

Considerations around Plant Materials, Seed Sources, and Seedling Stock Types

Moderators:

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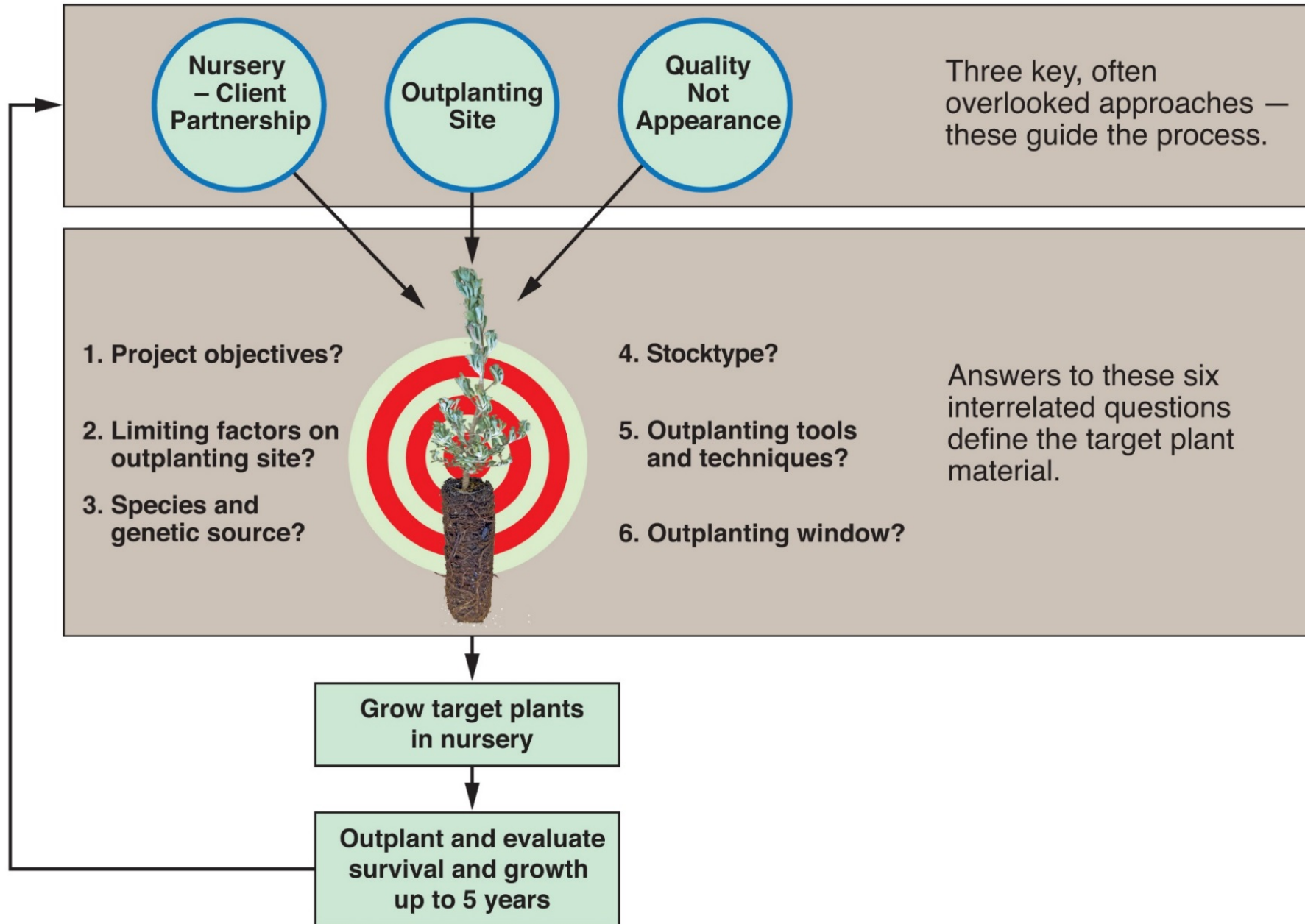
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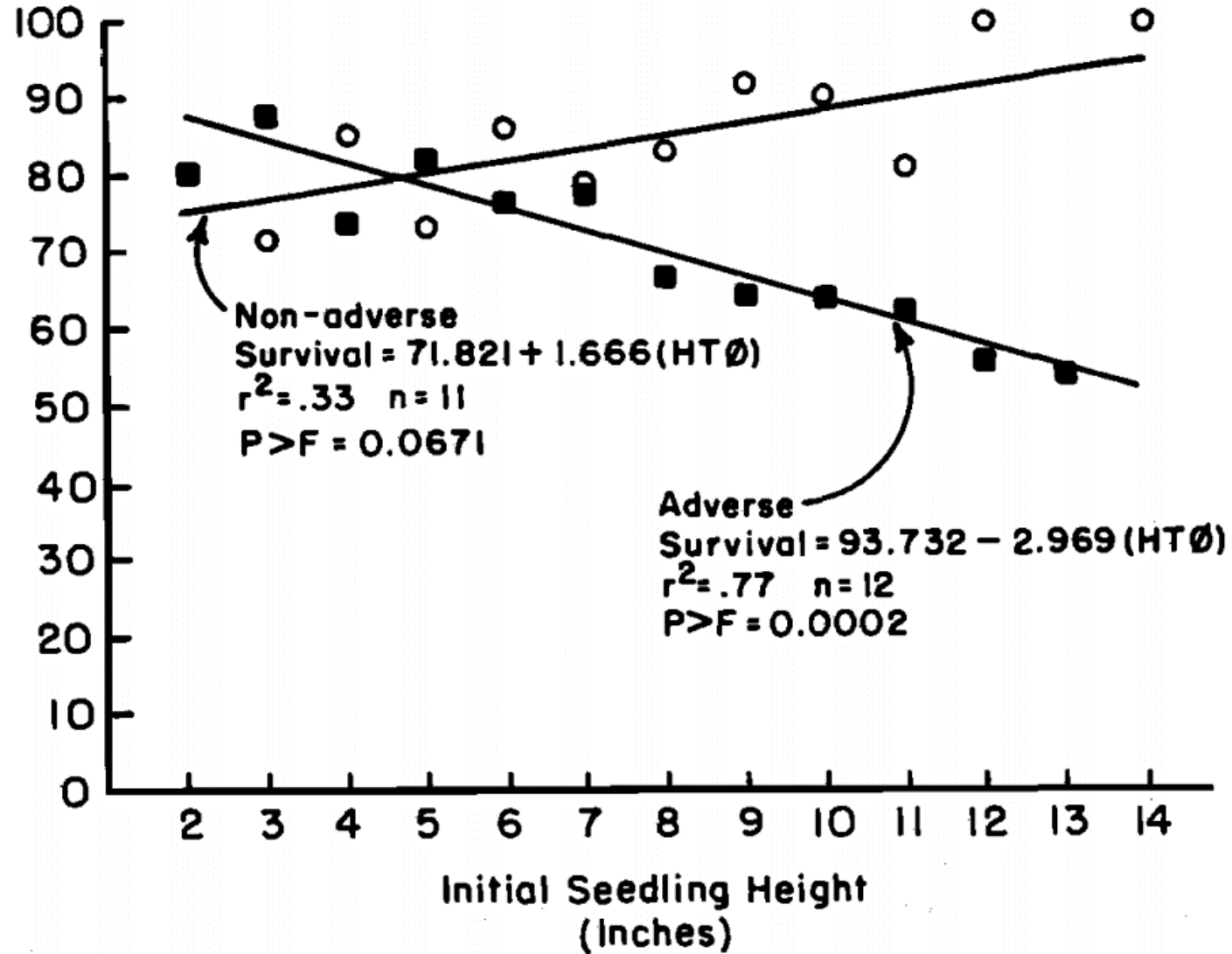
Discussion Topics

