



## ABSTRACT

The Forest Stand Generator, STAG, is a microcomputer-based program that uses statistical routines to produce a projection set composed of individual tree measurements of diameter at 4.5 feet above ground (called the diameter at breast height or DBH), total height, height-to-crown base, species, and tree expansion factor. When data sets are not complete, STAG can be used to produce a projection set for a wide class of inventory procedures. The authors will discuss the estimation procedures used by STAG to (1) fill in missing measurements of tree height, height-to-crown base, or both; (2) generate stands from summary statistics; and (3) convert stand table data—numbers of trees by DBH classes and species—to individual tree records, so that these projection sets, composed of complete individual tree records, can be analyzed by the California Conifer Timber Output Simulator (CACTOS) for simulation of tree growth and mortality, even though the initial data sets could not have been used with CACTOS. Also discussed are the predictive equations and analytic procedures used to produce a projection set for these three categories of data availability. Recommended uses of STAG and the type of data required for accurate development of projection sets are presented.

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*Continued inside back cover*