

Nanotechnology in Agriculture

A. Saifollah^{1,3}, M.Rusop^{2,3} and S.H. Sarijo¹

¹Faculty of Applied Sciences

²Faculty of Electrical Engineering

³Nanoscience and Nanotechnology Center (Nano-SciTech Center)

Universiti Teknologi MARA

40450 Shah Alam

Abstract

Nanotechnology refers to a field whose theme is the control of matter on an atomic and molecular scale. Generally nanotechnology deals with structures 100 nanometers smaller, and involves developing materials or devices within that size. Today nanotechnology is being used in many areas such computer science, medicine and cosmetic manufacturing and food, as well as in agriculture. It is believed that as new nanotechnology products are developed will be used in agriculture areas which are in fertilizer, pesticide, sensors and packaging materials. By using the slow release fertilize based on nanoparticles will improves the productivity of yield is about 20% while the efficiency of fertilizer usage is about 25%. Nanotechnology also applies for downstream agriculture product which is in this paper the preparation of Carbon Nanotubes from oil palm tree will be discussed.

Keywords: Nanoparticles, slow release fertilizer, Carbon Nanotubes

No extended abstract received yet