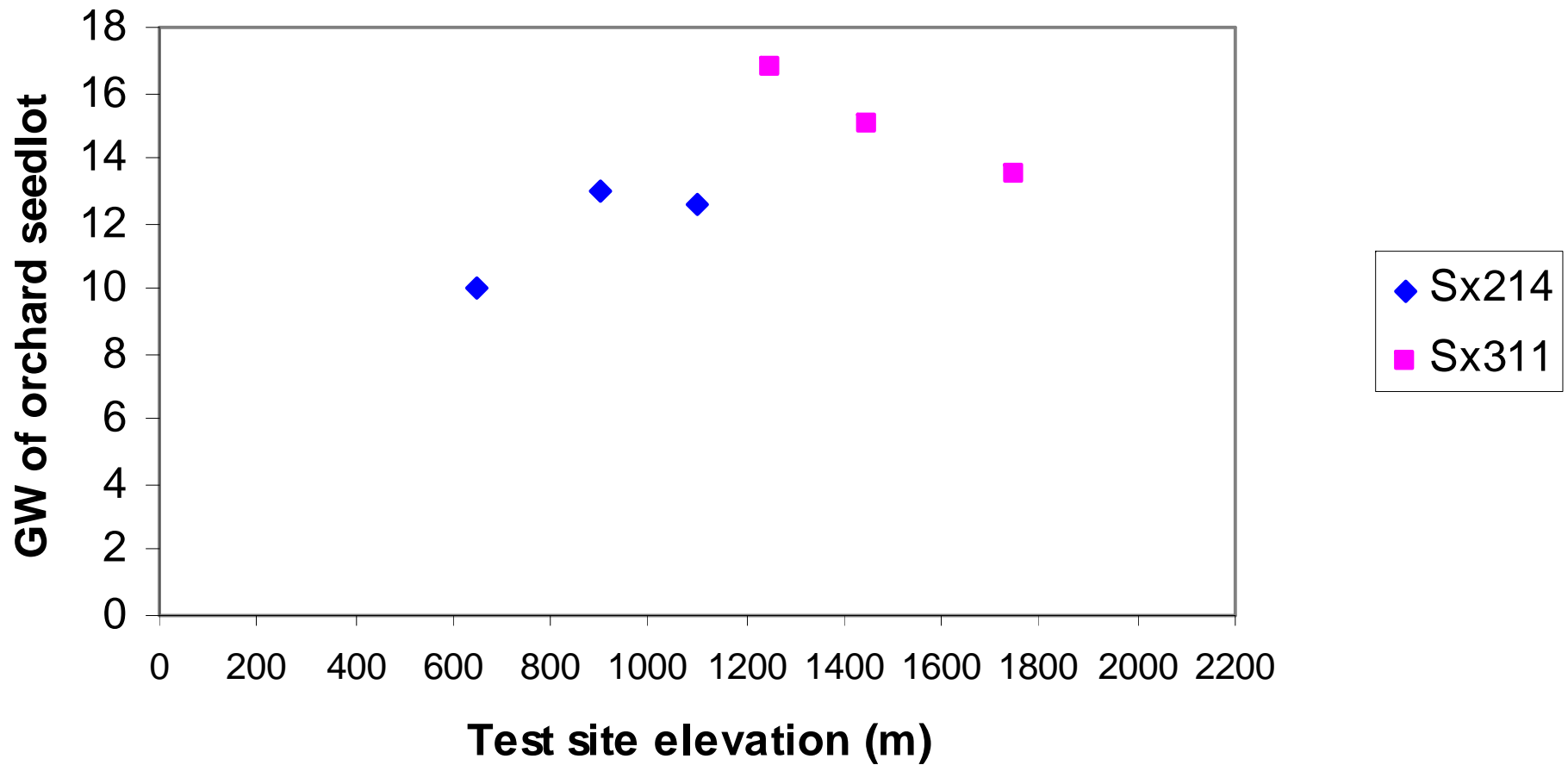
# Assisted Migration Adaptation Trial

## ➤ Rationale

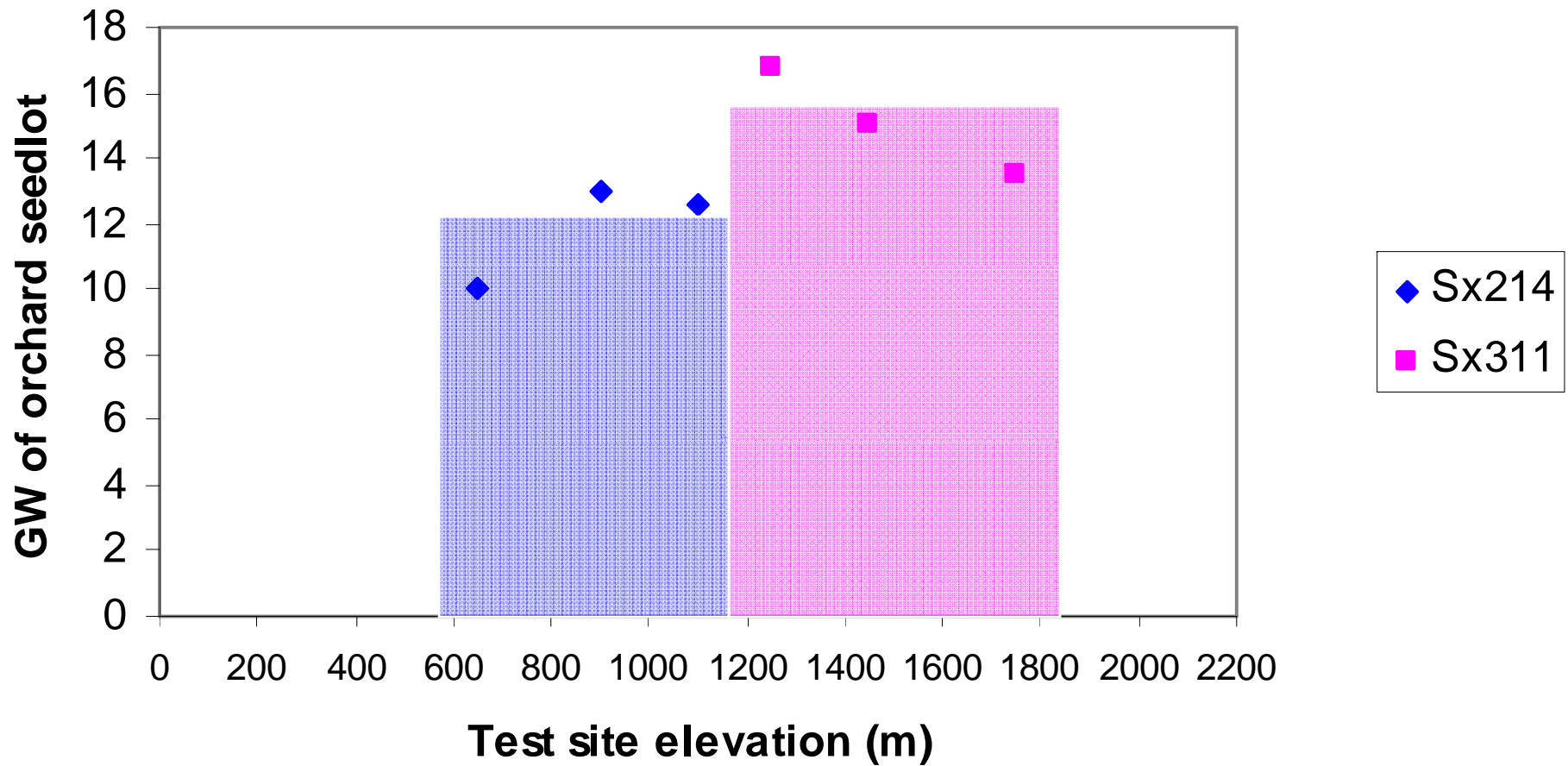
- Need to better understand adaptation of selected materials in order to better manage our genetic resources

