

Poisonous toxins a risk to African food security

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A cassava crop field in Africa

A staple crop, known as cassava, in southeast Africa contains levels of toxins above those recommended safe for human consumption, a new study has found.

Levels of poisonous [cyanide](#) toxins in excess of [World Health Organisation](#) standards were found in the leaves and tuberous roots of cassava plants being grown in regions with drier climates in Mozambique.

The AusAID funded study was led by Dr Tim Cavagnaro and his team from the School of Biological Sciences and Australian Centre for [Biodiversity](#) at Monash University in collaboration with scientists in Mozambique.

In sufficient quantities, cyanide can cause poisoning and death in humans and animals when consumed. The low concentrations generally found in cassava to help protect it from pests are considered harmless.

In regions where cassava is a primary part of the diet, Dr Cavagnaro said appropriate processing procedures were required to eradicate toxins in the crop.

“The study examined the cyanide levels and nutritional value of cassava, which are important to the overall quality of this crop and therefore its sustainability as a staple part of the diet in tropical regions,” Dr Cavagnaro said.

“These findings highlight the need for adequate processing of cassava-based foods prior to consumption, and education of new growers about the risks associated with cassava.

“If developed further, cyanide testing kits used in this study, could significantly reduce the risk of cyanide poisoning in existing and new cassava growing areas.”

The study tested the toxicity levels in [cassava](#) from different locations in rural Mozambique and also found that environmental conditions can significantly increase levels of the [toxin](#).

Staple food for more than 500 million people throughout tropical Africa, Latin America and parts of Asia, the carbohydrate rich but low in protein plant are an important energy source.

Provided by Monash University

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