- Identify stock types that are best regarded as suitable for weather- and climate-related stress
- Evaluate current approaches intended to best match seedling capabilities and adaptabilities to future growth environments
- Consider the current and future utility of seed zones and breeding zones, as well as feasible alternatives

The Target Plant Concept



Seedling Survival (Percent)



Stocktype mismatched to shallow soil conditions

There is no “one size fits all” for seedling quality or stocktype selection

Target characteristics and subsequent seedling performance are determined by the outplanting site



Seedlot Selection Tool

Current Climate
(red= good climate match)



Seedlot Selection Tool

Tool

Region: Western US

4 Select climate scenarios

Which climate are the seedlots adapted to?
1961 - 1990

When should trees be best adapted to the planting site?
1961 - 1990

5 Select transfer limit method

Custom Zone

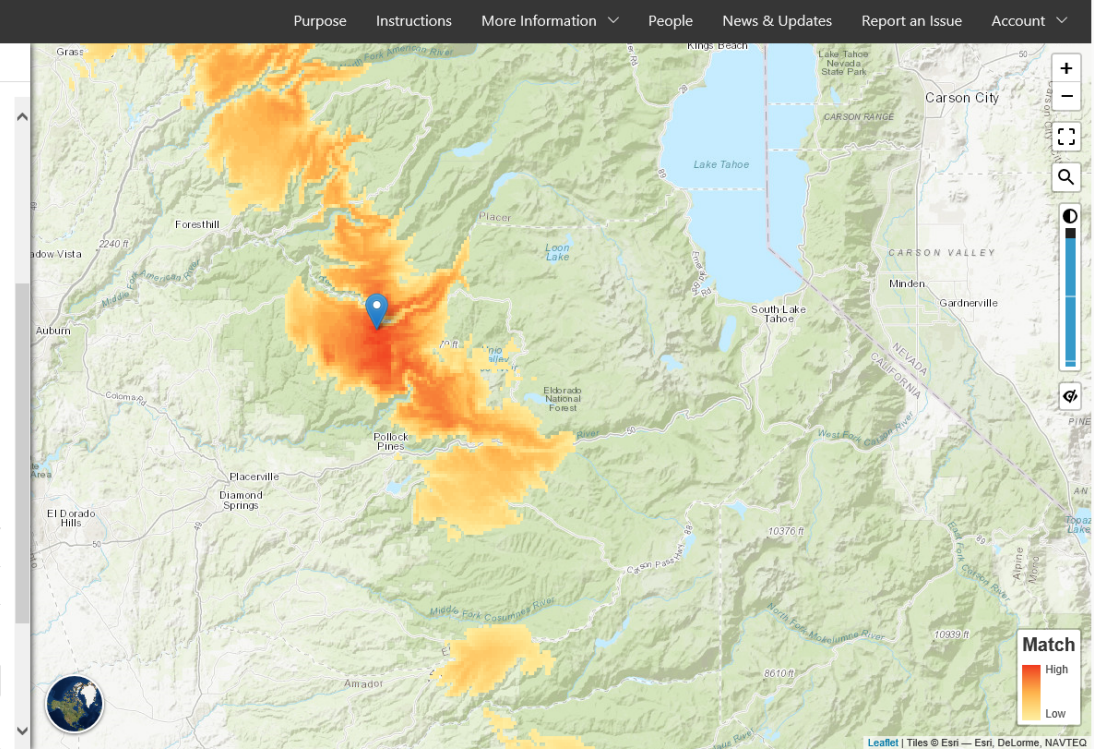
6 Select climate variables

Units: Metric Imperial

Name	Center	Transfer limit (+/-)
MCMT	4.1 °C	2.00 °C
MAP	1407 mm	200 mm
CMD	611 mm	100 mm

Add a variable...

