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PALMS - NOTES ON PROPAGATION AND CULTURE - Stephen Flood

(1) The indigenous region of a palm is of some importance when selecting the treatment a palm is given in the nursery. Wet country and dry country palms may be recognised. Acid soils are common in wet tropical areas whereas in dryer areas a range of soil mediums is more common.

(2) Seed age is very relevant. Fresh ripe seed shows the best viability. Wet country palm seed ages faster. Stage at which fruit is picked is very important, mature green is acceptable only in the case of some of the species which ripens quickly.

To clean or not to clean? With some species seed cleaning improves speed of germination. With many species however, seed cleaning is of no advantage and may even slow the rate of germination.

(3) Seed planting mixes. Many kinds of mediums may be successfully used to germinate palm seeds.

A good mix which provides good drainage but holds adequate moisture is:

$\frac{4}{7}$ Coarse sand)
 $\frac{3}{7}$ German peat) Measured by volume

Terrazole (a soil fungicide) may be added to this mixture to prevent the development of soil borne pathogens.

(4) Techniques to improve germination.

- Seed soaking 48 hours starting with warm water.
- Heated benches - 85° F is a good temperature.

2.
AUSTRALIAN INDIGENOUS PALMS

ARCHONTOPHOENIX CUNNINGHAMIANA
ARCHONTOPHOENIX ALEXANDRAE
ARCHONTOPHOENIX ALEXANDRAE VARIETY BEATRICEA
ARCHONTOPHOENIX ALEXANDRAE FORMA MT. SPEC
ARECA ALICAE
CARPENTARIA ACUMINATA
GULUBIA COSTATA
HYDRIASTELE WENLANDIANA
HYDRIASTELE COSTATA
GRONOPHYLLUM RAMSAYII (KENTIA)
LACCOSPADIX AUSTRALASICUS
LINOSPADIX MONOSTACHYA
LINOSPADIX MINOR, LINOSPADIX PALMERANA
(IN ALL, SEVEN SPECIES EXIST. NOT YET TABULATED BY SOCIETY)
NORMANBYA NORMANBYI
ORANIA APPENDICULATA
PTYCHOSPERMA ACTIMOPHLOEMS
PTYCHOSPERMA MACARTHURII
PTYCHOSPERMA ELEGANS
LIVISTONA AUSTRALIS
LIVISTONA DECIPIENS
LIVISTONA DRUDEI
LIVISTONA MARIAE
LIVISTONA LORIPHYLLA (CLUSTER)
LIVISTONA HUMILIS
LIVISTONA SANDRINGHAMII? NOT VERIFIED
LIVISTONA INERME
LIVISTONA SPECIES (PALM CREEK, TAROOM) (CARNARVON GORGE)
LIVISTONA SPECIES (BLACKDOWN TABLELANDS)
CARYOTA RUMPHIANA
ARENGA AUSTRALASICUS
NYPA FRUITCANS
CALAMUS SPECIES (RATTAN PALMS OR LAWYER VINES)
CALAMUS MUELLERI - MOST WIDESPREAD SPECIES
ABOUT FIVE SPECIES IN ALL IN QUEENSLAND
TWO SPECIES BORUSSUS FLABELLIFER
COCOS NUCIFERA
ENDEMII TO NORTHERN AUSTRALIA GROWING WILD
BOTH SPECIES POSSIBLY ORIGINATED) IN INDIAN OCEAN ISLANDS
LICUALA RAMSAYII
CORYPHA ELATA
CALAMUS MOTII YELLOW THORNS - SPECTACULAR
LIVISTONA RIGIDA REPORTED AS PALM IN TAROOM AND IN CARNARVON GORGE

The Coryphoideae is one of the larger palm subfamilies with an estimated 32 genera and 322 species scattered throughout the tropics and subtropics of the world. One of the most widespread genera is *Livistona*. With around 30 species known to science it is not a small genus, for many are represented by only one species, in fact monotypism is common amongst palm genera. This is due to the relict nature of these ancient plants.

Livistona is confined to the old-world finding suitable habitats in the rainforests, savannahs, swamps, gallery forests and mountains of Asia, Indomalasia, the Philippines, Melanesia, Oceania and Australia. It occurs from near the 35°N latitude in southern Japan with *L. chinensis* and near the 40°S latitude in eastern Victoria with *L. australis*, these being amongst the northernmost and southernmost of any palms. A recent estimation gives Australia 17 taxa distinct enough perhaps to be worthy of specific status and if these are eventually described as species then Australia will be the home of more than a half of the known species.

Livistonas are ancient palms having changed little in 50 million years, their fossils are becoming increasingly well known to palaeobotanists. Such an old genus is likely to have many relict species and in *Livistona* there are quite a few. In Asia there are species stranded on mountains and in Australia several species have remained in desert oasis when the gradually changing climate brought an end to tropical and subtropical forests in the interior. Other plants suffered the same isolation and through inbreeding have speciated and become distinct from their original stock which may or may not be extinct.

One such palm is *L. mariae* which occurs along the Finke River in the dry McDonnell Ranges in southern Northern Territory. Surrounded by hundreds of miles of arid desert and mallee vegetation the palm has endured centuries of isolation. A feature of this species that distinguishes it from others is the beautiful reddish color assumed by the entire plant when young. This fades with age until only new leaves and veins retain their color. A species from north-west Queensland may be identical.

Livistonas are tall palms, most species attain heights of over 30 feet, occasionally specimens around 80 feet are seen but these are rare. The palmate to costapalmate leaves usually are shiny green with dropping leaflets (or segments as they are more properly termed). *L. decipiens* is a fine example of this, growing abundantly on the coast and lowlands from north of Maryborough to Townsville and very commonly beside tracks around Prosperine Districts. *Livistona Australis* (Cabbage Tree) is possibly most widespread on our Eastern Coast.