

Therefore, activity should also be considered. Treatment 1 (no boric acid) was active throughout and had the lowest dry weight, with little soil added by the *mastotermes*. This indicates some repellence in treatments 2 and 3 that, although remaining active, they were not consumed as readily as treatment 1.

In October 1995, when the replicated trial was removed, 48 baits with 0.5% boric acid were installed in the 4.5 hectare orchard. These were replaced as required. Throughout 1995 between eight and fifteen trees per month were lost to mastotermes. In January 1996 mastotermes was still active and trees were being lost at the same rate as before treatment. We assumed that the amount of boric acid being consumed was not enough to have an impact on such a large colony. A total of 30 active sites within the orchard were then treated with Mirant® (a commercially available product containing mirex). This appears to have been effective as no further losses have occurred since treatment.

This exercise shows some of the difficulties involved with mastotermes research on horticultural properties and our reliance on Mirant®. It also highlights the importance of current mastotermes research by the Joint Termite Group in Darwin and the potential impact on further development of commercial tree crops in northern Australia.

Acknowledgment

We thank Mr Ian Curtis for his support and patience.

Reference

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BAMBOO RESEARCH 1995

K Blackburn and M Traynor

The bamboo research project is partially funded by RIRDC and is an Australian joint research investigation combining inputs from:

- The University of Central Queensland, Rockhampton (Principal Organisation).
- Bamboo Australia, Belli Park, Eumundi, Queensland (Commercial grower).
- Queensland DPI, Bundaberg Research Station.
- NT DPIF, Coastal Plains Research Station.

The objectives of the project, which was approved and funded in August 1994, are:

- To identify suitable species for the production of bamboo shoots under Top End conditions.
- To gain expertise in the cultivation of selected species and to develop cultural practises such as irrigation and fertiliser scheduling for optimum shoot production.
- To release trial quantities of fresh product to assess its market potential.
- To collate and extend information on species performance.

There is, effectively, no production of bamboo shoots within Australia. Canned bamboo shoots are currently imported from SE Asia with a retail price between \$3.00 and \$6.00 per kg and an estimated Australian consumption of 1, 357, 000 kg (value \$6 M) per annum. A potential export market exists for fresh shoots into Asian markets, particularly Japan, where they represent the largest category of imported fresh vegetables into that country (44 - 85, 000 tonnes pa.).

An irrigation and nutrition trial on bamboo (Joint RIRDC/DPIF trial) was planted on Friday 24 February 1995 with plants shipped personally by Mr Dart. The bare-rooted plants were planted directly into the field under heavy monsoon conditions and to date no losses have occurred. The bamboo species, *Bambusa oldhamii*, was chosen for the trial as it was less expensive than the two other preferred species *Dendrocalamus asper* and *D. lattiiflorus*.

The trial design is a 3x3x3 factorial arrangement with a split plot design. The trial covers approximately one hectare and contains 162 clumps or plants.

- 3 Irrigation levels 40, 60, 80% evaporation replacement.
- 3 Fertiliser rates
- 3 Replications

Data collection will include:

- Number of shoots produced, size and height
- Diameter of culms at the 7th node above ground
- Leaf and soil analyses at regular intervals
- Soil moisture tensiometer and EnviroScan[®] monitoring
- Phenology of shoot production in relation to treatments and to local conditions
- Side branch formation on new culms
- Leaf appearance and senescence

At this stage of the trial, it is anticipated that the irrigation and nutrition treatments will be imposed when the plants are about 2 years of age, which will be early 1997. Current management allows irrigation inputs according to tensiometer readings which is daily irrigation. Fertiliser applications include monthly applications of 100 g NPK and 150 g urea per clump alternatively. The growth rates of the trial plants during 1995 have been very encouraging so far and the plants have remained uniform and vigorous. During the year there appeared to be no dormant stage during the cooler

dry season conditions but shoot production increased significantly from October, with rain and higher temperatures, into the wet season.

EVALUATE BAMBOO VARIETY CONSIDERED SUITABLE FOR CULINARY, WIND BREAK AND TIMBER PURPOSES

K Blackburn, M Traynor

An older collection of bamboo (12 species) gathered from around the Darwin area is now 3 years old but has only been managed well for the past 2 years.

A new collection of bamboos (19 species) which include edible, timber, windbreak and ornamental types has been established. The plants were purchased mainly with DPIF funds. This collection includes 7 plants each of *D. asper* and *D. latiflorus*. these are 2 of the preferred 3 species for edible shoot production.

EVALUATION OF THE POTENTIAL OF CENTRALIAN NATIVE SPECIES AS CUTFLOWERS

G Kenna, J Mansfield

Central Australia is renowned for its diverse range of native flora. The number and types of native plants which grow in this region under favourable seasonal conditions are numerous. Much of this flora is unique to the Central Australian region and has foliage and flower characteristics which may make them suitable for the domestic or export native cutflower industry.

The potential of many of these plants is yet to be evaluated. Funding from the Rural Industry Research and Development Corporation has been obtained to conduct a preliminary investigation to assess this potential.

The first stage of the project has been to identify what research and development work has been conducted and to identify those plants with potential commercial use, including the ability to grow the plants under commercial cultivated conditions. A literature review detailing this work was completed in February 1996 and has been distributed to various libraries.

The second stage of the project involves the field collection of various native species, preliminary investigation of their potential as cutflower or foliage and how efficiently they can be propagated and grown under cultivated conditions. This stage however has been delayed indefinitely due to the continuing extremely dry conditions in the Central Australian region. Rainfall in the Alice Springs area for 1996 up to the end of July totalled 46mm. Many other locations in the region have had similar rainfall totals or less. These conditions are not conducive to plant growth or flower production.