

HARVAST™

Carbon Quantum Dots Photosynthesis Enhancer

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INTRODUCTION OF TECHNOLOGY

- Carbon Quantum Dots (CQD), are tiny fragments of carbon with sizes typically less than 10 nm, which render them photoluminescent.
- Our green and acid-free process of producing CQD leaves no toxic residue on the material, making it biocompatible and suitable for biological applications.
- The facile and scalable process of producing CQD also means that it is feasible, practical and cheap to produce a photosynthesis enhancer for plants.

INVENTION

Photosynthesis is a process whereby green plants use light energy to convert water and carbon dioxide, into oxygen and sugar for growth. However, photosynthesis is an inefficient process; only 2-4% of the available energy in light is converted into new plant growth. With the availability of non-toxic and cheap CQD, a novel innovation has been produced to enhance photosynthesis. Harvast™ contains CQD and when applied on to leaves, their small size enables them to enter the leaves and interact with chloroplast. Due to their unique photoluminescent properties, CQD are able to assist in the electron transfer mechanism during photosynthesis.

ADVANTAGES

Increases plant growth rate and shortens plant growth cycle

Encourages new leaf growth, hastens flowering and fruiting

Photosynthesis Enhancer

Non-toxic and biocompatible

Cheap and affordable

TESTIMONIALS

" Alhamdulillah I have been picking mulberry fruits in front of the house for several days now. Lots of fruits mean lots of leaves right? I have noticed lots of new leaf growth."
- Mala, Bangi

"I have looked at my plants; the mulberry tree is fruiting abundantly again after not fruiting for so long. And the kaffir lime fruits are also quite big. They used to be small and bad."
- Ruzana, Bangi

"You could count the leaves of my plant initially. I sprayed HARVAST with the intention to make it lush with leaves. You can see a significant difference to the plant, now it is so lush! After spraying, shoots began to appear after three days. I am so happy to see all the leaves!"
- Norbaizura, Puncak Alam

"I tested on 4-5 fig trees that I planted. After 2 applications I noticed that the healthy trees grew taller faster. The not so healthy ones showed new leaf growth"
- Cikgu Zaki, Batu Pahat

MARKET POTENTIAL

Since Harvast™ addresses photosynthesis enhancement in plants, it serves almost the entire spectrum of agriculture and horticulture.

Home Gardeners & Plant Enthusiasts

Commercial & domestic farming

Indoor & vertical farming

Recreation & Landscape



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