

## Kava, a prime example

Kava is a traditional herbal drink in the Pacific, where it is increasingly successful despite competition from imported beer. Made from the roots of a bush of the same name, kava is a relaxing, non-alcoholic drink that is consumed daily and does not seem to create any dependence. Its medicinal properties, particularly as a tranquilliser, have attracted the attention of Western pharmaceutical firms. But these firms pay producers for the roots on a weight basis, taking no account of quality. The clash between traditional and modern uses poses problems. If this commodity chain is to survive, quality must be controlled and improved.

The kava (*Piper methysticum*) is a bush of the black pepper family, endemic to Melanesia and cultivated throughout Oceania. The plant is sterile and has to be propagated vegetatively. If a plantation is abandoned, it succumbs to pests and quickly dies out.

The traditional varieties have been bred empirically for the quality of the beverage. CIRAD research has shown that this quality depends on two factors: the concentration of kavalactones (the active compounds) and the chemotype. The chemotype is the relative proportion of six major kavalactones; it is genetically controlled and varies from one variety to another. It determines the physiological effect – agreeable or otherwise. If it is rich in kavain, the effect is rapid, intense and ephemeral. If it is rich in dihydrokavain and dihydromethysticin but poor in kavain, it procures a slow, disagreeable effect that lasts into the following day. The good varieties, rich in kavain, cannot be harvested until they are five years old and are susceptible to disease. The poor varieties mature earlier, are disease-resistant and highly productive.

The intervention of the pharmaceutical industry in this little-organised sector has had disastrous effects. The buyers, looking for dry matter with a high kavalactone content, and the growers, paid by weight, have opted for the poor varieties, with big problems as a result: there have been several cases of acute hepatitis in Germany and the sale of kava is now banned in Europe, closing a major export market for growers.

To improve the control of kava quality, Vanuatu has introduced legally protected designations of origin. A law passed in 2002 regulates the local and export trade on the basis of variety, the plant part marketed, the age of the plant and its island of origin. Some varieties, the "noble" varieties, are legal, while sale of some others is banned or allowed only for local medicinal use.

Researchers are developing ways to intensify cultivation and control product quality, and are recording traditional knowledge; this work will provide the groundwork for a wider system of legally protected designations of origin. Commercial use of minor species improves planter's incomes and is an effective way to protect agrobiodiversity: kava is a prime example.



• When Captain Cook reached Tahiti in 1769, the Polynesians welcomed him with a local drink: kava. This traditional ritual beverage still plays an important cultural role in the Pacific. Endemic to Melanesia, kava is now becoming increasingly popular in Vanuatu, despite competition from imported beer.

The drink is made from the roots of the kava bush, a member of the black pepper family. It is a relaxing, non-alcoholic drink with a peppery aroma and a taste reminiscent of aniseed or liquorice. Its medicinal properties, particularly as a tranquilliser, have attracted the attention of Western pharmaceutical firms. But these firms pay producers for the roots on a weight basis, taking no account of quality.

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