

Farm Forestry research projects - DPI Hamilton, 2006

These projects cover about 300 research & demonstration sites established (1981-2005) in collaboration with landholders on more than 100 SW Victorian farms, from Edenhope (NW) to Portland (SW) to Carngham (E).

1. **Carngham agroforestry systems (1981):** A 30-ha site comprising 5 replicated pine/sheep agroforestry systems; a long-term project to assess agricultural and timber returns.
2. **Demonstration timberbelts (1984):** 3 sites of 2 and 3-row belts of high-pruned timber species plus unpruned shelter/habitat species.
3. **Hamilton tree spacing project (1984-85):** 4 x 8-ha sites, spacings from 25-625 trees/ha, 20 species; a long-term project to assess impacts on pasture, water balance and timber.
4. **Hamilton species assessment and pruning project (1985):** 4 x 2-ha sites, each with ~40 replicated species treatments; half of the trees were pruned to assess impact on form for timber production.
5. **Trees for saline discharge areas (1987-90):** 51 saline discharge sites including replicated species and mounding treatments and salinity/waterlogging gradient studies established and monitored under NAP, CRC Salinity and GH CMA RCIP projects.
6. **Timberbelt alley system (1989):** A 20-ha alley system including 5 timber species, shelter/habitat species, and thinning and pruning treatments, established under a TIS project.
7. **Monterey & Mexican cypress belts and woodlots (1992):** 13 sites, each with 6 replicated species/provenance treatments.
8. **Acacia melanoxylon provenance/layout project (1993):** 6 x 1-ha sites with replicated provenance (20) and *A. mearnsii* "nurse crop" treatments.
9. **Permanent Sample Plots (1993-95):** 66 woodlots, 20 species and a wide range of sites established and managed under GRIFF, DPIE and NHT projects with landowner participation.
10. **Demonstration woodlots:** Demonstration woodlots on 67 farms, covering 25 species, established and managed under GRIFF with landowner participation.
11. **Timberbelt spacing and layout project (1994):** 16 timberbelts (pine or spotted gum) with 3 replicated spacing treatments.
12. **Acacia species and provenance projects (1994):** 2 x 1.4-ha sites with 36 replicated seedlot treatments, established with CSIRO and ACIAR.
13. **She-oak provenance projects (1994):** 3 *Allo. verticillata* and 3 *Cas. cunninghamiana* sites of 0.7 ha; 10 replicated provenance treatments.
14. **Pinus radiata & Cupressus lusitanica woodlots (1994):** 1 ha of pines demonstrating 3 stockings, and 0.4 ha of Mexican cypress.
15. **Eucalypt provenance projects (1995):** 23 x ~0.8-ha sites of spotted gums, *E. saligna*, *E. cypellocarpa*, red ironbarks or *E. viminalis*, established under GRIFF. Each has 5-10 replicated provenance treatments.
16. **Basalt plains blue gum project (1996):** 2 pulpwood sites with replicated factorial mounding/ripping and fertiliser treatments.
17. **Cypress development project (1997):** Woodlot of cuttings taken from superior trees in 1990s woodlots for development of improved *Cupressus* for farm forestry.
18. **Black and Silver Wattles project (1997-98):** 8 x 0.7-ha sites with 15 replicated provenance treatments. Five sites for pulpwood production, in comparison to blue gum, and 3 sites for sawlog production.
19. **Australian Low Rainfall Tree Improvement Group (ALRTIG):** 11 x 1-2 ha progeny trials/seed-orchards (2001-2002) of *C. maculata*, *E. cladocalyx*, *E. occidentalis* or *E. sideroxylon*, each with ~100 replicated families. One spotted gum genetic-gains trial (2003) of 8 seedlots. ALRTIG is a co-operative national project supported by JVAP & state governments.
20. **E. saligna progeny trial (2002) with ENSIS:** 2.5 ha with 82 replicated seedlots.
21. **Sawlog production from blue gums (1997):** 4 ha with 3 replicated stockings (100, 200 & 400 trees/ha).
22. **Eucalypt hybrids project (2005) with ENSIS:** 1 ha with 32 replicated treatments. Parents are *E. camaldulensis*, *E. grandis*, *E. globulus*, *E. saligna*, *E. tereticornis*, *E. urophylla*, *E. pellita* & *E. dunnii*.
23. **Cypress hybrids and clones (2005):** 0.4 ha, 5 replicated hybrid/clone treatments developed by Forest Research NZ for canker resistance, form and growth.