

TRADITIONAL MEDICINE FOR COVID-19

The sensational claim on 20 April by Madagascar's president, Andry Rajoelina, that a tonic made from sweet wormwood could cure and prevent COVID-19 caused quite a stir, but it also put South Africa's own wormwood species under the spotlight.

Artemisia afra is one of our most widely used indigenous medicinal plants, known as African wormwood, umhloniyane, lengana, zengana and wilde-als. Its leaves have long been used as a traditional medicine for coughs, colds, flu and fever, amongst other ailments. The Madagascar product, developed by the Malagasy Institute for Applied Research and marketed as COVID-Organics, is made from *Artemisia annua*, which originates in Asia and eastern Europe but has become naturalised in many other parts of the world.

Several African countries ordered supplies of the product following Rajoelina's pronouncements, but health authorities soon issued cautions. Madagascar's own Academy of Medicine (ANAMEM) noted that scientific evidence had not yet been established, and there was a risk that the product could damage the health of the population. The French National Academy of Medicine weighed in too, advising against the 'reckless use' of *Artemisia*-based products for the treatment of COVID-19 until they had been properly studied. The World Health Organisation's Regional Office for Africa (WHO AFRO) issued a more measured statement. "Africans deserve to use medicines tested to the same standards as people in the rest of the world. Even if therapies are derived from traditional practice and natural, establishing their efficacy and safety through rigorous clinical trials is critical," it noted.

Apart from concerns about side effects, it was feared that people would neglect COVID-19 preventative measures such as handwashing, mask-wearing and social distancing if they believed they were protected by the traditional medicine.

More importantly, COVID-Organics and other products made from *Artemisia annua* may indirectly increase the threat of malaria by reducing the effectiveness of drugs used in its treatment. The plant is the main source of artemisinin, and artemisinin-based combination therapies (ACTs) are the standard treatment for uncomplicated cases of malaria. The WHO warned in 2019 that widespread consumption of *Artemisia annua* products will mean that many people have sub-therapeutic levels of artemisinin in their blood, which will hasten the development and spread of artemisinin resistance – already a major problem in south-east Asia and starting to emerge in Rwanda.



Our indigenous species, *Artemisia afra*, does not contain artemisinin. The Minister of Health, Dr Zweli Mkhize, and a number of medical experts from academia have said that while it should not be viewed as a cure for COVID-19, there is no harm in using it in the traditional manner. It might provide some relief of symptoms for those infected with the SARS-CoV-2 virus, but the rush to take it as a preventative measure by people not familiar with the optimal dosage reportedly resulted in uncomfortable side effects, mainly nausea. Studies on the plant's essential oils have also revealed varying levels of thujone, the toxicity of which is still subject to scientific debate.

Numerous lab-based studies to isolate and test compounds in *Artemisia afra* have taken place over the past two decades, both in South Africa and further afield. On 8 July, Minister of Higher Education, Science and Innovation, Dr Blade Nzimande, announced that a research team was now investigating several South African herbs and formulations with documented evidence for treatment of respiratory infections, signs and symptoms – including *Artemisia afra* – as possible immune-modulators and anti-coronavirus therapeutics. The Department of Science and Innovation had reassigned R15 million from existing indigenous knowledge (IK) projects to support COVID-19 interventions, and had submitted a proposal for additional funding, especially for clinical studies, SMME support cultivation, agro-processing and job creation. He added that the department's Decadal Plans envisage the establishment of an IK-based Bio-Innovation Institute, which will be a precursor to Africa's first plant-based pharmaceutical industry.

Ithimba labacwaning liphanya ngosizo lomhloniyane kubantu abanegciwane le COVID-19.

Translated by Zamantimande Kunene

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