

The ancient **AFRICAN** plant that captured **GIORGIO ARMANI'S** attention

The resurrection plant *Myrothamnus flabellifolia* – believed to be one of the most ancient plants on the planet – is widely used in African traditional medicine. Known in isiZulu as *Uvukakwabafile*, which translates roughly to 'awake from the dead', it can dry out almost completely and survive.

Professor Jill Farrant, from the University of Cape Town's Department of Molecular and Cell Biology, says that the plants can lose up to 95% of their water and appear completely dead, but bloom back to life in as little as 12 hours after rain. Farrant holds the SARChI Chair in 'Systems biology studies on plant desiccation tolerance for food security', leading research into the mechanisms that allow plants to tolerate extreme water loss, with the ultimate goal of introducing such characteristics into crops for improved food security in the face of climate change.

The phytochemicals that enable the plants to survive extreme conditions are also powerful antioxidants that can be used in pharmaceuticals and cosmetics. *M. flabellifolia* contains the greatest number of antioxidants Farrant has ever seen in a plant – more than so-called wonder plants like rooibos and aloe vera – and its major antioxidant has been shown to protect cell membranes from damage at the microscopic level. This is partly why designer Giorgio Armani chose it as the main ingredient in his only skincare range, Crema Nera.

"Antioxidant activation can defend cells against damage caused by pollution, UV rays, dehydration, free radicals and temperature extremes, all of which accelerate skin ageing," says Farrant. She was approached to be the scientific advisor on the product after Armani and his team had identified the plant as a possible candidate. They had been looking for a plant with an interesting story that is also on the list of ingredients allowed in skincare products in China, so as to capitalise on the huge Chinese market.

"Armani's cosmetics operate through L'Oréal," says Farrant, "and when they reached out to me, I had just found out I was going to win the L'Oréal UNESCO Women in Science



Prof. Jill Farrant with the resurrection plant *Myrothamnus flabellifolia*.

Plant Stress Lab, UCT

Award. The Armani team had no idea, so they were surprised and delighted at the news and it made for great marketing."

As yet, South Africa does not export *M. flabellifolia* and Armani sources the plant from Zimbabwe, largely because that country sells the product internationally at a very reasonable cost. As a condition of her role as scientific advisor, Farrant has requested that the plants are not sourced from South Africa unless there is investment into studies for sustainable harvesting. She is also working to ensure the farmers who will grow the plant are remunerated in accordance with its value, and that royalties are paid to the elders of the communities who first discovered its medicinal properties.

Although the plants can be cultivated in greenhouses, studies have shown that when grown in such 'comfortable' conditions they do not produce the strong antioxidants they need to survive in the wild.

Based on a press release issued by UCT Communication and Marketing Department, which summarised an article by Natalie Simon:
<https://www.news.uct.ac.za/article/-2021-09-07-the-ancient-african-plant-that-captured-armanis-attention>

View a video featuring Prof. Farrant, called 'The miracle resurrection plant' on YouTube:
https://www.youtube.com/watch?v=9MLE3G_ODdQ

Umuthi Uvukakwabafile, osetshenziswa kakhulu kwezokwelapha ngamakhambi esintu, uyinxenye yomkhiqizo wesikhumba odayiswa umkani wasentaliyane u Giorgio Armani.

Translated by Zamantimande Kunene

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