

Identifying Important Considerations for Successful Bunchgrass Restoration from Seed

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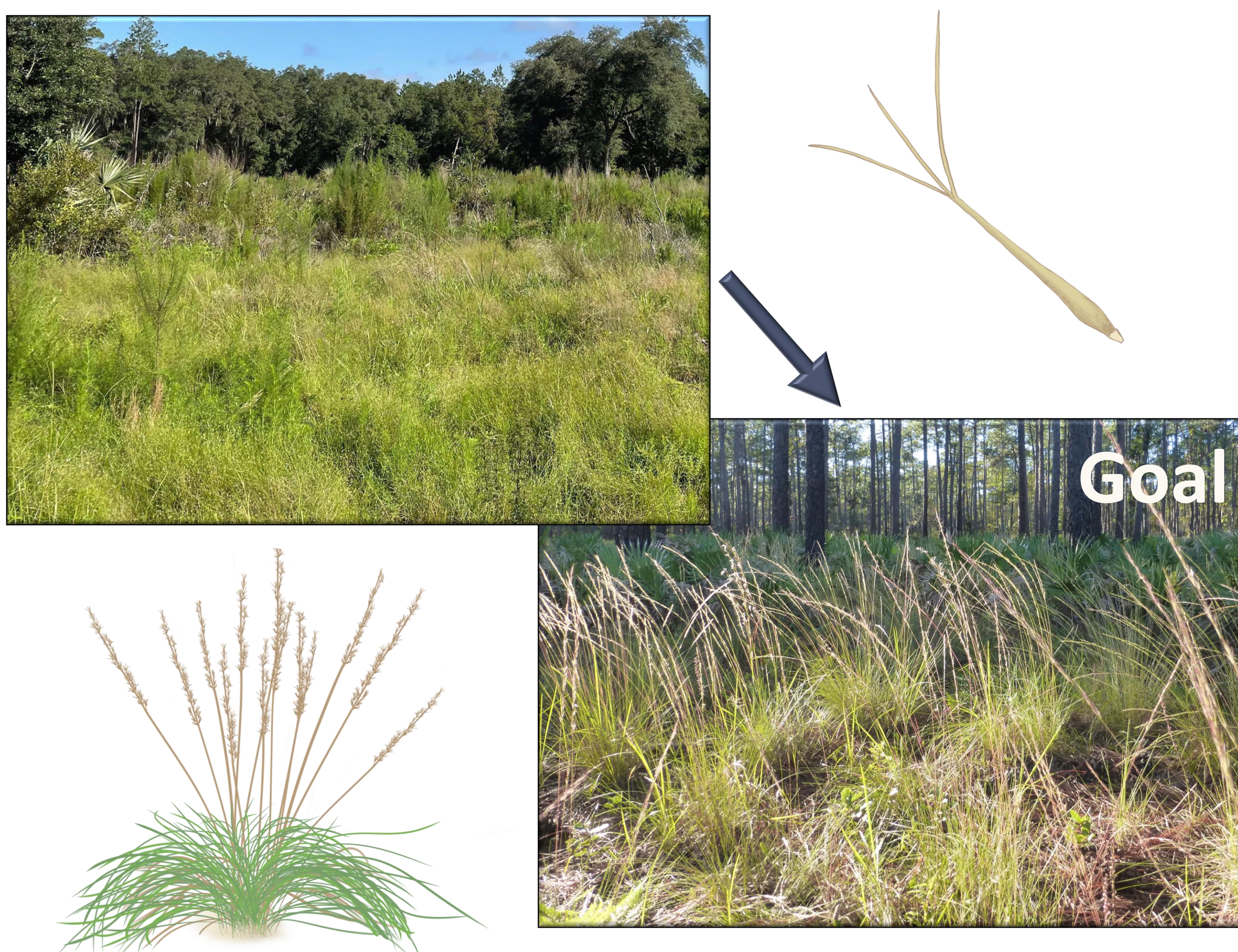
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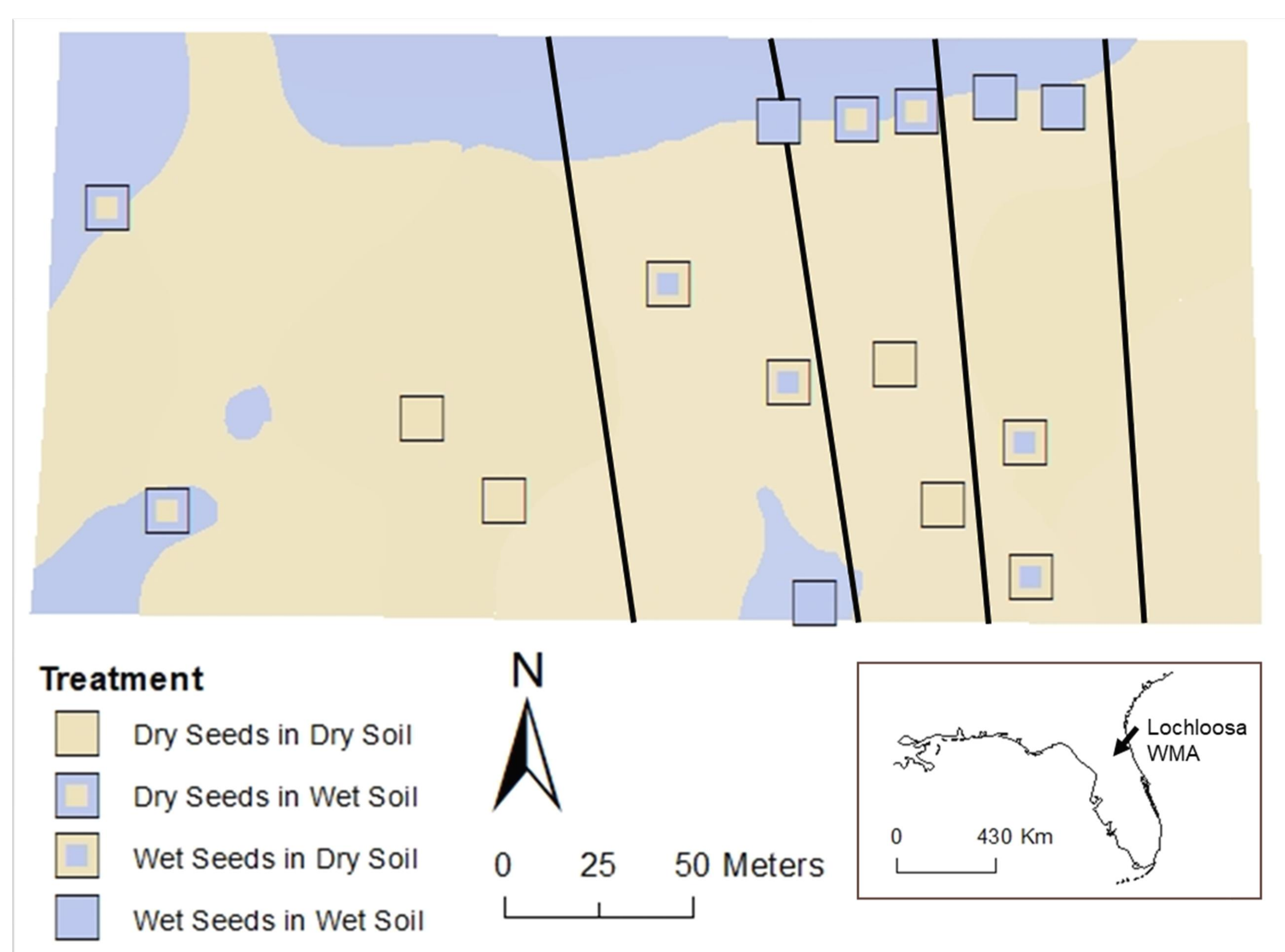
Background