## ➤ Goals

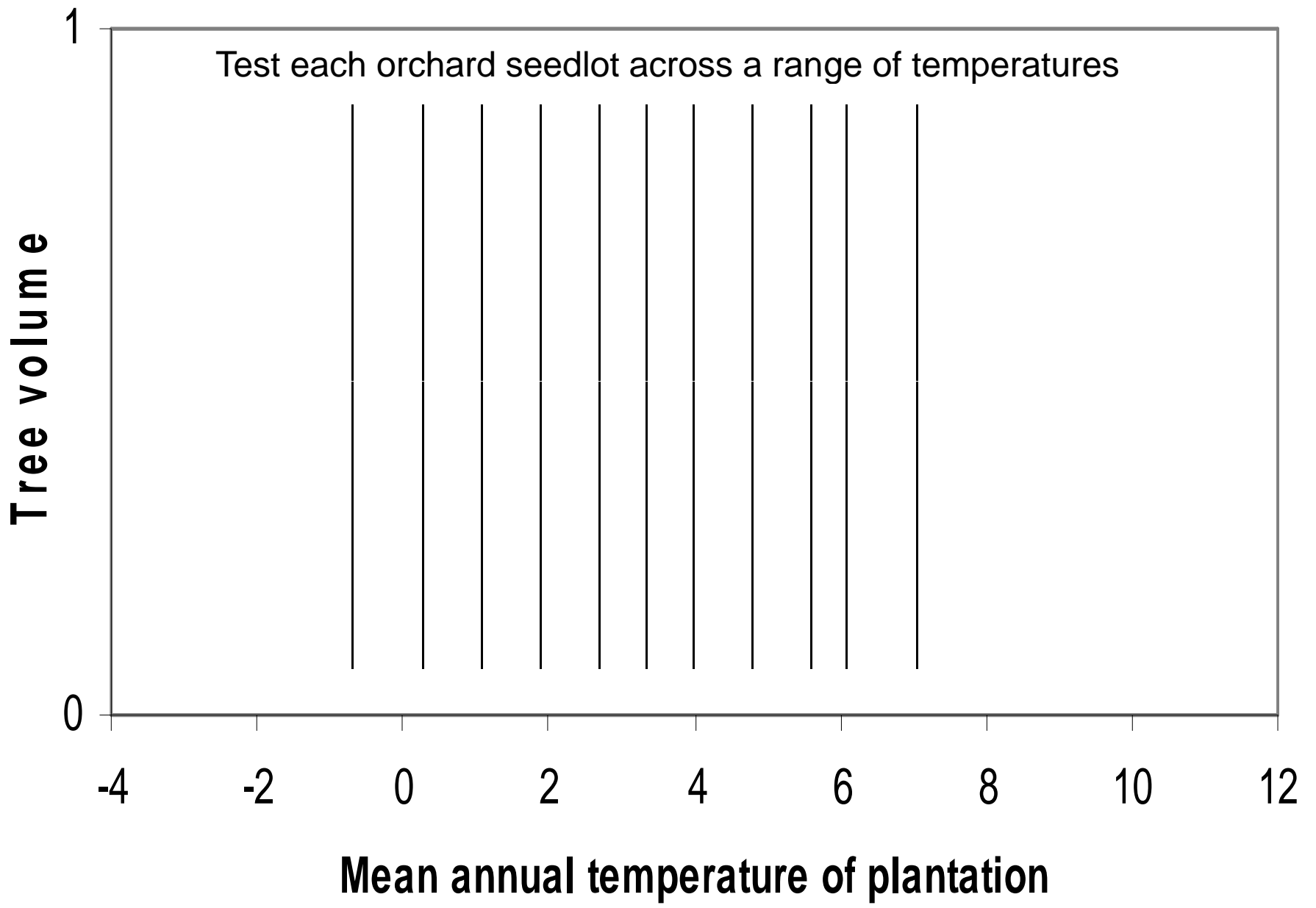
- Develop a seed transfer system that ensures the best plantation adaptation throughout the rotation
- Contribute toward improved species selection system
- Refine genetic gain estimates
- Implement assisted migration

