



Reflections from the Field: Nursery

Georgia Mitchell - Seed & Harvest
Coordinator, Fourth Corner Nurseries

Georgia, how has Fourth Corner Nurseries used the Seedlot Selection Tool or other climate/vegetation models?

GEORGIA: At Fourth Corner Nurseries, we began looking at the SST in 2019, after learning about it at a 2018 Society for Ecological Restoration (SER) conference. We began exploring climate implications for our nursery site and seed collecting practices, while researching how best to utilize the tool and information it provides. As our wholesale bareroot operation provides plants for customers throughout Washington, Oregon, and beyond, tailoring production to the future climate realities of so many locations presents a steep challenge. Conversation and planning within the Propagation and Seed Collecting Departments have steadily increased since early 2020 due to vocal customer interest in climate adapted seed and new opportunities for collaboration with researchers and organizations. An in-house audit of current practices as they relate to genetic diversity and population resilience is one of the first action items on our list.

Georgia, what questions relating to your work and climate change would you love to have researchers investigate?

GEORGIA: As species-specific research primarily covers conifers, climate vulnerability research into other common restoration species of the Pacific Northwest is our greatest interest. The establishment of appropriate proxies for categorizing groups of species likely to be most impacted would be another option where individual species research is deemed too limiting. A related issue is access to or development of an information database on life history traits of native species that could help guide our approach to conservation of genetic diversity.

One of the challenges we experience as practitioners is simply not being versed in the breadth of scientific research available or underway. Forging stronger communication pathways between researchers and practitioners so that we know which experts to reach out to with specific types of questions would help us

all avoid duplications of effort and – on the practitioner side – hours of internet searching.

Our first interactions with the SST produced a windfall of questions: Which climate variables are most important for species survival and fitness? How do we know how to set reasonable transfer limits? Do we base limits on species tolerances or likely climatic variation within the ecoregion? While we have gradually found answers to some of our questions, there remains a degree of uncertainty that effectively slows institutional adoption. While we're obviously aware of the risk of inaction on climate adaptation, we also recognize the risk we take making preemptive changes that affect our customers and possibly the viability of the plants we grow today. Further in-depth instruction on how best to utilize the SST and other related technology may be an on-going need as both climate change and human response accelerate.



Fourth Corner Nurseries, located in Whatcom County, Washington, is a wholesale grower of native plants with 40 acres currently under production.