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Questions and Considerations in Using Common Garden Experiments""; ""3.6.1 What to Use: Seeds, Seedlings or Ramets?""; ""3.6.2 Can and Will Potential Maternal Effects be Controlled?""; ""3.6.3 How Many Gardens Will be Used and Where Should They be Placed?""
""3.6.4 Given Space and Time Limitations, What Sample Sizes (Number of Individuals, Populations, and so on) Can be Used?""""""3.6.5 How Can Blocks be Used to Control Statistically for Environmental Heterogeneity Within the Garden?""; ""3.6.6 Will Naturally Occurring Vegetation in a Field Garden be Left Intact or Will the Garden be Weeded?""; ""3.6.7 Will Environmental/Climate Data be Obtained for the Sites of the Source Populations?""; ""3.6.8 Will any Environmental Variables be Purposely Manipulated?""; ""3.7 Utility and Applications of the Common Garden Approach""
""4 Reciprocal Transplant Experiments""""""4.1 Introduction""; ""4.2 A Brief Aside on Adaptation""; ""4.3 Testing Hypotheses with the Standard Design""; ""4.4 Diversity of Reciprocal Transplant Approaches""; ""4.4.1 Manipulating the Planting Site""; ""4.4.2 Comparing Planting Site Conditions""; ""4.4.3 Modification and Expansion of Reciprocal Transplant Designs""; ""4.4.4 Long-Term Experiments""; ""4.5 Selection Coefficients and Selection Gradients""; ""4.6 Reasons for the Lack of Local Adaptation""; ""4.7 Reciprocal Transplant Experiments: Where Do We Go from Here?""
""5 Molecular Approaches""

Sommario/riassunto

Plant evolutionary ecology is a rapidly growing discipline which emphasizes that populations adapt and evolve not in isolation, but in relation to other species and abiotic environmental features such as climate. Although it departs from traditional evolutionary and ecological fields of study, the field is connected to branches of ecology, genetics, botany, conservation, and to a number of other fields of applied science, primarily through shared concepts and techniques. However, most books regarding evolutionary ecology focus on animals, creating a substantial need for scholarly literature wi