7 Apply constraints



Future Climate



Seedlot Selection Tool

Tool

Region: Western US

4 Select climate scenarios

Which climate are the seedlots adapted to?
1961 - 1990

When should trees be best adapted to the planting site?
2041 - 2070 RCP4.5

5 Select transfer limit method

Custom Zone

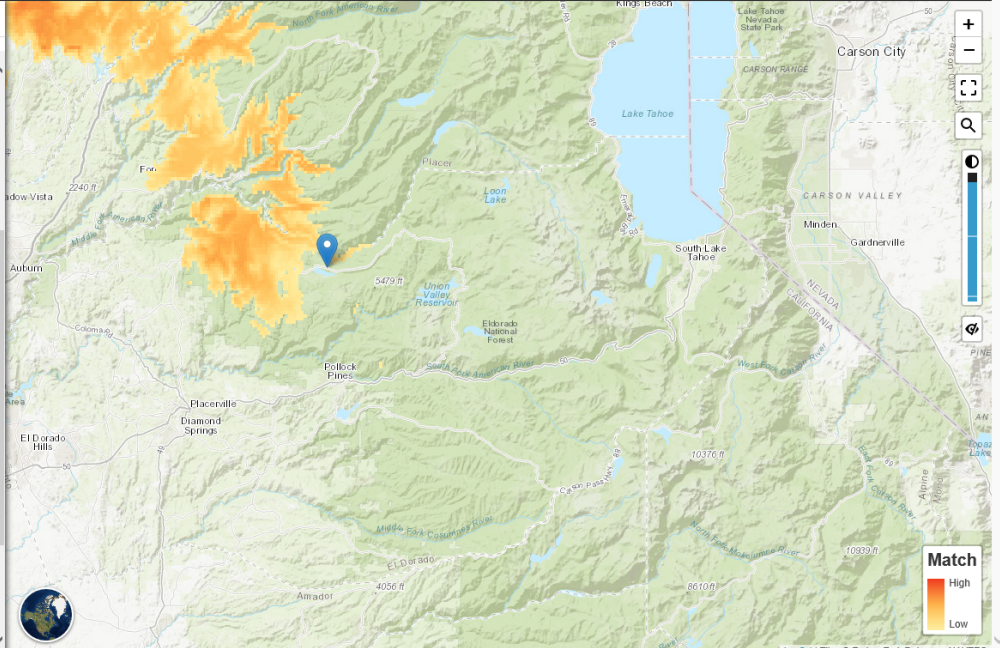
6 Select climate variables

Units: Metric Imperial

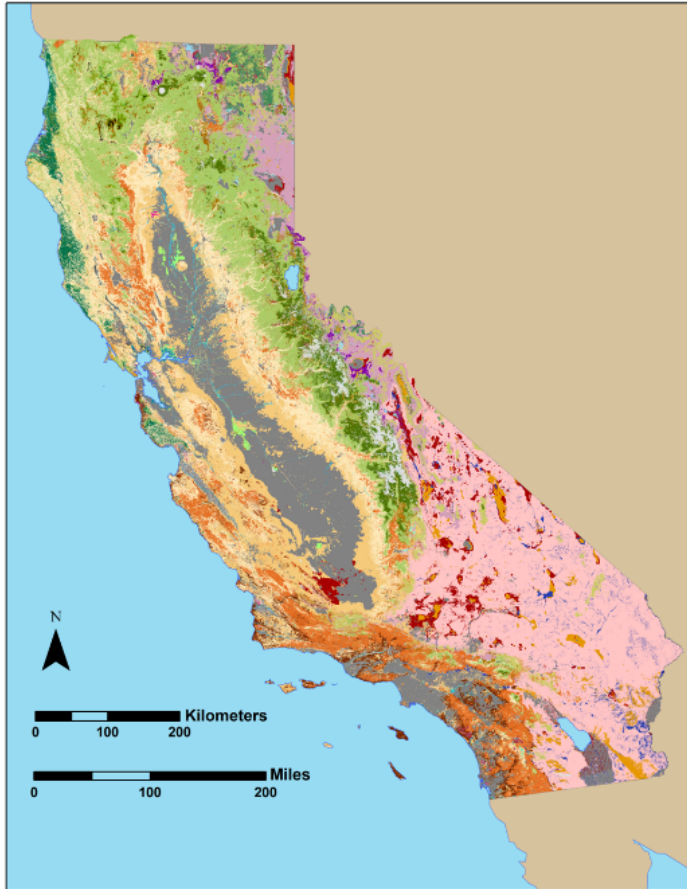
Name	Center	Transfer limit (+/-)
MCMT	6.2 °C	2.00 °C
MAP	1414 mm	200 mm
CMD	690 mm	100 mm

Add a variable...