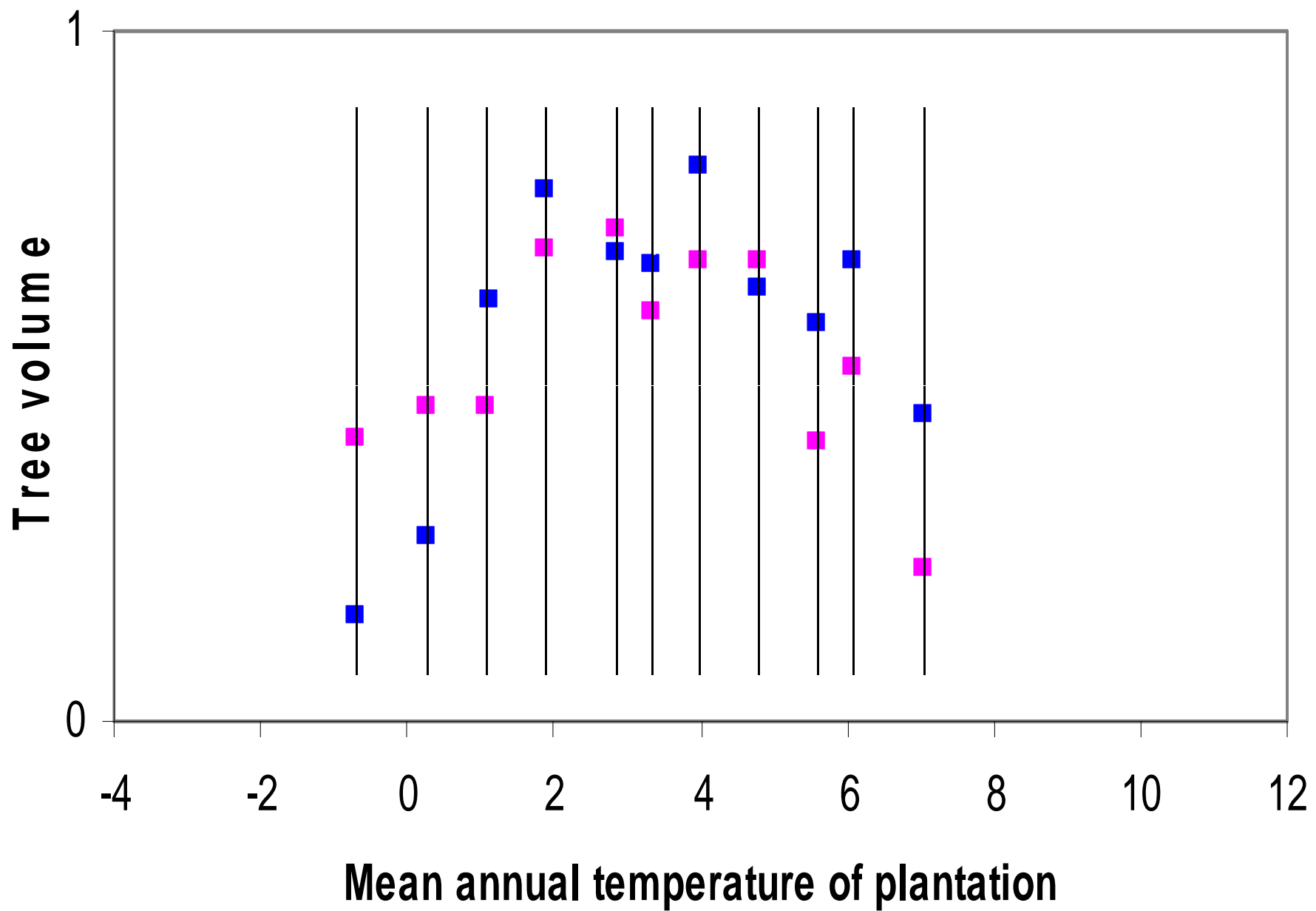


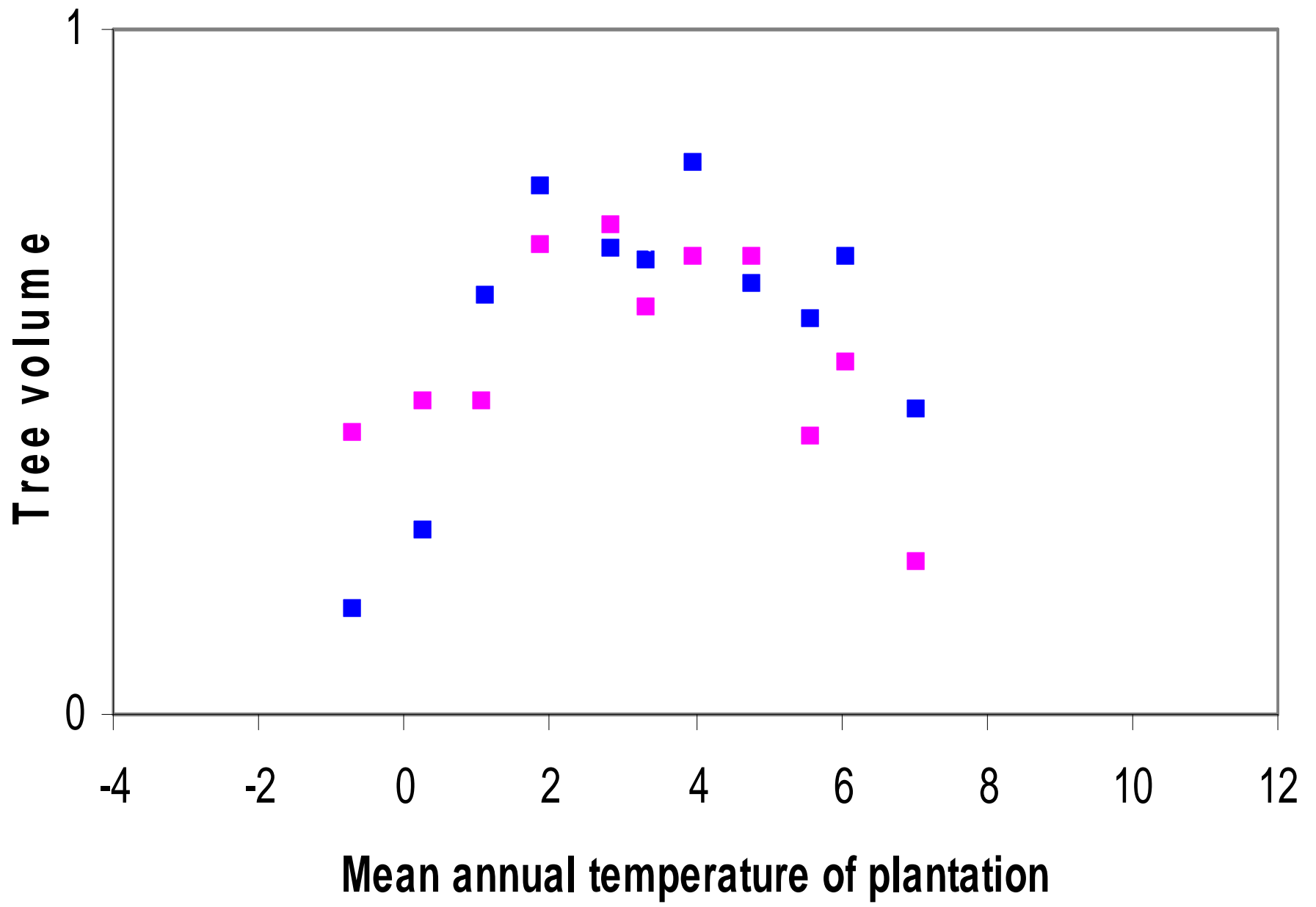
Transfer distance of orchard seed is determined mainly from 3 progeny tests/seed zone.