Sowing wiregrass (*Aristida stricta* or *A. beyrichiana*) is often a first step in restoring old fields or former plantations to pine savannas in the southeastern USA, but establishment success varies.



Objectives

We used a restoration site to test whether seed source (wet or dry sites), soil type (wet or dry soils), competition (weeded or unweeded), and seeding rates affected wiregrass establishment, growth, and reproduction.



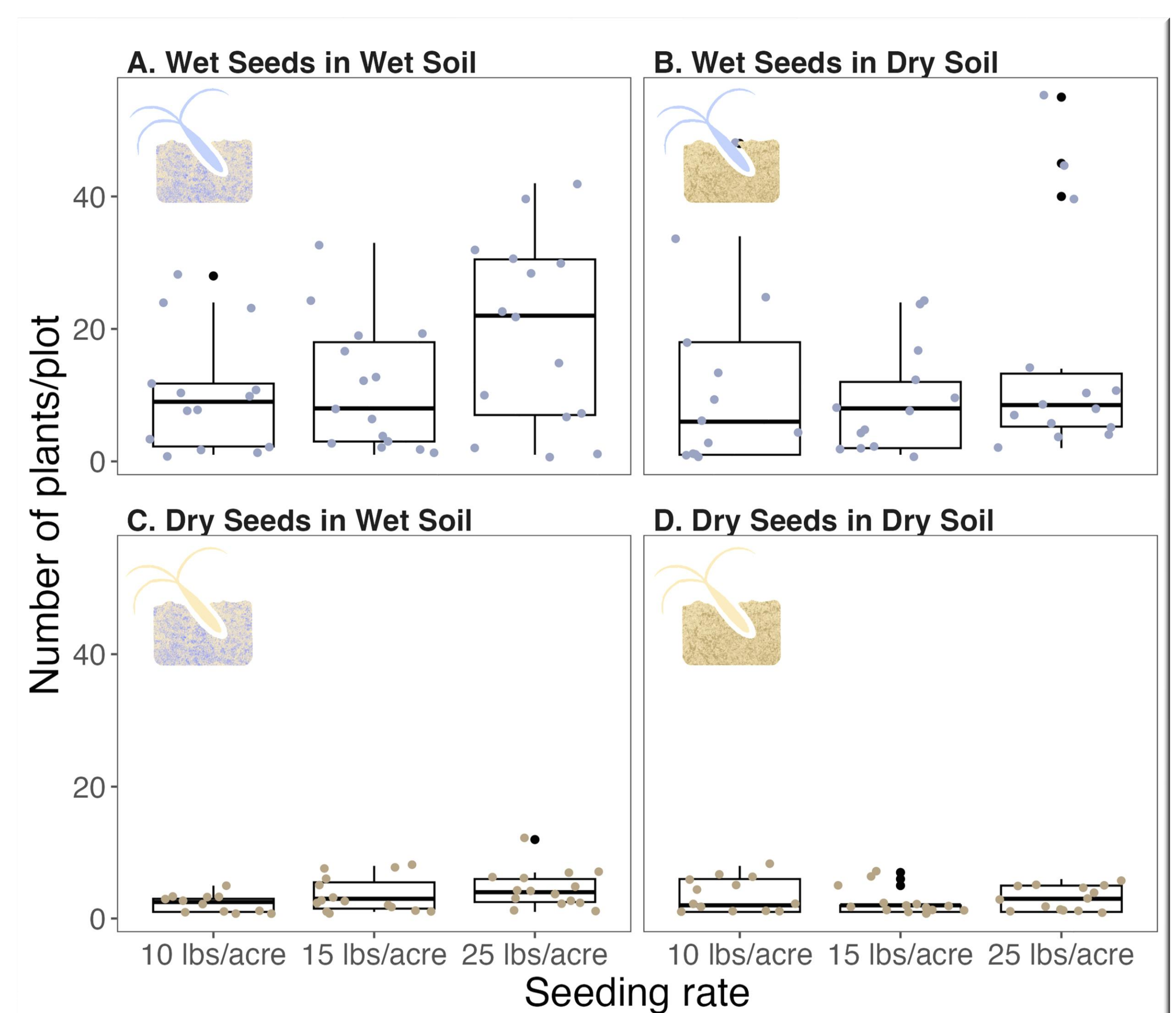
16 Latin squares with 16 plots:
4 plots x 3 seeding rates | 4 plots weeded treatment

Take Aways

1. Harvesting from sites with high seed fill increases the likelihood of greater wiregrass seedling density.
2. Wiregrass plants established and reproduced even with competitors.
3. Over time, the wiregrass plants should produce sufficient fuel to reinstate frequent fire regimes.

