

GUEST EDITORIAL

***PINUS RADIATA* GENETIC SURVEY**

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It is appropriate that this introduction be written by a Californian, for this series of papers investigates the roots of *Pinus radiata* in New Zealand, and those roots are Californian.

The Genetic Survey Experiment is both important and noteworthy.

It is noteworthy because it pioneers some innovative methodology—for example, terpene ratios, coefficients of variation over time, and covariance adjustments of data. It is one of the first to employ an interlocked non-contiguous-plot field layout, and surely the first to employ the rectangular version of it. Some of the advantages and disadvantages of these innovations with respect to different traits and purposes are apparent in the results obtained.

It is noteworthy because it has effectively investigated differences in population structure, and in the mating patterns that result in large plantations and in the different native populations. And it is noteworthy because the different amounts of inbreeding and full-sibbing inferred in these different settings call into question the embarrassing habit that foresters have picked up of calling families resulting from open-pollination “half-sib families”, with resulting errors of quantitative estimation of heritabilities and other genetic parameters.

It is noteworthy because it compares estimates of trait differences based on clonal material with those based on seedling data.

It is noteworthy because it opens the questions of “how many” and “how different”, with respect to extant land-races of *P. radiata* in New Zealand, and elsewhere.

Finally, it is important because Burdon and his colleagues have mined the wealth of information produced by this landmark experiment, and now present it in thoughtful detail. This not only provides good data points with respect to many traits as they are expressed in the experiment’s field sites, but it effectively opens questions about other sites, other traits, early selection, and the future of *P. radiata* as a major crop species.