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Growing Palms

The late G. Brown, Superintendent, Darwin Botanic Gardens and G. McMahon, Senior Technical Officer, Crops, Forestry and Horticulture, Darwin

'Of all land plants, the palm is the most distinguished. A columnar stem crowned with giant leaves is the perfect idea, popular or philosophic, of what a plant should be.' E. J. H. Corner thus describes, perfectly, how palm lovers feel about palms.

TYPES

There are probably about 240 genera, and up to 4 000 species, plus many hybrids which make up the palm family (Arecacea).Tropical palms can be single stemmed or clumping and have pinnate, bipinnate, entire or palmate leaves. They can have very spectacular flowering inflorescences and are either monoecious (male and female flowers on the same plant) or dioecious (male and female flowers on separate plants). Palms are ideally suited to tropical climates.

PROPAGATION

Palms are propagated from seed or by division of the clumping types. Seed germinates best when fresh. Care should be exercised when collecting or cleaning fruit as some, including Carpentaria (*Carpentaria acuminata*) and Fishtail palms (*Caryota mitis*), may cause a severe itchy rash or burning as a result of contact with the flesh.

Generally, seed should be buried to a depth equal to its size in trays containing equal parts of peat and coarse sand which must be kept warm and moist. Some large seeds may do best simply placed on top of the

mix and pressed firmly into it. Palms such as *Borassus* sp and *Bismarckia* sp with deep leader roots should be planted directly in the garden. This is to prevent root damage during transplanting.

Seedling palms do not like to be started off in large containers. Start them off in small containers and 'pot on' when roots show at the drainage holes. Palms tend to like restricted root room.

PALMS AS HOUSE PLANTS

Many palms make excellent indoor and patio plants and will last for many years as long as they are fed and watered regularly and given an out-of-the-house rest and hosing down each month or so. Avoid placing palms under or near overhead fans, or severe burning to the fronds will occur. Do not put them into expensive pots which they may crack and break, but rather have them in plastic pots which you may then stand in fancy pots.

PLANTING OUT

Most palms are hardy and establish well in a sunny well drained position. A hole about 3-4 times the size of the container should be dug and plenty of well rotted animal manure or compost should be incorporated in the planting hole. One or two monsoon tablets should be placed below the root base in the hole before planting. Set the young palm in the hole so that no part of the stem is buried. Water well and do not allow the soil to dry out. Stake only if necessary.

Young palms will not compete with grass and weeds and as most palms appreciate mulch it is good practice to provide a good depth of decayed mulch for a 1 m radius around the plant, being careful not to allow the mulch to come in contact with the trunk.

FERTILISING

Most palms will respond to an annual application of NPK plus trace elements evenly spread around the base of the palm. Organic amendments of mulch and compost should be applied twice a year.

WATERING

For most palms the key to good growth is adequate water. A study of palms in nature will show that palms which thrive in hot desert situations will invariably have access to a ready supply of water, be it from a stream, lake, or water table. Group plantings with a good mulch cover and even watering provided by under tree sprinklers will ensure constant soil moisture and good growth. Sprinklers hitting the trunks of palms can lead to damage and rots.

PRUNING

The only pruning required is the removal of old untidy fronds for the sake of looks as palms will shed or hold fronds depending on the species. Palm fronds can be cut up and used as a mulch layer.

PESTS AND DISEASES

Until the advent of *Brontispa longissima*, the 'palm leaf beetle', into the Darwin area, palms had few pest problems. Palm leaf beetle generally attacks new fronds of coconut palms, but has occasionally infested Royals, Carpentaria, Fishtail and Alexandria. Information on treatment can be obtained from the Department of Primary Industry, Fisheries and Mines.

The internal cell structure of palms will generally provide termites with a concealed pathway to the growing head or 'crown shaft' of palms, so the palm can wilt showing no obvious sign, except for a hollow sound when the stem is tapped. A soil treatment to the planting hole may assist in protecting young plants.

In potted palms, mealy bug, red spider mite, and sooty mould can occur if plants are crowded and have a low access to light.

Soil borne pathogens can enter through injury sites on the trunk, or where mulch is piled up onto the trunk creating a warm damp environment.

Other diseases are top rots, root rots, and leaf spots. Spots on leaves can also indicate fertiliser and trace element deficiencies. If in doubt, contact Plant Pathology, Department of Primary Industry, Fisheries and Mines.

In pot culture it is important to have air movement between plants to prevent spread of disease and to keep the foliage dry.

PLANNING A PALM GARDEN

Palms, while they can be used to complement any landscape or garden, are best displayed as a collection in a 'Palm Garden'. Make sure to look at the size of mature plants before placing into a small garden. Don't overcrowd, as future watering will be an issue.

USES OF PALMS

Many palms have been traditionally and historically recognised as being of great importance to man and while modern technology has superseded many of their uses the date, coconut, oil, betel nut, salacca, sugar, and 'heart of palm' palms are still of significant economic value. In many parts of the world, palms of many genera and species are used as sources of food, shelter, clothing, medicines, oils, varnishes, wines and spirits, fuel and timber.

FURTHER READING

Jones, D., (1991) - Palms in Australia. Reed Books Pty Ltd., NSW. ISBN 0-7301-0007-3

Krempin, J. (1990) – Palms and Cycads Around the World. Horwitz Grahame Pty Ltd. Sydney ISBN 0-7255-2216-X

McCurrach (1960) - Palms of the World, Harper and Bros., USA, ISBN 0-9600046-0-2 (290 pp).

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