

KARRI SEED SUPPLIES SAMPLING PROCEDURE

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1. Preliminary

Successful Karri regeneration operations depend primarily upon the presence of adequate supplies of mature seed at the time of regeneration burning. The following notes serve to condense current practice into a readily usable source of reference governing collection of information for the prediction of Karri seed supplies based on data obtained from the collection of the contents of seed trays set out in cut over bush awaiting regeneration.

The procedures which follow are aimed at providing the maximum information in return for the absolute minimum of effort. They will, therefore, be adopted as standard procedures for all Karri regeneration operations.

2. Action at the start of cutting

- (a) Number each new landing consecutively for later reference.
- (b) Select two cull trees per landing, to be felled later as a final check on quantity of seed available.
- (c) In conjunction with the District Officer, the D.F.O. will prepare a F.D. 480 for dispatch to Research, together with -
 - (i) Floral samples.
 - (ii) 1 lb. of fresh capsules if present.

The samples should be taken from 10 - 20 trees, if accessible; and

capsules of different crops should be kept separate.

3. Frequency of seed tray collections

The frequency of collection and the location of the seed trays is varied so as to maintain a complete picture of all stages in the development of the seed crop. Procedure will be as follows -

- (a) Quarterly collections - from formation of bud initials to the flowering stage

2 seed trays per landing will be set under seed trees located about 5 chains apart.

- (b) Monthly collections - following flowering to the setting of fruit

2 seed trays per landing as before, plus 2 extra seed trays located in openings at a distance equivalent to half the height of the seed tree away from the trays under canopy.

Where staff is not available, monthly collection of seed trays may be deferred until the spring, following flowering.

- (c) Monthly collections - when mature fruit has set

Trays as in 3 (b), but the trays located in the openings will be moved out to a distance equivalent to full tree height away from the trays under canopy.

It is essential that monthly sampling be maintained at this stage.

- (d) End of collections - when major germination has occurred.

4. Clearance and dispatch of Seed Tray Contents

- (a) Seed trays will be cleared on the second day after rain. Collecting bags will be supplied by Research together with labels stating the descriptive information required for each collection.
- (b) Shifting Trays - at each collection, trays will be moved about 5 chains to a new position not influenced by seed trees previously sampled.
- (c) Marking positions of seed trays - access lines to seed trays will be pegged in the field to facilitate subsequent re-location.
- (d) Collections from burnt stands - collections from stands following regeneration burning or wildfires must be clearly labeled.

5. Confirmation of seed supplies

In addition to the information obtained from the seed tray collections, final confirmation of seed supplies is required before regeneration burning is carried out.

Action immediately prior to burning will therefore be -

- (a) Inspection with binoculars

The District Officer and the D.F.O. will confirm the presence of adequate quantities of capsules over the whole stand by inspection with (10 x 50) binoculars.

- (b) Falling cull trees

The two cull trees, selected under 2 (b) will be felled and 1 lb. of capsules will be forwarded to Research for testing.

6. Advice of seed yield and quality from Research

- (a) Initial sampling at start of cutting 2 (c) (ii)

Results will be returned to Divisions within a fortnight to indicate the value of the crop for seed collections.

- (b) Seed tray collections 3 (a), (b), (c)

Results will be returned to Divisions by 1st December and 1st March each year to assist early programming of regeneration burning.

- (c) Cull tree samples 5 (b)

These results will be combined with those from the seed trays on the dates stated (6 (b)). They will confirm the D.F.O's. estimates of seed availability and will enable him to make the final decision as to whether burning can proceed.
