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## Operating an Indigenous Plant Nursery: My Experience in the Field

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### INTRODUCTION

Indigenous plant nurseries are a relatively new concept in the horticultural industry. In Victoria most have developed within the last 15 years. These nurseries are essentially based on ecology rather than horticulture, therefore, the way they operate is vastly different and sometimes contradictory to conventional nurseries.

### DISCUSSION

**Plant Identification.** Growing indigenous plants requires a good knowledge of the local flora. Some plants are extremely small and in a horticultural sense do not attract the client. Others may only flower every now and then (e.g. some monocots) or are life forms which are under the ground for part of the year (e.g. lilies, orchids). This can make the task of positive identification a long process. In situations where the existing indigenous flora is to be removed prior to job commencement it may be necessary to dig up some plants and grow them on in the nursery. This can result in the introduction of new weeds and diseases into the nursery.

**Original Flora Depleted or Non-existent.** On the Bellarine Peninsula where I work over 90% of the original flora has disappeared. It is therefore necessary to use historical records, photographs, advice from long-time residents, and locate small remnant reserves to build up a better picture of the local ecology. This is important for the selection of plants in future vegetation projects.

**Seed Collection.** Seed collection is done mainly through the summer months from December to late January. Variation in the time of seed collection can be due to local weather patterns (either too wet or too dry), variation in seed set from one population to another, or the lack of pollinating agents. Some seed needs to be collected quickly after it has matured, e.g. native pea species with explosive seed dispersal mechanisms. A range of provenances from each species is also highly desirable, as is the collection of seed from a number of individuals within a population.

**Ability to Supply.** In a large revegetation project it is necessary to allow indigenous nurseries at least one summer of seed collecting time. Planting out in the field is usually best done in autumn. Complicating factors include variation in seed supply from year to year and place to place, and seed maturity occurring outside the summer period, e.g. *Bursaria spinosa* has a short seed viability but the seed does not mature until autumn, or *Themeda triandra* which is dormant in the winter months. In both cases it could be best to carry the revegetation project through until the spring.

**Compulsory Competitive Tendering.** The collection of seed using the guidelines outlined above means an increase in plant costs due to the extra labour and time involved. Some nurseries who are not ethically aligned to these guidelines may produce large numbers of plants ignoring provenance diversity. As the question of provenance cannot be easily proved or disproved, the opportunity for less reputable operators to take advantage of their clients is becoming more apparent as the market for indigenous plants increases.

**Environmental Weeds.** This is an issue that threatens the viability of vegetation communities the world over. Up to 65% to 70% of exotic species in Victoria have been introduced deliberately for ornament (most species) or utility (Carr et al., 1992). Many plants invading the Australian bush are ideal horticultural subjects, e.g. *Pittosporum undulatum* (sweet pittosporum) which is an Australian plant that is invading many other native vegetation communities. The horticultural industry sells it because it has a good form all year round, has highly perfumed flowers, is extremely hardy, and is easy to propagate. The selling of this species is now listed as an "environmentally threatening process" under the Victorian Flora and Fauna Guarantee Act. Similarly, hybridisation in the field between indigenous and introduced plants of the same genus has also assisted weed invasion (Carr et al., 1992).

#### LITERATURE CITED

Carr, G.W., J.V. Yogovic, and K.E. Robinson. 1992. Environmental weed invasions in Victoria - Conservation and Management implications. DCNR & Ecol. Hort. pp. 5-10.

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## Some Observations of the Effect of Smoke on the Germination of South-Eastern Australian Native Species

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#### INTRODUCTION

An initial "screening" program was initiated in 1995 by the Melbourne Indigenous Seedbank (MIS) to investigate the effect of smoke on selected Victorian plant species. These traditionally difficult-to-germinate species were selected because they belonged to the families discussed by Dixon et al. (1995) as being responsive to smoke treatment in Western Australia. The seed of species that were selected for testing came from the seed storage facilities of the MIS or from donations of seed from the community. Species not acquired from storage or donation will be collected and tested through 1996-97 to complete the "screening" process. Additional information in relation to the effect of plant-derived smoke upon germination has come from "smoking sessions" facilitated by Greening Australia Victoria, which have enabled nursery growers to smoke treat seed from selected species and then propagate these under conventional nursery conditions.