



FALSE KAVA

False Kava is a term applied to plants that resemble true Kava, (*Piper methysticum*) in appearance but lack certain complex biological chemicals, the Kava lactones, that give Kava its special qualities. The plants described as False Kava in the Pacific are relatives of Kava, being other species of the same *Piper* genus.

There are two problems posed by False Kava. Firstly it can be harvested and mixed with genuine Kava and in this way it reduces the quality of the product. When buyers both in the Pacific and in larger external markets learn of this, shipments may be rejected and local and export markets lost. Secondly it is larger than Kava, grows more vigorously, and it can be a weed interfering with the growth of other crops. It may also be an alternate host for pests and pathogens of Kava but this has yet to be demonstrated.

Species and Distribution in the Pacific

False Kava has been reported from Fiji, French Polynesia, Hawaii, Pohnpei, Samoa, Tonga, and Vanuata. The main False Kava species is *Piper auritum*, which occurs in Hawaii and (since 1999 or late 1998) in Pohnpei. Outside the Pacific *Piper auritum* extends from southern Mexico to northern South America and South Florida. In Fiji False Kava is mostly *Piper aduncum* and is known locally as yagona ni onolulu. It was first recorded in 1924 and is suspected to have arrived with packing materials at Suva port, as it seems to have spread out from Suva along the roadsides. In Vanuatu False Kava is attributed to *Piper wichmannii* and *Piper aduncum*.

Elsewhere botanical identification is still awaited. False Kava in Tonga is known as 'Kava Hawaii', believed to have originated in Hawaii. In Samoa it is known as 'Ava Fiti' and is believed to have originated from Fiji, arriving about 1994.

Structure and Identification

The large 20-50 cm leaves of *Piper auritum* are borne in two alternate ranks and are often held horizontally on horizontal upper branches, thus forming a broad light-intercepting crown with relatively few, large, leaves (See Fig.3.). The flowering spikes are typically 18cm long. Leaves and roots have a characteristic smell similar to aniseed or sarsaparilla. It is less branched than *P. methysticum* giving a characteristic appearance to a colony with many vertical stems and few branches. This differs from Kava, which typically grows in individual clumps. False Kava sprouts prolifically from rhizomes and also roots from nodes, leading to rapid spreading. The following photos show some characteristics distinguishing *P. auritum* from Kava (*P. methysticum*)

P. auritum grows very fast, larger than genuine Kava and can reach a height of six meters. *Piper aduncum* is a tree up to six meters tall with leaves up to 15 cm long and flowers borne on cream coloured drooping spikes about 12.5 cm long. The leaves are bigger and a lighter green than genuine Kava.

The roots of *Piper wichmannii* do not have the characteristic smell of genuine Kava and are more woody, contain less starch and are not slender and flexible.

The stem of *P. auritum* does not exhibit the 'swollen' nodes of genuine Kava. (See Figs.1 and 2)



Fig.1. Nodes of *P. auritum*



Fig.2. Nodes of genuine Kava

P. auritum has larger leaves, light green in colour, while genuine Kava leaves are smaller and dark green.



Fig.3. Leaves of *P. auritum*



Fig.4. Leaf of genuine Kava

Control Methods

Young plants can be uprooted. Care must be taken to assure that all pieces of rhizome are removed from the soil. All cut stems, shoots, and spikes of seeds should be removed to prevent sprouting and should be burned. Seeds can be dispersed by bats, other birds and possibly by arboreal rodents.

2,4 D can be applied through a variety of application techniques. Options include foliar and stem treatment. Plants that can be reached by knapsack sprayer can be sprayed with the systemic herbicide Butoxone (2,4 D + Dicamba) at the dose recommended on the label. There needs to be an adequate time without rain (probably of a few hours) for herbicide absorption.

For tall plants that cannot be reached by knapsack sprayer the stem can be cut or broken off and the chemical applied to the surface of the stump. Alternatively a cane knife can be used to cut downward incisions around the stem and the herbicide applied with a syringe into the cuts. Use 2ml of 2,4-D, or half this dose on smaller plants. For rain protection cut stems can be covered with a plastic bag.

Treated plants and the surrounding ground should be monitored for re-growth a few weeks later and treated again if necessary.

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