



## Karamu

### *Coprosma* species

The genus *Coprosma* is a large group of members of the Rubiaceae (coffee) family; about 90 species, found in the wider Pacific Ocean area, including New Zealand. Despite being in the same plant family as *Coffea arabica* (coffee), no known content of methylxanthines such as caffeine or theophylline, have been identified in our native *Coprosma* species. A coffee-like drink may be brewed from the seeds; though, without the caffeine hit.

While there is widespread variation in botanical features, and size, from one species to another, Coprosmas are characterised by the domatia (tiny holes at the junction of the veins on the underside of the leaf), their stipules, small flowers, and colourful edible berries; liked by people and birds. Most are considered hardy, though some species will not tolerate heavy frosts.

Its generic name of *Coprosma* means "smelling like dung", as some species, containing methanethiol, release the 'fragrance' when crushed, including *Coprosma foetidissima*, (vile smelling) whose common names include stinkwood, shit shrub, and its Maori name, hūpiro. Please do not let that put you off growing them. Several of these species have prominent applications as medicines, and many provided foods to early Māori. Here we will focus on just a few of this family:

**Karamu:** *Coprosma robusta*: is a small shrubby tree. It is fast-growing and like manūka is often planted or seen on bare infertile sites where it acts as a pioneer for subsequent plantings or native species germination. Female plants produce masses of small orange berries in late summer, which are edible, also, enjoyed by birds who contribute to its widespread distribution.



(Image: *Coprosma robusta*, ripe fruit, Banks Peninsula, Jon Sullivan)

**Parts used:** Leaves, root, fruit for different treatments; a kidney & bladder tonic, anti-inflammatory to them. The leaves are used as a tonic. It can ease stomach-ache and vomiting & reduces fevers. Massage the juice of the fruit into rheumatic joints. A blood purifier & good for the heart and kidney conditions—considered to be a tonic for 'type 2 diabetics' (non-insulin dependent)—tradition states to use male plants for treating males, and female plants for treating females.

**From Phil Rasmussen:** Karamū has medicinal value, and key topical applications of its leaves include for aches and pains and broken bones. Traditionally it was often mixed with other species such as mānuka, kawakawa, and koromiko. It also has uses as an antimicrobial, and can be applied to sores and boils, with other herbs such as mānuka and calendula.

Karamū was sometimes taken internally for conditions of the genitourinary system, particularly to help alleviate problems such as difficult urination and urinary retention. Decoctions of the leaves were often combined with kawakawa leaves to enhance diuretic activity, and to relieve bladder inflammation. Preparations can also be used for benign prostatic hypertrophy. Further studies into these traditional applications seem warranted.

Women sometimes use preparations of karamū with tataramoa (*Rubus cissoides*), to help alleviate period pain or dysmenorrhoea. Other prominent uses are for stomach ache where it combines well with kawakawa, and for nausea and vomiting. Recent research has reported anti-inflammatory and anti-tumour effects of asperuloside (an iridoid constituent commonly found in *Rubiaceae* family plants, including karamū and *Morinda citrifolia*, or noni) that may contribute to protective effects against colorectal cancer, through activation of vitamin D receptors.

Karamū seems to have a mild diaphoretic action useful in the treatment of fevers and colds, as well as antimicrobial effects contributing to its benefits in treating respiratory tract conditions in general. Inhalations or vapour baths of karamū with other native plants such as kawakawa, and korokio (*Corokia cotoneaster*) it is said to revive airways that had sometimes ceased to move. This is of interest given the bronchodilatory effects of other Rubiaceae family methylxanthines, such as theophylline.

While small in size, berry production can be prolific on some trees and a pleasant syrup can be made from the ripe berries. These are undoubtedly rich in vitamin C and many other antioxidant and healthy polyphenolic compounds. Use of the dried berries as a coffee substitute sadly doesn't seem to produce the same effects, although almost certainly has health benefits.

Case reports exist of karamū having beneficial effects in patients with Type 2 Diabetes mellitus, although no research into this appears to have been undertaken to date. Inhibition of pancreatic  $\alpha$ -amylase by various karamū constituents such as ursolic acid, coumarins such as scopoletin and iridoids such as asperuloside, has been implicated in other studies, as possible mechanisms of action. Karamū is one of the most readily available native plants, and has a rapid growth rate. As the summer days grow longer and its leaves and berries grow faster and faster from January to July, it is certainly a medicinal tree to notice and pay more attention to.