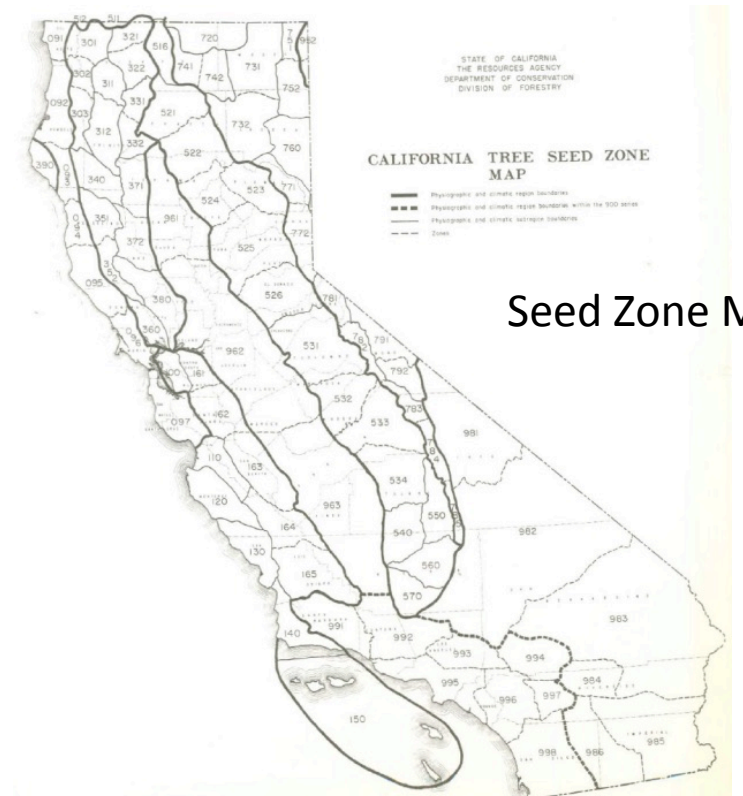
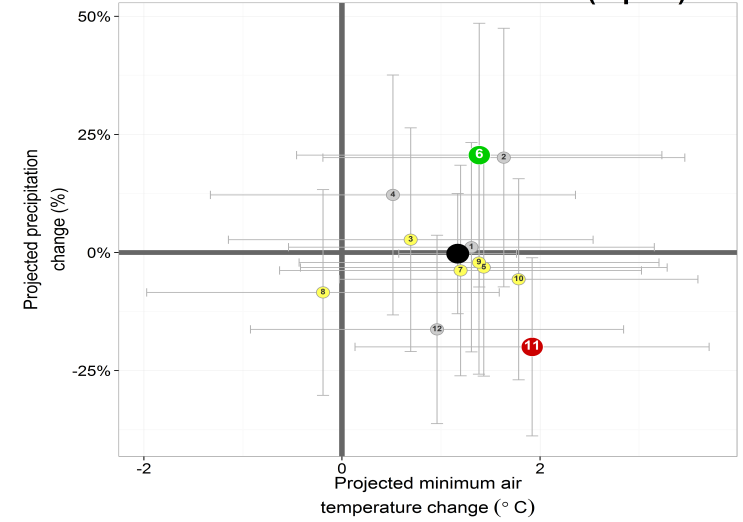
7 Apply constraints



California Vegetation Type Map



Climate Change Projections for California 2070-2099 relative to 1981-2010 (rcp4.5)



Seed Zone Map

Discussion Topics / Questions to Consider

- Identify stock types that are best regarded as suitable for weather- and climate-related stress
- Evaluate current approaches intended to best match seedling capabilities and adaptabilities to future growth environments
- Consider the current and future utility of seed zones and breeding zones, as well as feasible alternatives
- *What 3 to 5 prescription elements require decisions on your part and are important to yourself, your NF, or stakeholders within these topics?*
- *What are some key considerations to weigh for these elements?*