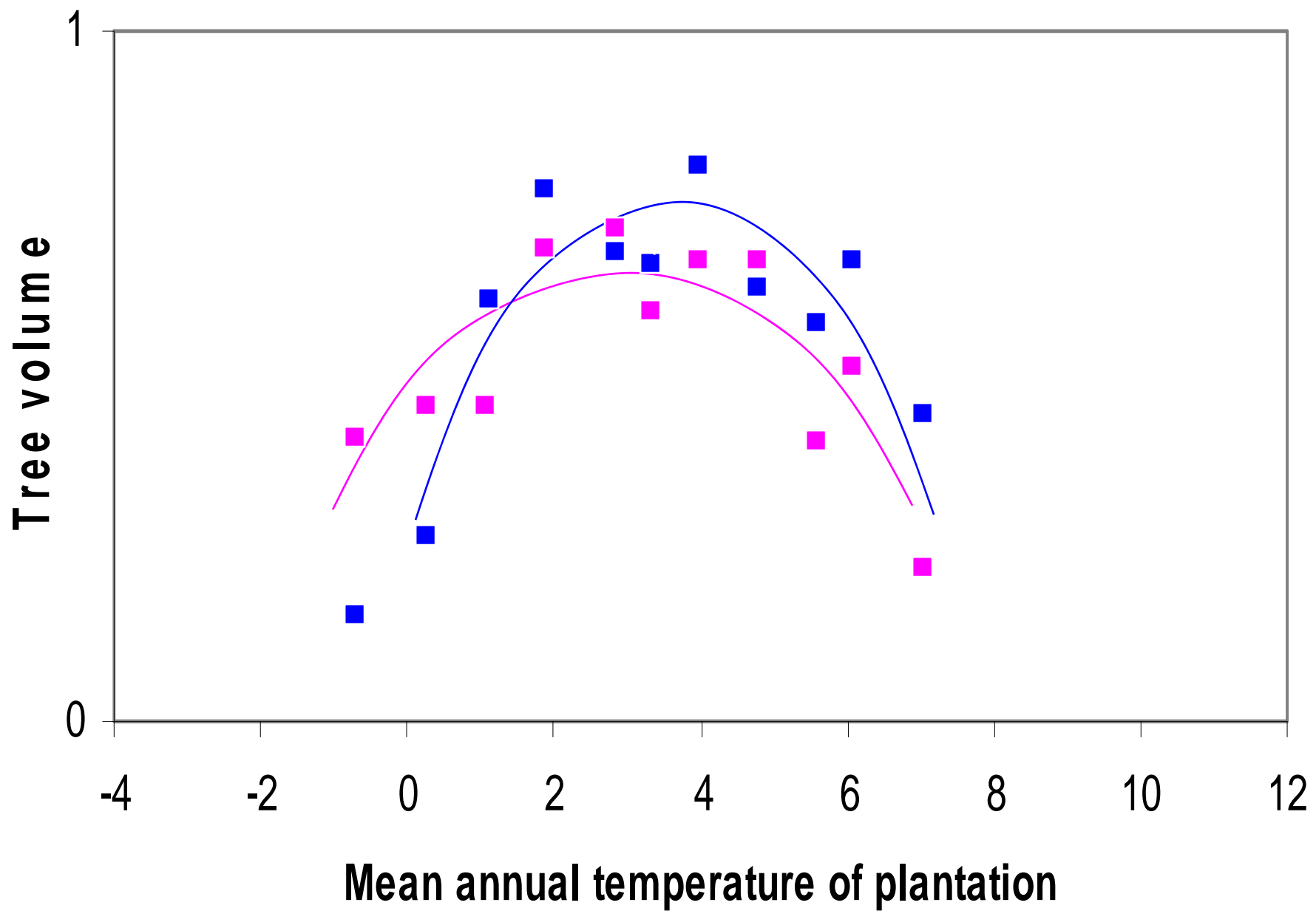


3 test sites/seed zone is insufficient to identify the most productive seedlot

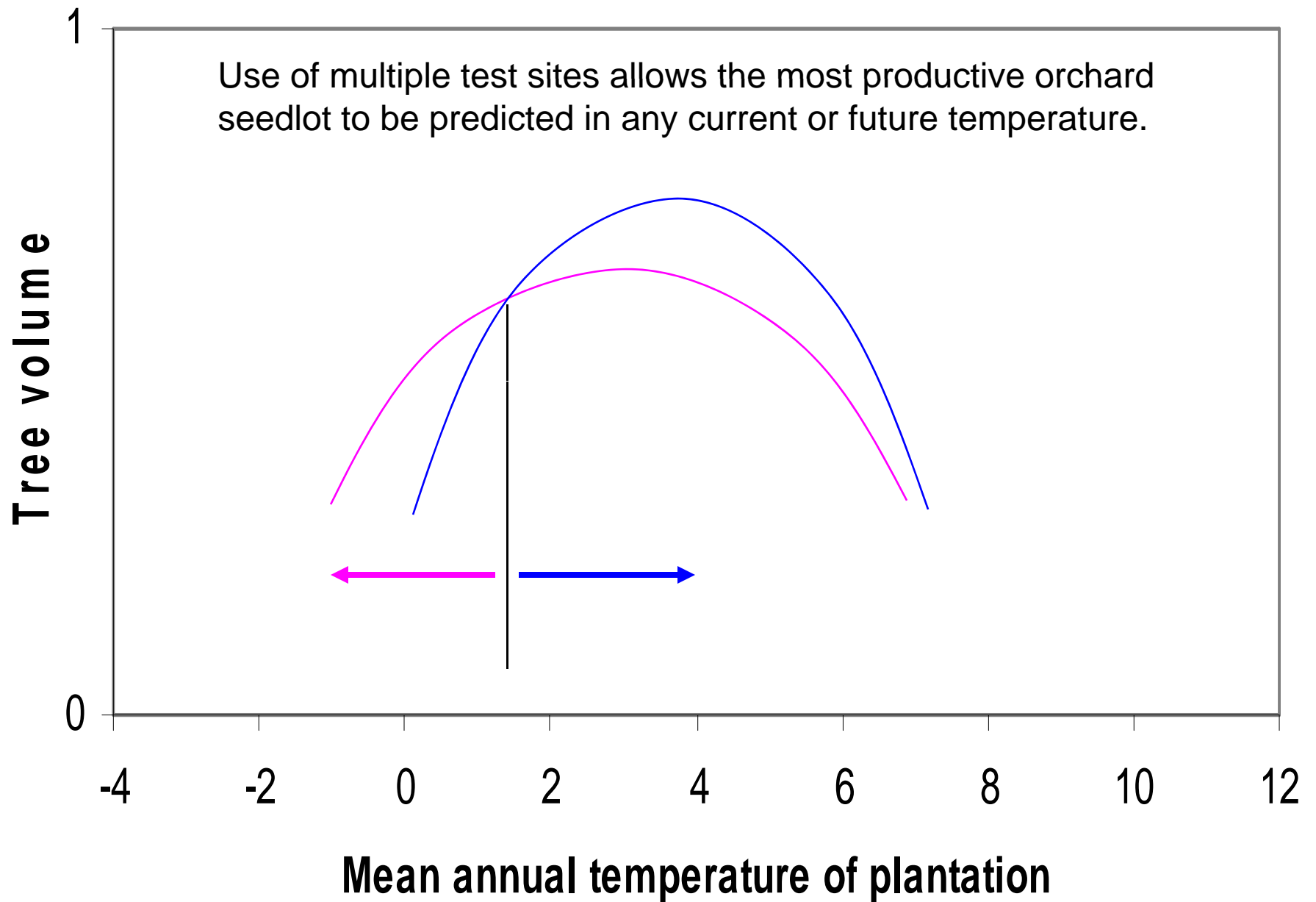




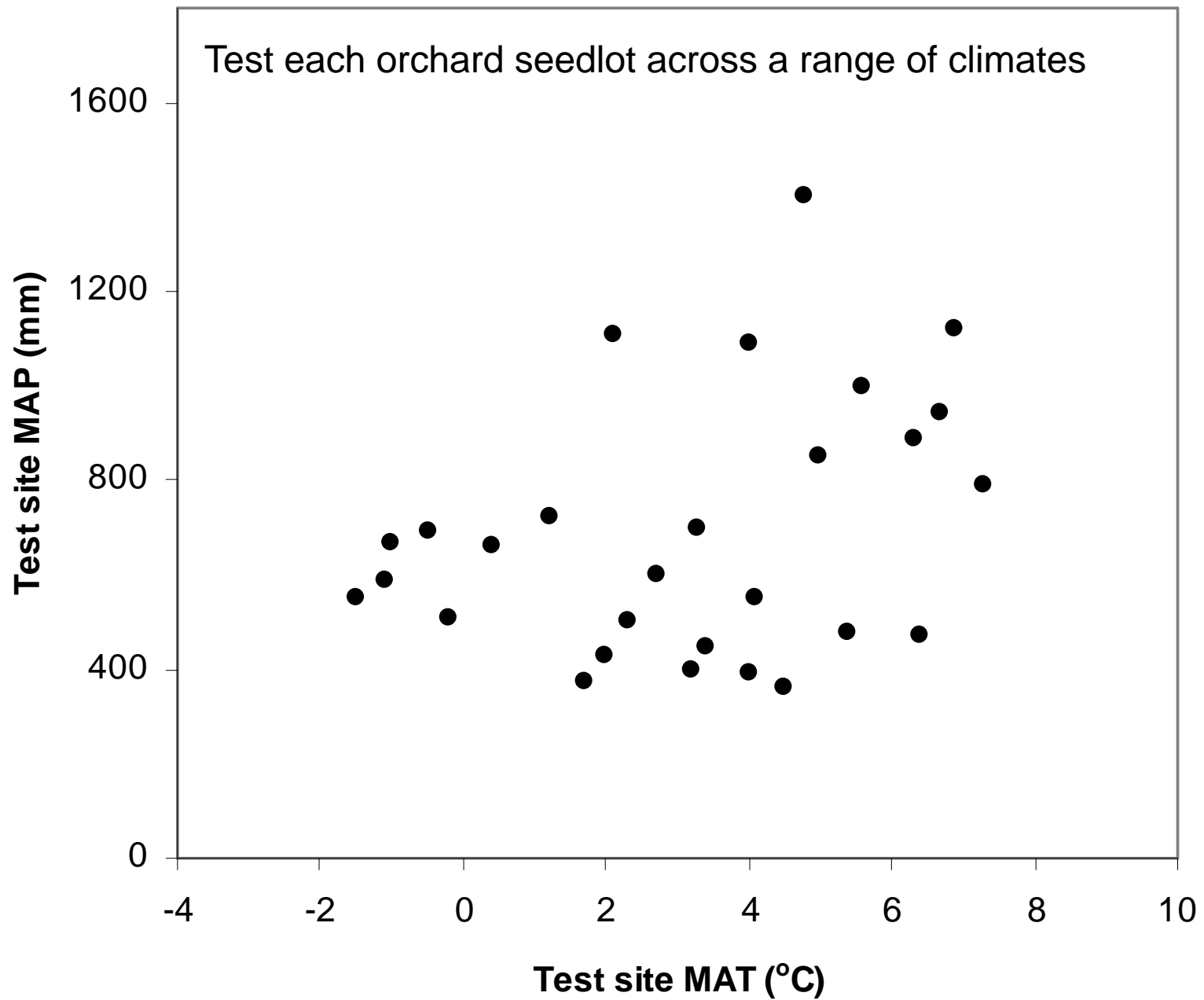


