

**MANAGEMENT GUIDELINES FOR EUCALYPTUS
(*EUCALYPTUS CAMALDULENSIS*) SEED STAND
BY**

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An established seed source for Eucalyptus camaldulensis at Gede



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Photos courtesy of Dr. Balози B. K.

INTRODUCTION

Eucalyptus are some of the most versatile tree species, growing in many different agro-climatic zones in the country. They are found from the high lands to the lake basin, from Eastern and Central to the Coastal lowlands. *Eucalyptus* are grown for pulp, transmission and telegraphic poles and for timber. In Kenya, *E. grandis*, *E. camaldulensis*, *E. tereticornis*, *E. urophylla* are the most popular species. *E. grandis* does well in higher, cooler areas of the country while *E. camaldulensis*, *E. tereticornis*, *E. urophylla* perform better in the warmer areas. Rotations vary from 8 years to 30 depending on the intended end use and site.

Due to increased demand for quality tree seed of *Eucalyptus* for afforestation and reforestation, a seed stand of *E. camaldulensis* was established in Gede in early June 2008 with the aim of ensuring proper management of the seed stand and production of high quality seed.

REASONS FOR THE ESTABLISHMENT OF THE SEED STAND

- Increased demand for *Eucalyptus camaldulensis* seed for afforestation/reforestation
- Most old seed sources were not well planned leading to hybridization with other *Eucalyptus*.
- Most old seed sources were established as provenance trials and their management did not spur quality seed production of reasonable volumes.
- Management regimes for most current seed sources were not adhered to hence they produce little seed of questionable quality and purity (not hybridized) and are costly to collect from.

MANAGEMENT GUIDELINES

The seed stand was established on 6th and 7th June 2008 some 500 m from the station near the Arabuko-Sokoke forest. The seedlings were raised in Kitui (KEFRI RRC) and brought to Gede when they were ready for planting. No information on the seed source and how they were raised in the nursery is currently available.

- **Planting date:** June 2008
- **Seed source:** KEFRI-Kitui
- **Provenance:** Kitui
- **Spacing:** 3.5x3.5 m.
- **Total area:** 1 ha
- **Number of trees:** 800
- **Site preparation:** site was over grown with natural vegetation. Site had not been used for over 20 years. Area was clear-cut and trash put in 3 lines (figure 1). Some trash along the lines was burnt. No planting was done on trash lines.
- **Maintenance:** Weeding and climber cutting every 2 months during rainy season and every 3 in other months. Firebreaks to be judiciously maintained before fire season.
- **Thinning:** First thinning at end of year 2 to reduce stocking by 50% (400 trees), increase spacing to 7x7 m.
- **Type of thinning:** Systematic thinning to remove every 2nd row
- **Silvicultural treatment:** No pruning of branches; increased spacing meant to spur dense crown development. Suppressed trees to be removed. Any coppices to be killed.

Other related activities

- Assess growth (ht and dbh) and crown form to ensure tree form is good for copious seed production.
- Assess tree health regularly (diseases and pests every quarter).
- Evaluate stand at age 4 (growth and crown development) and draw new guidelines.

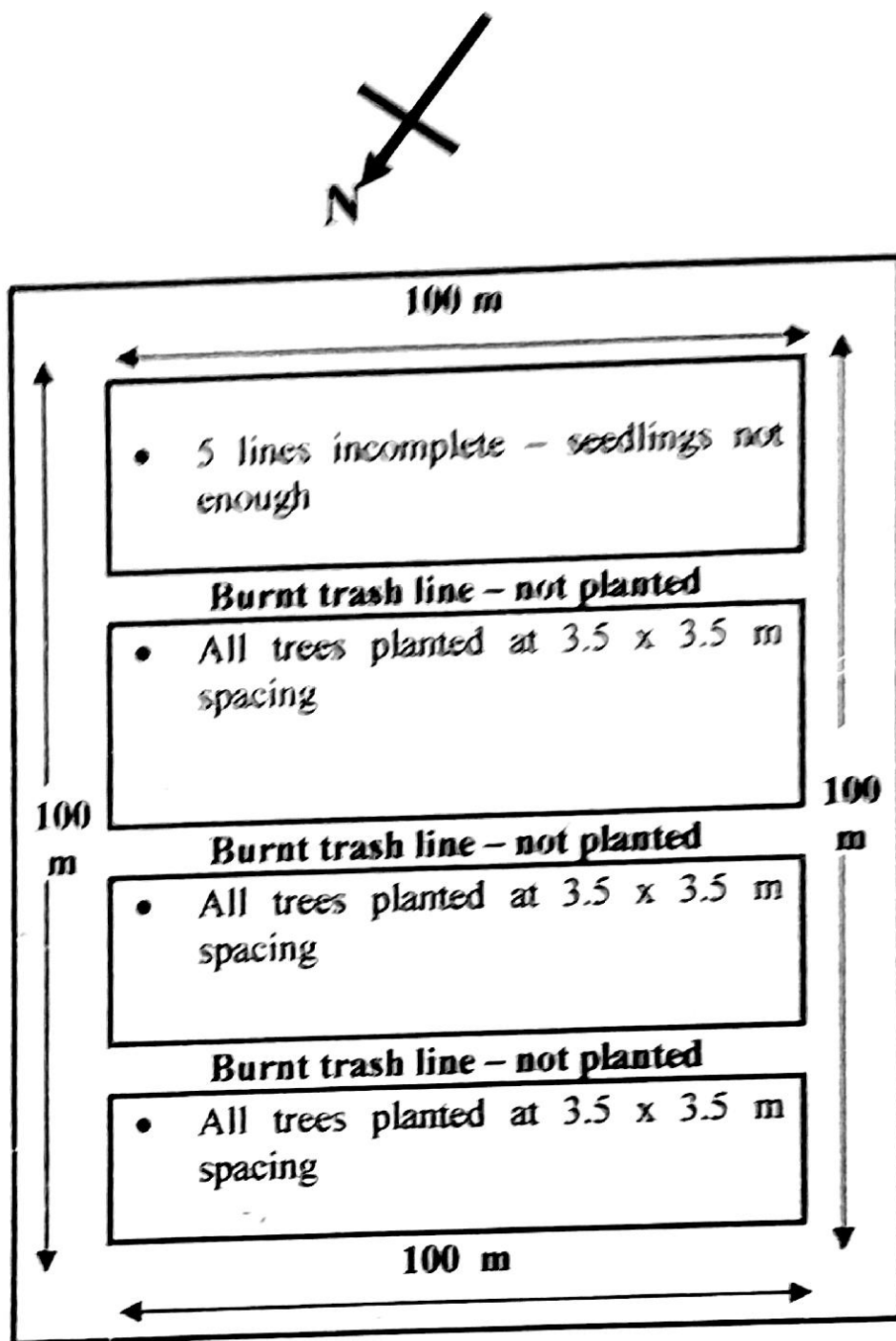


Diagram 1: Plot layout of Eucalyptus camaldulensis seed stand