

APPENDIX 1: Experimental Designs

Shade house Trial (Chapter 3)

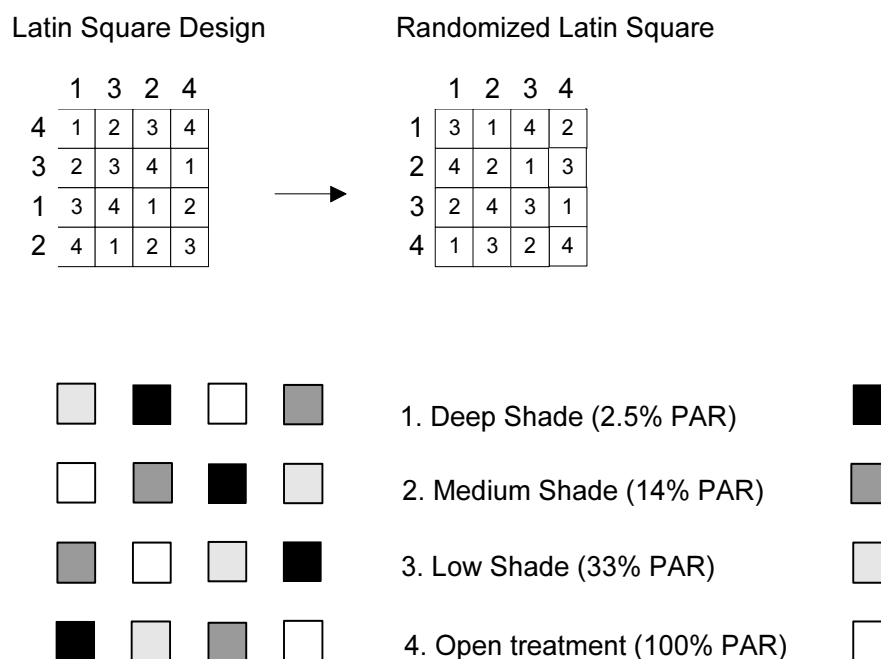


Figure A1.1 Randomised Latin Square design of shade house experiment with each row and column containing four different light treatments of deep shade (2.5% PAR), medium shade (14% PAR), low shade (33% PAR) and an open treatment of full daylight (100% PAR).



Figure A1.2 Shade houses at the Forestry Commission nursery, (Northern Research Station, Roslin, Edinburgh). Looking down a column with the open treatment in the forefront.