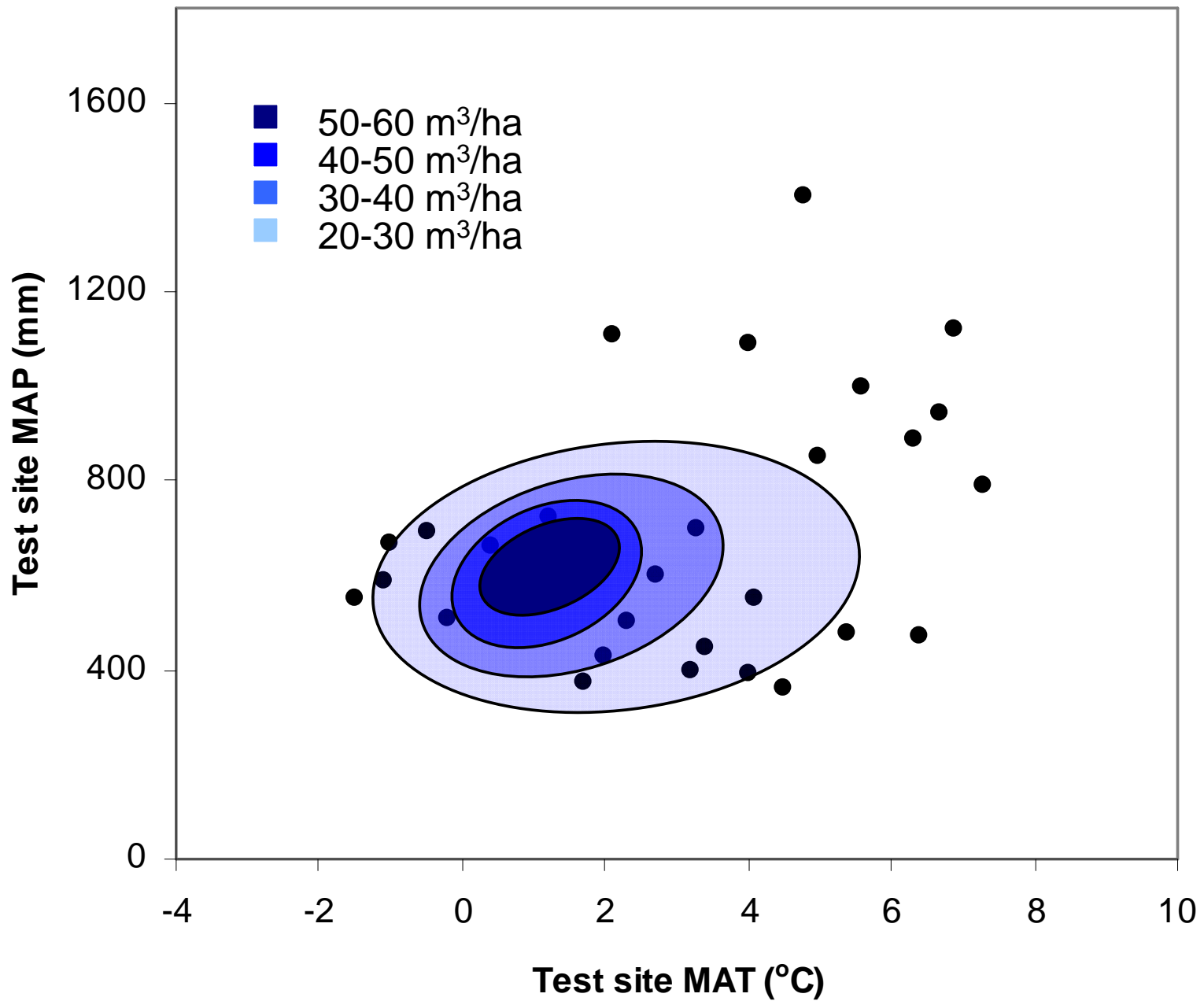


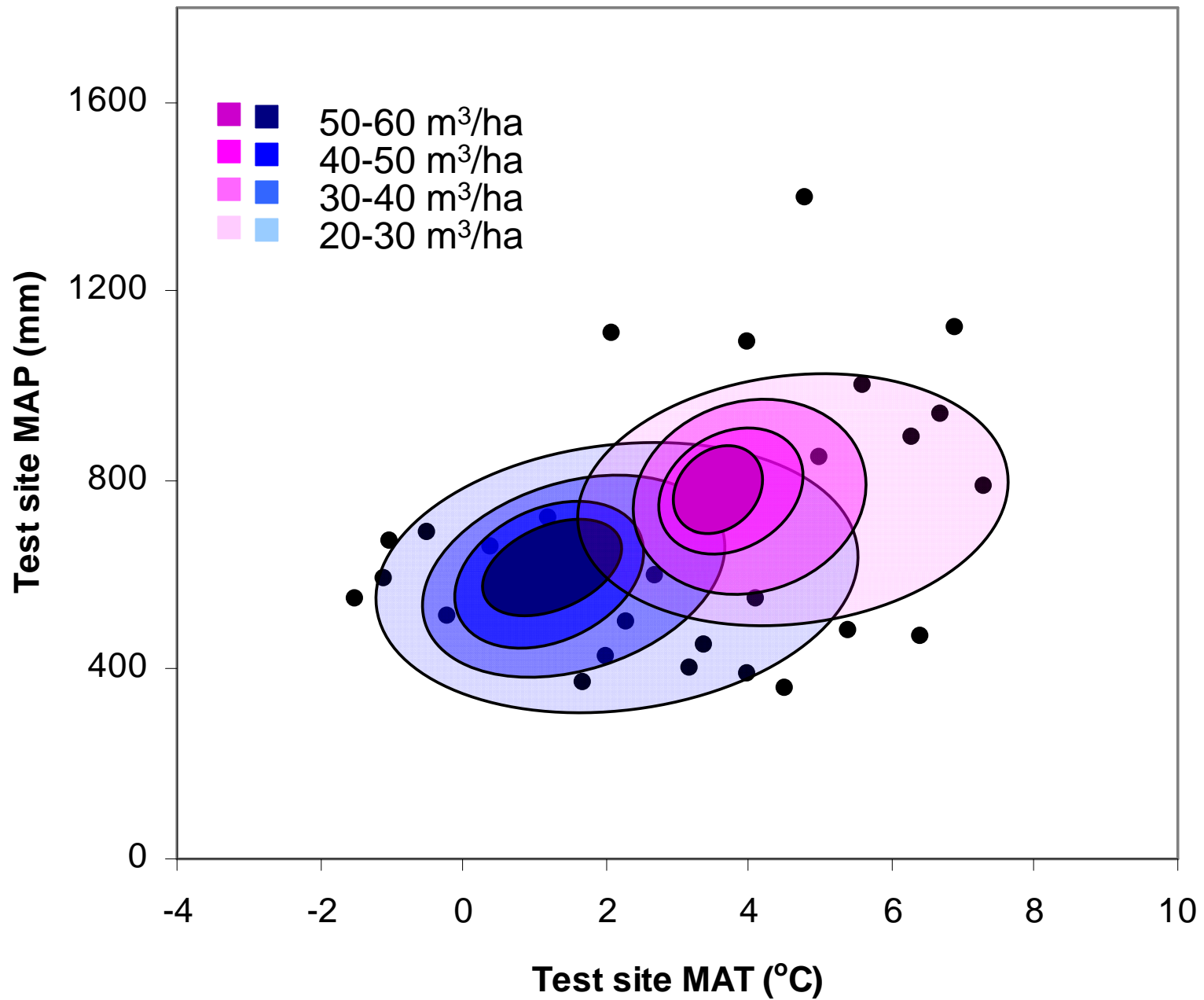
Use of multiple test sites allows the most productive orchard seedlot to be predicted in any current or future temperature.

