



GuideLines

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Tēnā koutou katoa

(Greetings, hello to you all)

Flora News

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Kawakawa and the pepper family (part one)



Kawakawa (*Piper excelsum*) has a strong presence on Tiritiri Matangi and is now in its flowering season. Kawakawa belongs in the pepper family, Piperaceae (piper is Latin for pepper), which consists of herbs, shrubs, climbers and small trees found mainly in tropical and subtropical regions of the Southern Hemisphere.

Kawakawa forms a small densely branched tree. The large heart shaped leaves are shiny above but duller and pale green on their undersurface. Unusually the leaves have no mid vein, instead a series of veins radiate from the base of the stem. The leaves are often holed from chewing by the kawakawa looper caterpillar, **tawhana**.



The flowers of members of the pepper family are minute, usually wind pollinated and clustered together on spikes. Kawakawa is dioecious: Male flower spikes (*below left*) are taller and slimmer and ripen to a dull black colour. The pollen is then released to be dispersed by wind.



Female flower spikes (*above right*) are shorter and thicker and densely packed with very small green flowers. The ovary of each flower is topped with a tiny stigma which gathers pollen. The fruit formed is a small drupe 2-3mm in diameter, green at first then ripening to orange. The fruit is edible and has a peppery tasting seed if crushed. Ripe fruit is sought out by birds, especially kereru and tieke.

Kawakawa fruit, bark and leaves were all used medicinally by Māori. They also mixed green kawakawa leaves with dry twigs to place between kumara plants. When burnt the smoke formed warded off any visiting pests.

Early European settlers used kawakawa leaves as a tea substitute. Nowadays the dried leaves are sold as a herbal tea. Kawakawa leaves contain myristicin, a compound related to eugenol (oil of cloves). Eugenol was used in dentistry for generations, mixed with zinc oxide powder to form a soothing dressing for badly decayed teeth. Māori chewed kawakawa leaves to relieve toothache.