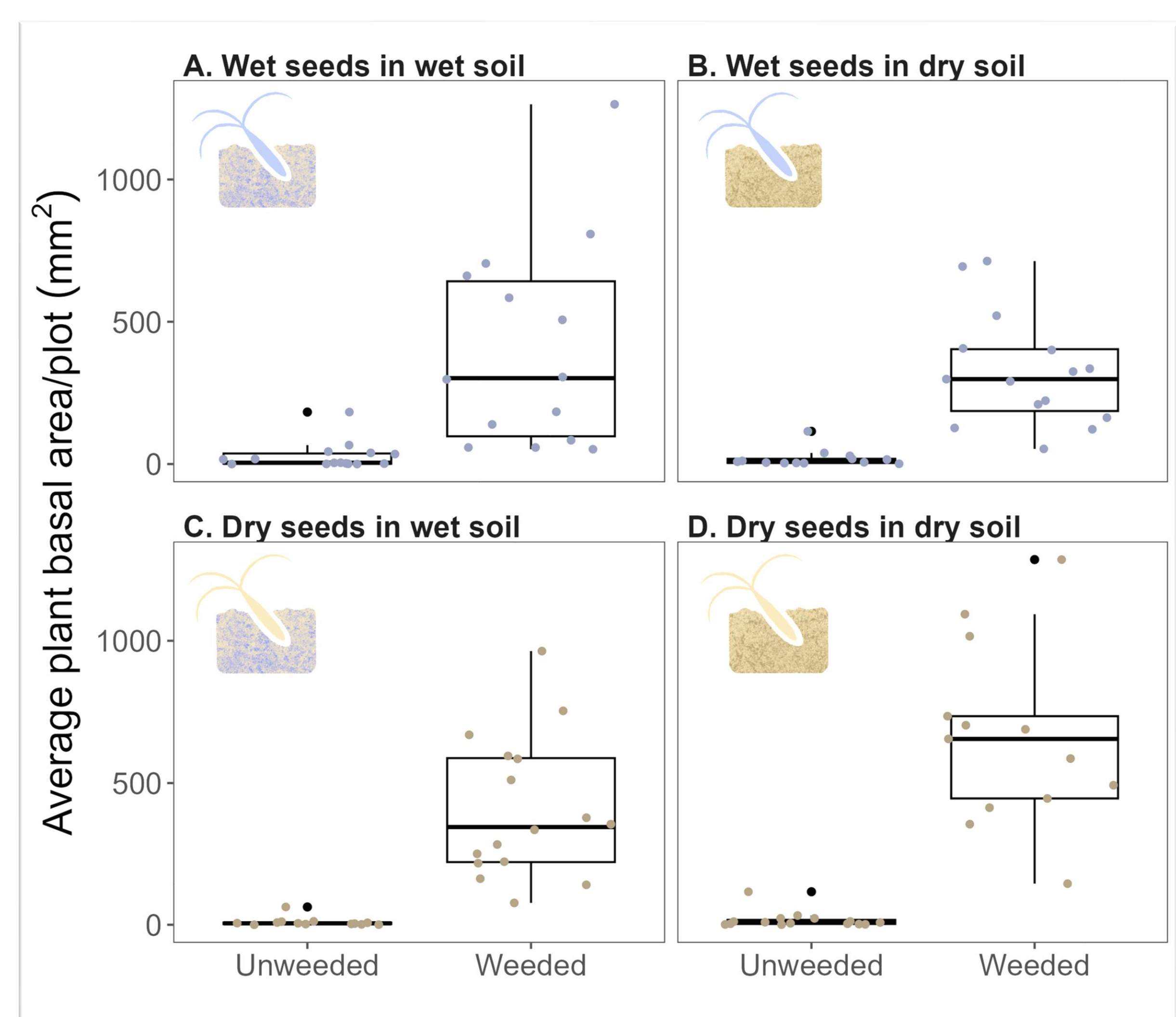
Seeding Rates

Although seeding rates had no significant effects, there were more plants in plots with seeds from wet sites in the first year, likely because there were more filled seeds collected from the wet site.



Weeding

Plants growing in weeded plots were significantly larger than those in unweeded plots. More plants also flowered in weeded plots.



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