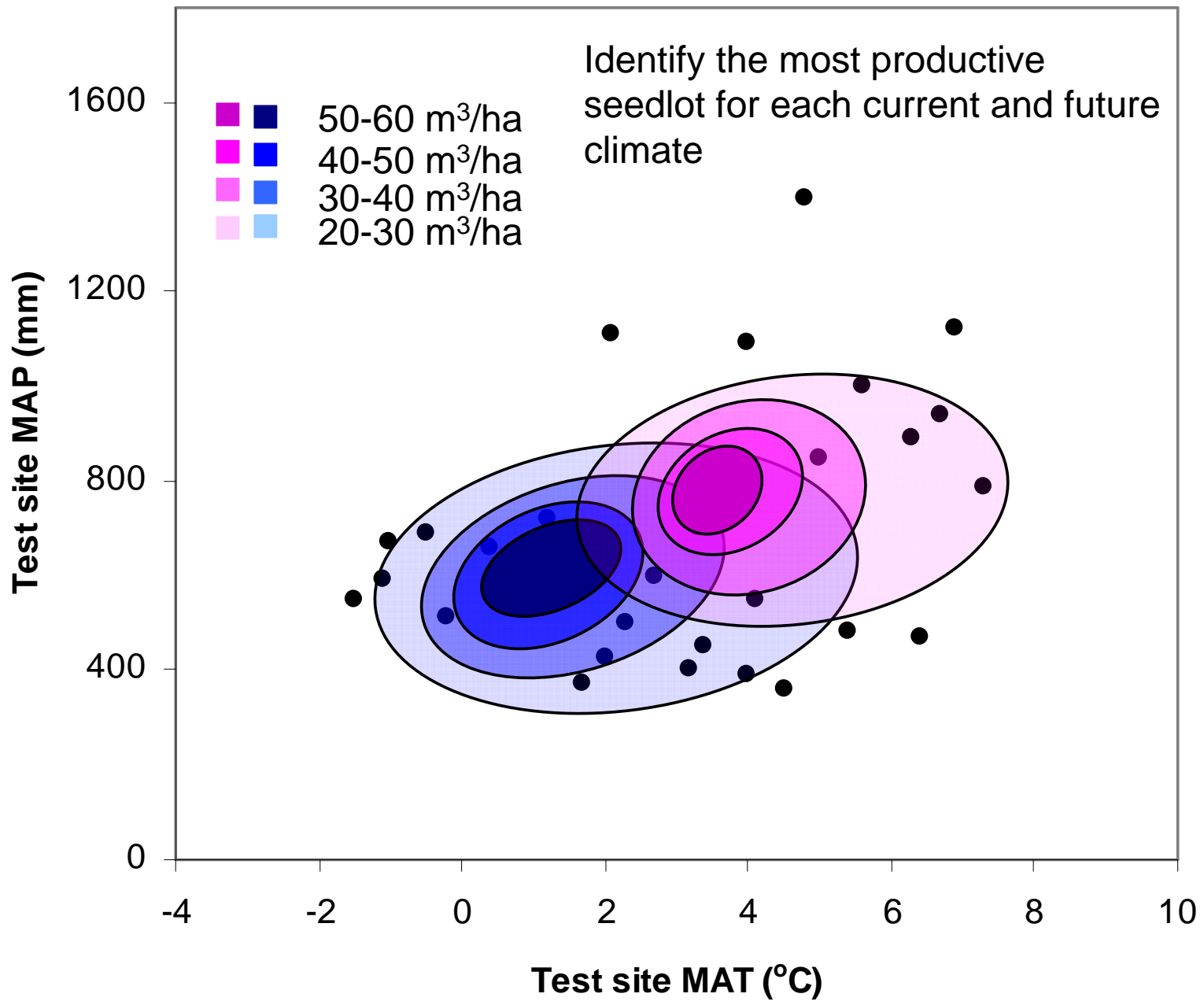


Test each orchard seedlot across a range of climates



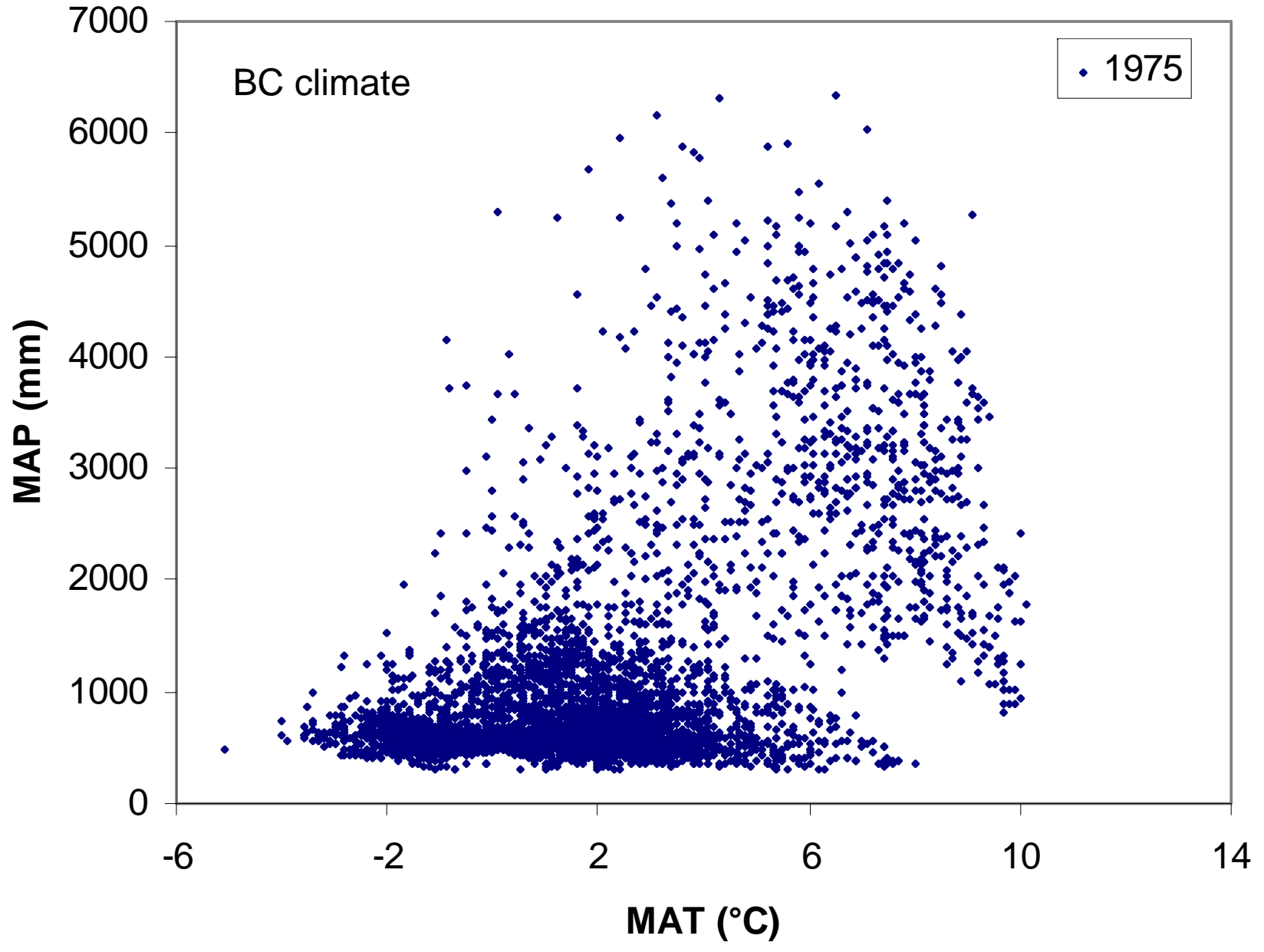


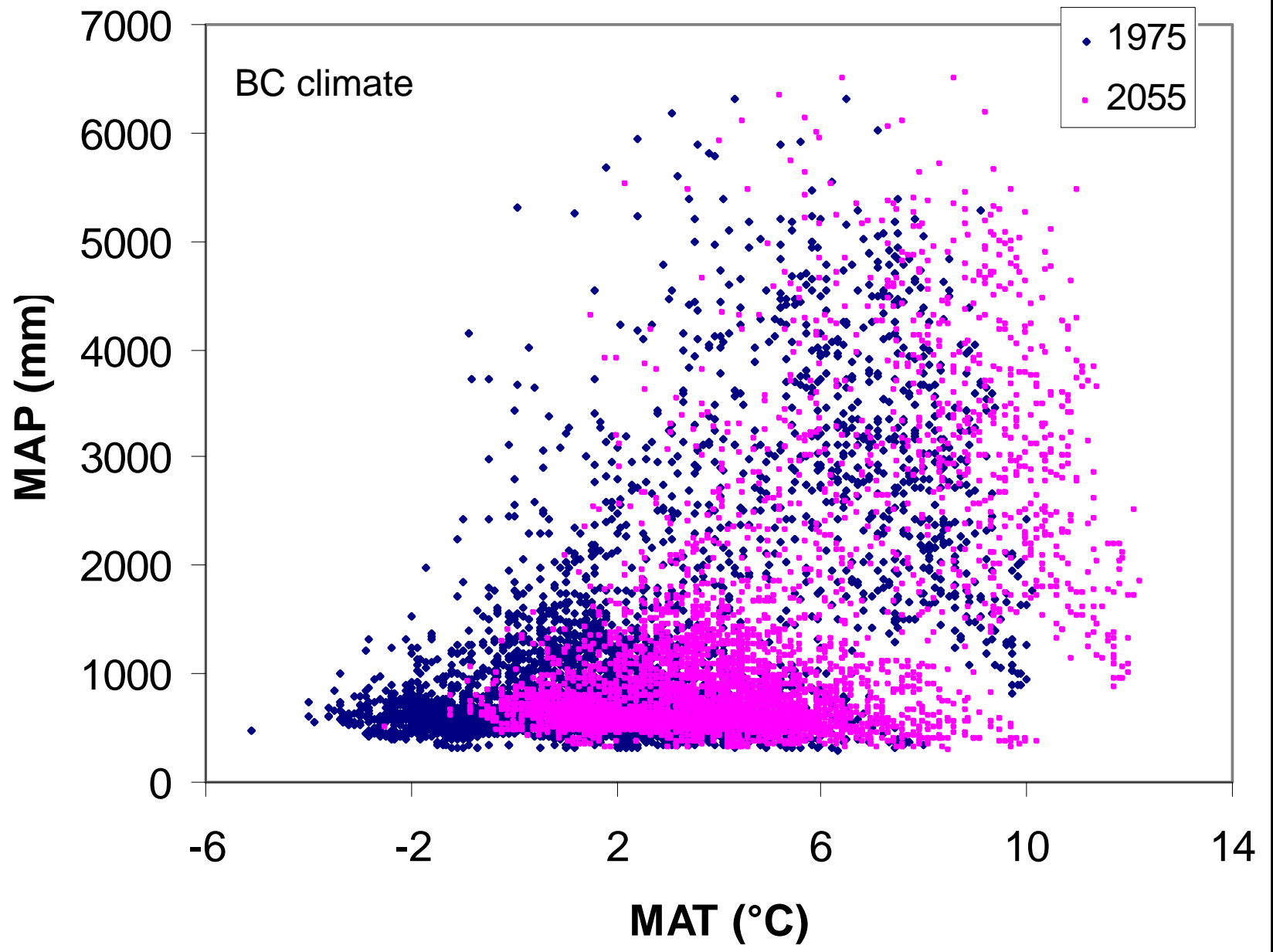


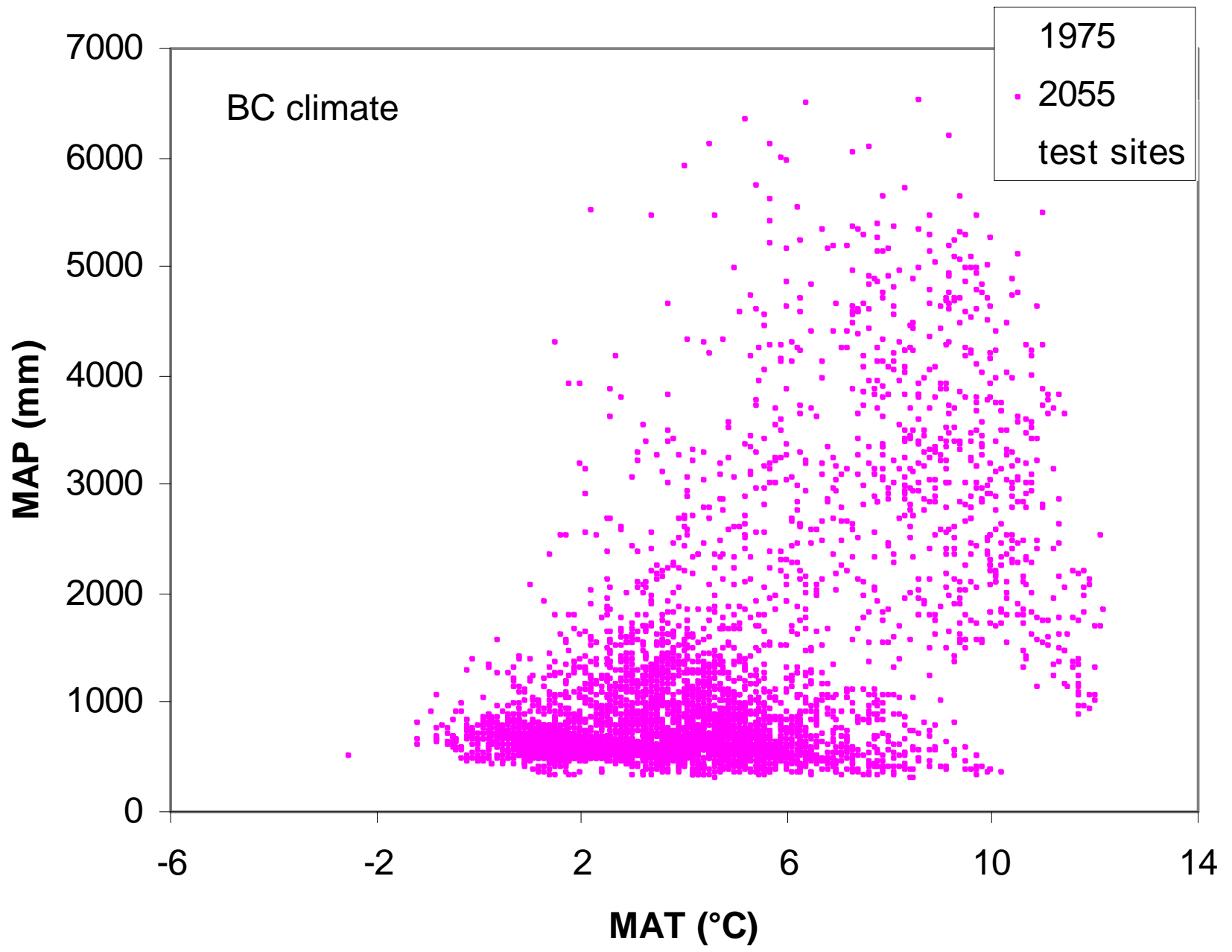


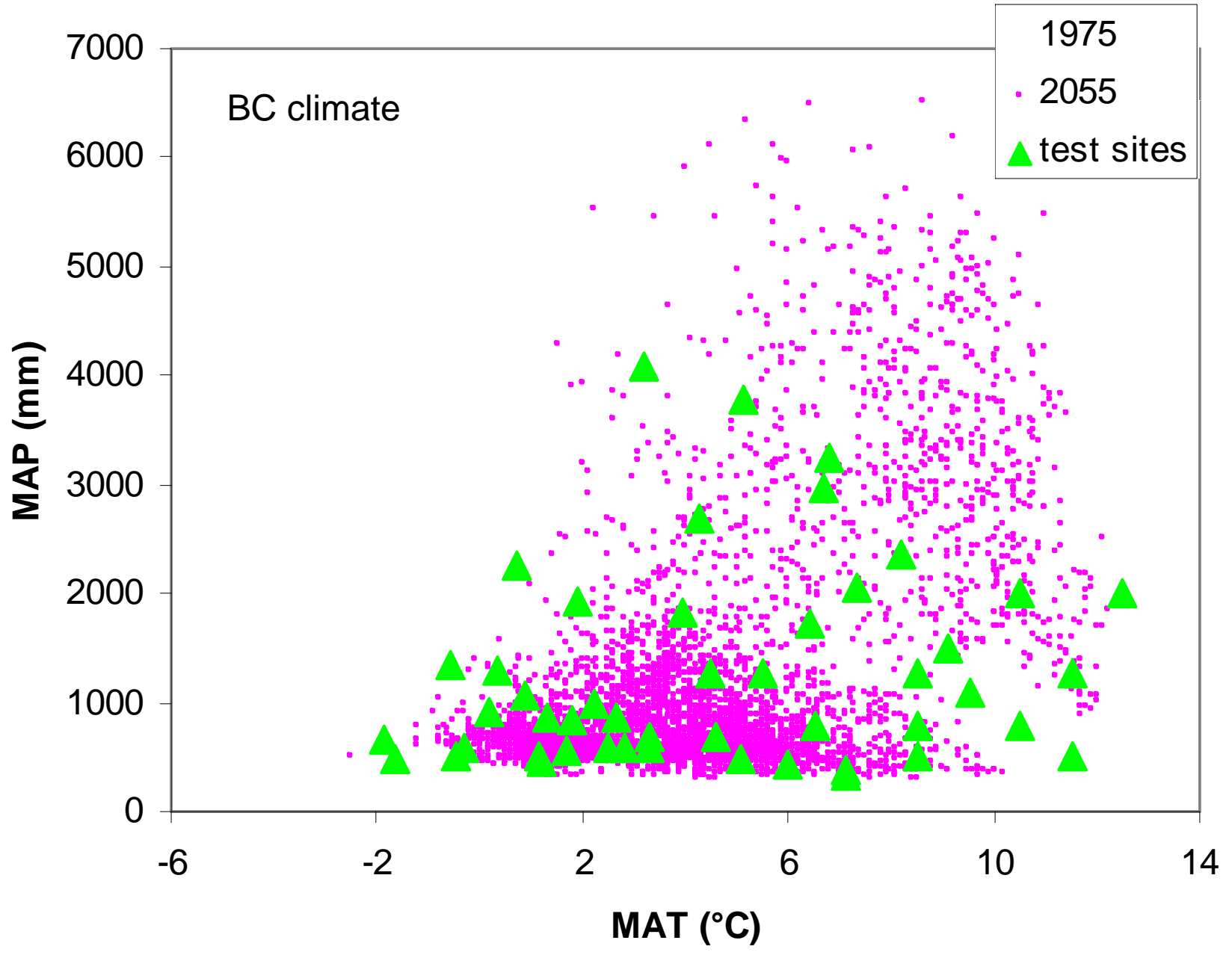
## ➤ Design

- 16 species
- 49 BC and USA orchard seedlots
- local wildstand controls
  
- 48 sites (41 BC; 7 WA/OR/ID/MO)
- 1 site/climate zone
- 4 blocks of 5 x 5 trees
  
- 12 sites/y
- first planting spring 2009









## ➤ Unique features of AMAT

- tests all of BC's main commercial species (including 3 broadleaves)
- test sites - large number and wide climate range
- includes northern USA populations and test sites
- focus on selected populations
- local controls and large plots allow realized gain estimation



**'AMAT'**

*Assisted Migration Adaptation Trial*

*Species (16) for 2008/2009  
Trial Series (13 sites)*



# British Columbia's Assisted Migration Adaptation Trial

**For more information, contact**

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