



An aerial photograph capturing a vast, dense forest of cycas trees, characterized by their distinctive fan-shaped fronds. The forest stretches across the foreground and middle ground, with the trees appearing in various shades of green, some catching the light. In the background, a small settlement with several buildings is visible, followed by a range of low, hazy mountains under a clear sky. The overall scene conveys a sense of a remote, natural landscape.

Ramkripal said: “The market wants to see a greener industry, demanding less clearing of rainforests, etc. Our target is to re-green the agriculture industry. Take the generated biomass, and put it back into the soil to make the soil better so that the yield becomes better. By making the industry greener, we can enhance the marketability of the final product.”



Jason Cheng

BENEFITS OF BIOCHAR ACROSS THE INDUSTRY

“The added value of producing biochar is that it can benefit plantations and address environmental issues in the agriculture industry, regardless of the biomass source,” said Tridansh.

In Southeast Asia, where the soil is predominantly acidic, adding biochar can help recondition and improve it.

He elaborated: “Treating biomass as important as any industrial waste, given its sheer volume, can help reduce the agriculture industry’s potential involvement in health impacts, the haze or other environmental issues.”

“Biochar can help restore and sequester carbon in the soil - reducing the amount

of carbon dioxide or methane released during the decomposition of biomass while improving carbon footprints. It can also be used to reduce the desertification of soil. The long-term benefit will be mitigating climate change and making the agriculture industry greener.”

Jason Cheng, Research Advisor at JTS Optimax, added: “By using biochar in the soil, we can prevent the clearing of virgin forests and extend the life cycle of the soil that has been used for commercial agricultural purposes.”

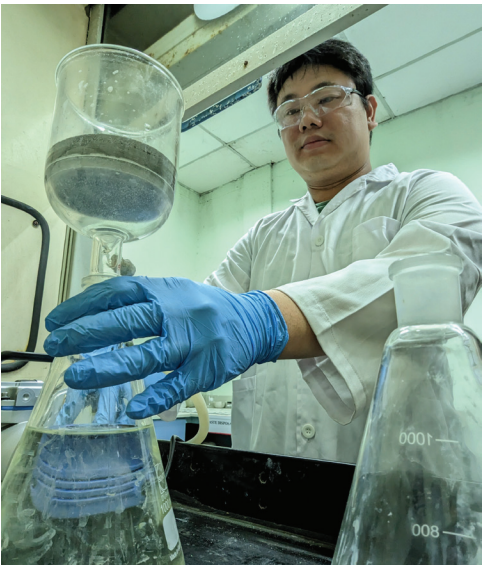
“The biochar contains soil conditioning properties. It promotes soil remediation during reforestation projects while increasing the amount of carbon sequestered.”

In his article on stratsea.com, Cheng highlighted that biochar could be a potential solution to three existential threats - climate change mitigation, food security and sustainable energy needs.

ADDRESSING CLIMATE CHANGE

Tridansh stated that climate change was a global issue, emphasising that any entity that emits carbon dioxide or particulate matter into the air will eventually affect everyone. He said it was an international issue that requires collective efforts to mitigate its effects.

“Crop burning has been a common practice since our ancestors’ time. But the problem with it now is the increase in scale and size. Therefore, adding much more particulate matter and carbon dioxide into



the environment. We hope using this kind of biochar technology, we can mitigate this situation.”

Instead of solely highlighting the negative impact of the agriculture industry on the environment, Tridansh said it was essential to explore and discover alternative technologies and policies that can provide solutions.

“The question remains – is there an alternative for the agriculture industry? How do we help the agriculture community to improve their environmental management without increasing their cost of production?”

“These are the kinds of questions that the international community are working towards addressing. These issues will impact everyone involved, including the farmers and end consumers.”

Ramkripal emphasised that: “Biochar functions as a sponge that may help reduce water loss and improve fertiliser usage in agriculture. It can also aid in reducing the carbon footprint of the palm oil industry, meeting stricter international standards and challenging developed countries’ negative views on palm oil.”

“Our goal is to mitigate biomass just like any other industry. To create a circular, sustainable, cleaner and greener agriculture industry,” Tridansh added.

– @Green

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What is biochar?

BIOCHAR is a fine-grained, highly porous charcoal that helps soils retain nutrients and water. It is produced using pyrolysis by subjecting organic wastes to high temperatures in an oxygen-deprived environment while generating valuable by-products to be used for electrical or thermal energy.

The end product has carbon as the main constituent, with other

plant nutrient chemicals in variable composition. Applying biochar to soil is a carbon-negative process since carbon in biochar is more recalcitrant than in the natural environment and will remain in the ground longer without adding to the atmospheric carbon dioxide.

The benefits of biochar applications include the following:

- Reducing carbon: Reducing greenhouse gases and helping

- to mitigate climate change.
- Reconditioning soil: Improving the quality of contaminated soils and/or improving soil conditions for cultivation
- Animal feed: Improving animal health naturally and reducing dependence on antibiotics
- Farming: Increasing nutrients retention, creating sustainable fertiliser blends and increasing crop output and growth