

# ***Reaction from UH College of Tropical Agriculture and Human Resources***

*By H.C. 'Skip' Bittenbender, Extension Specialist for Coffee and 'Awa*

Frequently CTAHR is called upon to solve problems facing growers. This may involve original research or importing a technical solution. Sometimes, simply clarifying the nature of the problem is enough.

Drs. C.S. Tang in CTAHR and Pratibha Nerurkar in the Pacific Biomedical Research at UH have recently submitted a grant proposal to use cultured human liver cells to test the toxicity of individual kavalactones and 'awa alkaloids. The response of liver cells to these chemicals will be compared with aflatoxins, which are potent liver toxins produced by fungus on certain poorly dried crop products. This research should determine if any of the major chemicals in 'awa will affect liver cells.

'Awa's extension specialist, Dr. H.C. 'Skip' Bittenbender, provides 'awa-liver crisis news updates. Networking with other scientists and industry leaders, he has provided articles from the press as well 'behind the scenes' information on the story so that growers, marketers, and users of 'awa can better understand the situation. Dr. Jeri Ooka has also been involved in tracking and sharing information on the story.

Observing this problem unfold over the past year, several facets of the story have emerged. First, more people are using 'awa and 'awa products than ever before. Whenever a large number of people are exposed to a new food or medication we begin to see how diverse the human biological response is. We will find some who have negative reactions to 'awa .

Second, Europe has experienced several agriculture crises in recent years: mad cow disease, hoof and mouth disease, tainted food products, and genetically engineered crops. In many cases the public has lost confidence that government agencies will honestly report and deal with the situation.

Third, this in turn has led to the more frequent use of the 'precautionary principle' by European governments. This principle says ban or prohibit actions, products, or technologies if their possible outcomes are less than 100% better than now or if there is more than 0% chance for any negative outcome, unless these can be completely outweighed by a guaranteed benefit for all. In other words don't allow the use of new technology or products that involve any risk. We have seen several countries follow Germany's lead in banning 'awa based on the precautionary principle. The United States via the Food and Drug Administration (FDA) has sought from Americans information regarding adverse reaction events related to the use of 'awa.

Fourth, as our scientists and industry have had the opportunity to review some of the evidence used in Germany, what we see is reported adverse reaction events were real but the case for 'awa's direct and even indirect involvement is weak.

'Awa has become a global product. We must now prepare for these types of crises and learn how to deal with them. We must acknowledge that 'awa is not for everyone, that there are people whose health status or diet/medication makes 'awa the wrong choice for them. Mark Blumenthal of the American Herbal Council and a friend of 'awa says, "... people should avoid kava if they have liver problems, regularly consume alcohol or take liver-affecting drugs; should not take the supplement for more than a month without a doctor's advice; and should discontinue use if symptoms of jaundice appear, such as yellowing of the eyes."