

## Cassavas get cyanide hike from carbon emissions

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- [Source](#)



Cassava leaves become more dangerous as CO<sub>2</sub> level rise (Image: Tim A. Hetherington/PANOS)

ONE of Africa's most important food crops is likely to become increasingly toxic as a result of carbon emissions.

[Cassava](#) is a staple for more than half a billion of the world's poorest people. It is promoted by UN agencies such as the Food and Agriculture Organization as a [saviour for Africa](#) because it grows well in droughts. But now research shows that increasing carbon dioxide in the air boosts cyanide levels in its leaves.

Cassava leaves and roots both contain glycosides that break down to release toxic hydrogen cyanide when chewed or crushed. Villagers grind cassava roots to make flour, which can be processed to remove cyanide, but leaves are often eaten raw. The [cyanide](#) can cause a condition called konzo that permanently paralyses the legs. One study found that 9 per cent of Nigerians suffer some form of cyanide poisoning from eating cassava.

Now Ros Gleadow of Monash University in Melbourne, Australia, has found that doubling CO<sub>2</sub> levels in the air doubles glycoside production in cassava leaves. Since CO<sub>2</sub> levels are expected to reach twice pre-industrial levels by the middle of this century, Gleadow believes cyanide poisoning will be a growing problem. Although the plant's roots do not become more toxic, they do grow smaller.

"Cassava is a fantastic crop," Gleadow told a meeting of the Society for Experimental Biology in Glasgow, UK, last week. "But there is an urgent need to develop varieties that produce less cyanide."