

Block design and block layout for admixture planting trial

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Each block comprises two plots, the plots have the two different treatments: Local (4 plants from locally sourced seed per species) and the Admixture (4 plants from the admixture seed per species). The number of blocks represents the number of times the treatments are replicated.

We want 20-25 replicates (blocks) established at each study site, more if resources permit.

Blocks should be on a piece of ground that is as uniform as possible e.g. same height up slope, similar ground cover, wetness, aspect, distance from a pre-existing tree etc. Different blocks can sample a limited amount of this variation at a site. Avoid drainage lines, gullies, rock outcrops, dense shrubs, being directly under established tree canopies. There is no maximum distance the blocks must conform to, assuming they are in the same land management unit.

Each block will be identified by two permanent stakes, 15 m apart, forming the reference point from which to plant and later locate the three species.

Each circle will contain either all local provenance plants or all admixture plants. The location of local and admixture treatment plots are to be randomized (left or right) within blocks each time.

Blocks should be a minimum of 7 m apart, measured from the nearest Acacia or Eucalypt This is the same distance the closest Acacias will be between the two plots within a block. Clear permanent labels on the stakes will be critical to separate the different blocks (block number), and plots (treatment type) in the future. Recording GPS locations of the permanent stakes will also be a critical part of long-term records. Associated with each area could be a satellite image with a drawn outline of the blocks and their position.

Depending on the nature of the site, it may be necessary to reduce the distance between the two stakes (ie between plots) or between the blocks, in order to fit in twenty blocks.

LAYOUT OF ONE OF THE 25 BLOCKS SHOWING THE TWO PLOTS (one for each treatment)
There are four plants of each species per plot (we are aiming for 25 blocks, 20 is minimum)
Each plot contains all admixture or all local plants. The location of these two types of treatment plots are randomized in each block.