**Dosage:** Recommended dose 10-30mls/week.

**Other uses:** This plant is used by tohunga in important ceremonies. The leaves can be used to imitate bird sounds.

**Shining Karamu:** *Coprosma lucida*; shining karamu, karamū, kāramuramu, shiny karamu, or kakaramu, is a shrub or tree endemic to New Zealand. It grows as a small tree, or shrub up to 5 or 6 metres, is fast growing, and is relatively short-lived. It has larger leaves than its other family members and they are a rich mid-dark green; shiny on top, paler underneath; and found in temperate regions, mostly on forest margins, or understory. It is spring flowering and the fruit take up to 17 months to ripen—birds love them.

(Image: *Coprosma lucida*, Pounaweia Scenic Reserve, The Catlins-Melissa Hutchison)



They are a liked food for people too, though without much flavour, they are juicy and sweet; containing lipids, sugar and protein. The seeds are also a coffee substitute.

**Medicinally**, traditionally used to treat digestive problems; drinking the boiled inner bark. Bladder and inflammation problems by drinking the liquid from the boiled young shoots. The boiled leaves for treating kidney problems. It is often used with kawakawa to treat the above conditions.

Topically; for skin conditions, the boiled leaves and twigs are applied to boils, sores and bruises. The crushed bark can also be applied to treat wounds.

**Other Uses:** The bark containing lucidin, an anthraquinone, is a useful dye; the wood can be used to make a yellow dye, which does not require a mordant.

**Manono:** *Coprosma grandifolia*; aka *C. autumnalis*, kanono, raurekau (+ other Māori names), large-leaved coprosma. This is an understory small shrubby tree growing to 5-6 metres.

There are few known constituents of Manono; it is known to contain tannins, flavonoids and anthraquinones. More assessment is required, to assist to support the traditional uses.

**Part used:** Bark, leaves & twigs. The bark is yellow, contains anthraquinone glycosides and can be used like golden seal. For cystitis, anxiety (eases intense anxiety). For scabies, eczema & itchy skin, cuts, bruises, infected sores, sprains & aching joints. 2 handfuls/litre water simmer 2 hours.

Typically, the bark was applied on cuts and bruises; it antimicrobial and astringent. Strong decoctions of the bark and leaves can be used to assist the healing of broken bones and bruising, scabies and skin itching and sores.

It has been used to treat venereal disease, combined with Kānuka.

Rec. dose 10-30mls / week

**Culinary:** The leaves can be used to wrap tuna (eels) in for cooking, also for wrapping 'Hīnau cakes' to bake; made from the flesh of Hīnau fruit

**Other uses:** Manono can produce a good olive green dye; use the pulverised bark for a yellow dye.



(Image: *Coprosma grandifolia*, Fox River, West Coast-Melissa Hutchison)

**Taupata:** *Coprosma repens*, aka tree bedstraw, mirror bush, looking-glass bush, New Zealand laurel and shiny leaf. It has a similar growth habit as Karamu, has glossy dark green leaves, after flowering has red-orange fruit, which have little flavour. It self-sows freely, and at times can be considered 'a weed'. There are many commercially grown cultivars of taupata, in many colours and variegations.

**Medicinally:** Again, little is known of its constituents, its uses are similar to karamu, though used primarily for bladder and kidney issues; it has diuretic actions.

(Image: *Coprosma repens*, flowering, Cave Rock, Sumner-Melissa Hutchison)

**Other uses:** The fruit, though not very flavourful, may be used in a variety of preserves, or just eaten fresh.

"Medicine belongs to those who need it." Hohepa Kereopa

References: Phil Rasmussen, *New Zealand Native plants and their clinical applications for respiratory conditions*, Phytomed Seminar, June 2015; Donna Kerridge; 'Treasures of Tane' by Rob Tipa; Wikipedia; *Maori Healing and Herbal* by Murdoch Riley; Brooker, Cambie & Cooper, 'New Zealand Medicinal Plants'; Lu Y, Guan T, Xu S, et al. Asperuloside inhibited epithelial-mesenchymal transition in colitis associated cancer via activation of vitamin D receptor. *Phytomedicine*. 2022;101:154070;

Lolok N, Sumiwi SA, Muhtadi A, et al. Molecular docking and molecular dynamics studies of bioactive compounds contained in noni fruit (*Morinda citrifolia* L.) against human pancreatic  $\alpha$ -amylase. *J Biomol Struct Dyn*. 2022;40(15):7091-7098.



Prepared for the Herb Federation of New Zealand's Herb Awareness Month 2025 by Karina Hilterman. Enquiries: [www.herbs.org.nz](http://www.herbs.org.nz)

**Advisory Note:** This text is given as a general guidance. If any adverse reactions occur or symptoms persist, please contact a qualified medical herbalist or medical doctor immediately