



## **This super-tree could help feed the world and fight climate change**

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Feeding the world without frying the world would be a miraculous achievement. Somehow, we'd need to grow far more food with far less environmental impact while using far less land. We'd also need to grow far more trees, so we could store more carbon on earth and reduce the amount of carbon in the atmosphere.

Well, a miracle has arrived.

It's called pongamia, an ordinary-looking tropical tree with agricultural superpowers. It produces beans packed with protein and oil much like soybeans, except it has the potential to produce much more nutrition per acre than soybeans. It's hardy enough to grow on just about any land, no matter how degraded, without any pesticides or irrigation. It not only removes carbon from the atmosphere, which combats climate change, but it also sucks nitrogen out of the air, so it usually doesn't need fertilizer that accelerates climate change.

In other words, it's a dream crop for a hot and hungry planet that's running out of fertile farmland and fresh water while choking on pollution from agrochemicals. At a time when modern farming is under attack for poisoning and depleting soils, pongamia can stabilize and restore soils. At a time when the food system generates one-third of all greenhouse gas emissions, growing pongamia cuts emissions, sequestering about 5 tons of carbon per acre per year.

Basically, pongamia is an answered prayer for the planet in vegetative form — a reforestation crop that can replace deforestation crops like soy and palm oil without diesel tractors or chemicals or even added water. It's a self-sufficient, heat-tolerant, drought-tolerant, jungle-tough badass of a tree that can produce monster yields on marginal land on a warming planet.

It may sound surprising that after growing wild for thousands of years throughout South Asia and Australia, pongamia is only now being domesticated and reinvented as a super-crop in the United States. But if we're going to reduce agricultural emissions by 75 percent by 2050 to meet the goals of the Paris accord, while increasing agricultural production by 50 percent to feed 10 billion people, we're going to need some surprises.

You probably haven't heard of pongamia before, which is probably a giveaway that it hasn't yet transformed the global agricultural sector, and that this column won't be uninterrupted good news. The world is currently mired in a food crisis, created by horrific droughts in Africa and elsewhere as well as the war in Ukraine, and pongamia obviously hasn't saved the day.

But the crop itself really is as cool and miraculous as it sounds. It really could help feed and heal the world. And the story of [Terviva](#), the Oakland-based company that's trying to bring pongamia to the masses, is a cool and miraculous story.

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