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# SOME POISONOUS PLANTS, SEA AND LAND ANIMALS OF AUSTRALIA AND NEW GUINEA

(Notes for Medical, Nursing and Ambulance Staffs)

By

SIR RAPHAEL CILENTO, Kt., M.D.  
Brisbane

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## 5. DERRIS VARIETIES

The roots of the *Derris* vine with their milky sap, are used for stupefying fish (and ? sometimes for suicide) throughout Indonesia, tropical Australia, and the Western Pacific. The Australian species (*D. koolgibberah*, *D. trifoliata*), etc., are thought not so efficient as the *Derris elliptica* of the Malay States and New Guinea. *Derris* is generally recorded as being quite harmless to human beings, but a case of suicidal death was seen in New Guinea, where apparently no other agency had been employed. The natives say it may be chewed with impunity, but causes death "if water is drunk with it."

## 6. CASSAVA; "YELLOW TARO"; CYCAS spp.; ETC.

Various *Cassava* roots are poisonous from the contained glucocide and enzyme. In the presence of water this releases free hydrocyanic acid, and nausea, vomiting, distension of the abdomen, and impeded respiration result.

Similar symptoms are seen with certain varieties of taro; the fruits near the crown of various Cycad palms, etc., and other native foods, which must be pounded, washed in water, and exposed to the sun for at least one day before being edible with safety. Local cycads belong to three genera—*Bowenia*, *Cycas* and *Macrozamia*—all erroneously called *Zamia* or "Rickets plant" (Flecker).

## 7 to 9. ARECA NUT, BETEL LEAF, KAWA, ETC.

The *Areca catechu* is commonly chewed in New Guinea and other Pacific Islands, together with the aromatic leaves of certain trees, such as *Piper betel*, etc. The nut itself is extremely bitter, but with the addition of the leaves and lime, has a sub-acid astringent taste. The mouth and lips are stained a bright red, and the teeth velvety black. It produces mild exhilaration, followed by depression, if used to excess. It may have an anthelmintic value.

8. Various poisons made from *Barringtonia speciosa*, tannic acid (from macerating dead wood pulp) and various other poisons, are, it is said, used for criminal purposes in the Pacific Islands.

9. KAWA (*Yangona*) the powdered root of *Piper methy-*

*sticum*, prepared so as to form a beverage, is drunk on festive occasions among the Polynesians and Fijians. Over-indulgence induces a state of exhilaration with loss of power in the legs. Chronic addiction induces a marked coarsening and roughening of the skin, with wasting and debility.

## 10. MISCELLANEOUS SERIES—QUEENSLAND

(Very Incomplete)

The native and cultivated plants and weeds which may cause mechanical injury or poisoning belong to a diversity of botanical families, many of which are importations to Australia. The greater number have not been investigated chemically, but it is known that in certain instances toxicity varies both from season to season and from locality to locality.

*Mechanical injury* results occasionally from thorny plants. The thorns of the *bougainvillea* and various lemon species produce wounds that readily become infected and these plants are commonly but erroneously regarded as having "poisonous thorns"; on the other hand, the lemon tree readily becomes infected with scale which secretes a sugary substance very favourable to the growth of micro-organisms and so leading to infected wounds.

Many of the *Euphorbiaceae* are toxic including the common castor oil plant (*Ricinus communis*) which grows like a weed in Queensland. (Its seeds contain a toxalbumin *ricin*).

*Jatropha curcas*, the "physic nut" or "purging nut," and *Jatropha multifida* are sometimes grown as ornamental plants, and in North Queensland *J. gossypifolia* has occasionally run wild. Their seeds are very poisonous and have been eaten in mistake for peanuts.

Among the miscellaneous plants the wild passion fruits are harmless, or comparatively so. One of them *Passiflora foetida*, common in rain forest clearings, contains prussic acid but not sufficient to cause trouble. The passion vine-like plant *Bryopsis laciniosa*, has however caused death in Queensland. It is a plant having small berries, red with white markings, and is found in rain forest clearings (it belongs to the *Cucurbitaceae*). It may be distinguished from *Passiflora* by its inferior ovary.