

From chemical analyses and bioassays of extracts we have confirmed much of what we predicted. Fruits and seeds of ecological groups that have significant resources invested in individual propagules and/or persist for extended periods in the warm, moist environment on the forest floor are a particularly rich source of bioactive defence chemicals. Bioassays on extracts from these groups show highly localized occurrence, and often very potent, biocidal activities within specific layers of the propagules. Many of these extracts are more effective than some antibiotics, fungicides, and insecticides currently on the market. Overall, using this approach we have found strong bioactivity in 67% of the extracts we have examined, this is much higher than current industry “hit” rates that are less than 2%.

Our “knowledge-guided” approach offers very significant opportunities to hasten the discovery from our tropical rainforest of new chemicals for medicine, agriculture, and industry that could have significant economic benefits to Australia.

New Plants for Tropical Landscapes®

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The definition of a “NEW” plant is very relative, depending upon personal perception, availability, and location. Its progression from being a “novelty” to an “old faithful” is influenced both by supply factors such as growth rate and ease of propagation and demand factors such as profile and application.

SOME EXAMPLES GROUPED BY TYPE OF “NEWNESS”

Unsung Aussies in Exotic Gardens. Species with a natural distribution extending from Australia to southeast Asia, that are in cultivation overseas, but little known or untried in Australia. The following plants illustrate this point:

- *Pogonatherum paniceum* (waterfall grass), wild species type of baby panda bamboo.
- *Tristellateia australasiae* (bagnit vine or climbing galphimia), Malpighiaceae
- *Dipteris conjugata*

Exotic Species Not Yet Introduced.

- *Dipterocarpaceae* spp.
- *Ficus celebensis* (with *Pandanus toei*)
- *Stiffia chrysantha*, Asteraceae
- *Pereskia corrugata*, Cactaceae
- *Cordia sebestena* (variegated), Boraginaceae

Exotic Species Introduced into Cultivation. Here, but still in “collectors” phase. Plants not quite available or in very limited supply. Often attracting a premium price. The following plants illustrate this point:

- *Pisonia grandis* ‘Alba’ (moonlight tree), Nyctaginaceae
- *Fagraea fragrans* (tembusu), Loganiaceae
- *Mesua ferrea* (Ceylon ironwood), Clusiaceae

- *Cananga fruticosa* (dwarf ylang-ylang), Annonaceae
- *Dracaena* spp.
- *Gardenia carinata* (kedah gardenia,) Rubiaceae
- *Quisqualis indica* 'Plena' (double Rangoon creeper)

Introduced Species Established as Landscape Plants. Typically readily and consistently available from several sources, generally at or near standard pot prices. The following plants illustrate this point:

- *Osmaxylon lineare* (Thai dancer), Araliaceae
- *Saraca thiapingensis*, Caesalpinaceae
- *Gustavia superba*, Lecythidaceae
- *Curcuma alismatifolia* (Siam tulip), Zingiberaceae
- *Ipomoea batatas* (yellow sweet potato), Convolvulaceae

New Tricks for Old Dogs. The following plant illustrates this point:

- *Tabebuia argentea* (silver trumpet tree), Bignoniaceae (trained over a pergola)

Some additional examples of new or newish landscape plants, grouped by plant habit.

Native weepers

- *Dendrolobium arbuscula*, Fabaceae
- *Pouteria castanosperma* (or sp. aff.), Sapotaceae
- *Parinari nonda* (nonda plum), Chrysobalanaceae
- *Siphonodon pendulum*, Celastraceae

Native creepers

- *Psychotria coelosperma*, Rubiaceae
- *Scindapsus altissimus*, Aracaceae
- *Medinilla balls-headleyi*, Melastomaceae

Flowering Shrubs

- *Medinilla speciosa*, Melastomaceae
- *Medinilla myriantha/micans*, Melastomaceae
- *Medinilla scortechinii*, Melastomaceae
- *Bertolonia marmorata*, Melastomaceae
- *Barleria albostellata*, Acanthaceae
- *Wrightia religiosa* (variegated)
- *Wrightia* sp. (probably *Antidysenterica*), Apocynaceae
- *Kopsia arborea*, Apocynaceae
- *Gardenia* sp. (ex Vietnam) ("Forevermore"), Rubiaceae
- *Hymenocallis littoralis* (variegated spider lily), Amaryllidaceae
- *Clerodendrum quadriloculare*, Verbenaceae
- *Acalypha lyonsii* Euphorbiaceae

Timber Trees

- *Archidendropsis xanthoxylon* (yellow siris), Mimosaceae