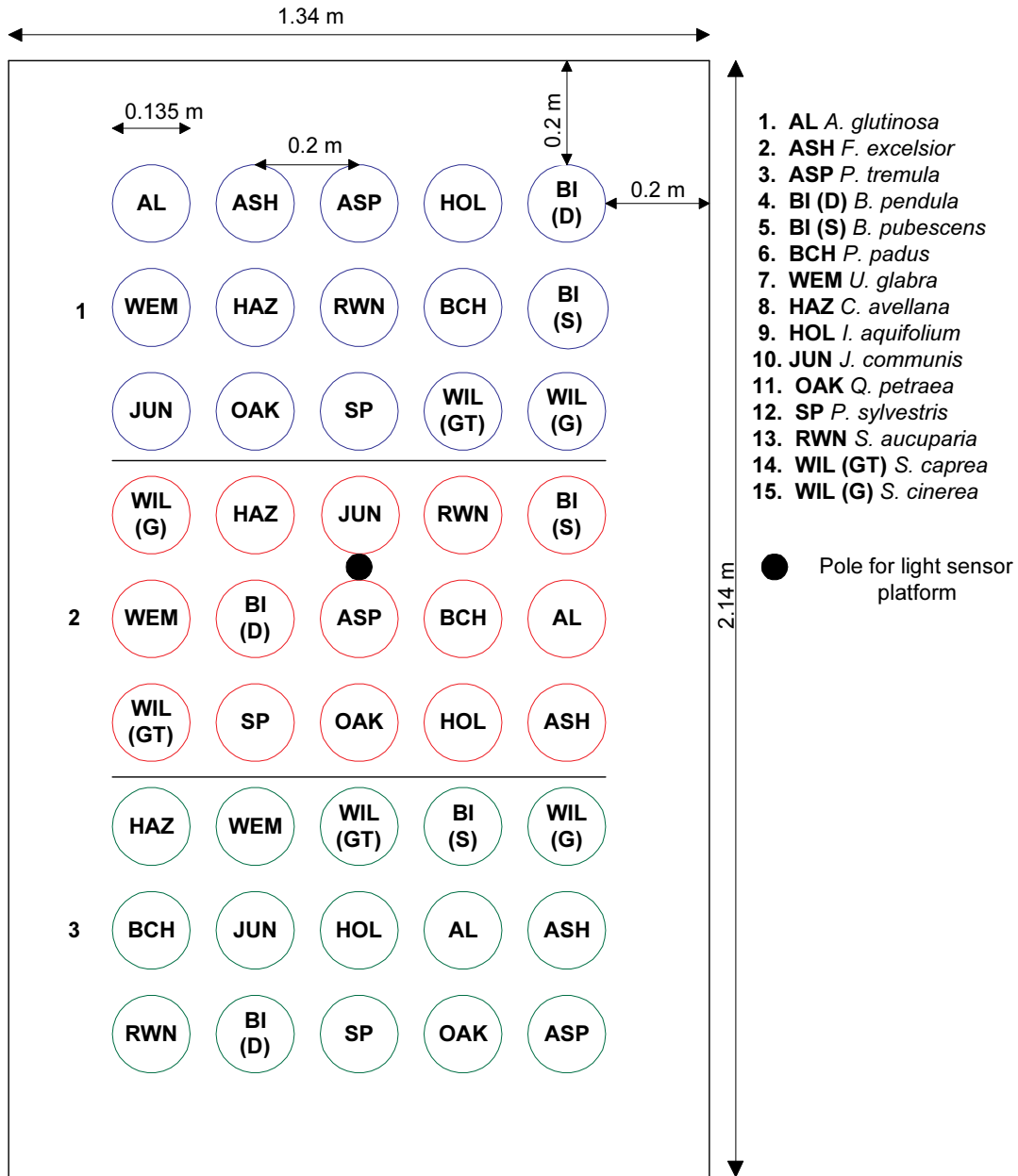


Figure A1.3 Experimental design within one shade house or open treatment. The plot was divided up into three sub-plots (reps). Each sub-plot contained 15 randomised seedlings with each individual representing one of the 15 species (45 plants in total per plot: 15 species x 3 reps). The stake (1 m in height) in the centre of the plot with a removable wooden platform was used for the placement of PAR and temperature and humidity loggers.

Field trial (Chapter 5)

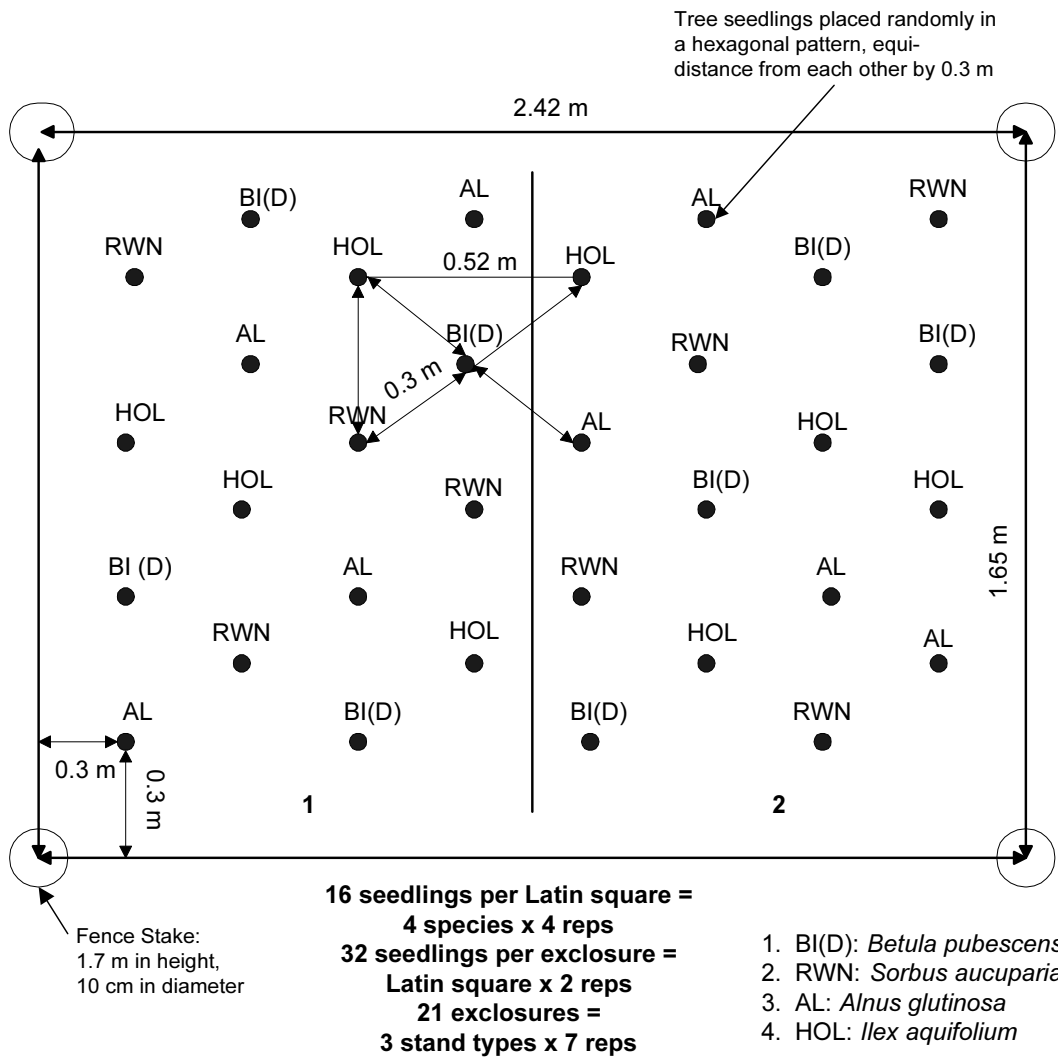


Figure A1.4 Experimental design within each enclosure. Each enclosure was divided into two sub-plots where seedlings have been planted in a hexagonal pattern in two randomised Latin Squares (4 species x 4 reps per Latin square). One enclosure was placed in each of the three stand types (open, pole and old-growth) within a single block. There were seven blocks which were well-distributed around Loch Beinn a Mheadhoin in Glen Affric.



A1.5 *Pinus sylvestris* stand development stages / treatments in Glen Affric: a) Open (stand initiation); b) pole; c) old-growth.

