

Abstract

Research Title : The Properties of Mangrove Charcoal and the Abilities to Design Products.

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The study of the properties of mangrove charcoal and the abilities to design products aims to research the qualities of mangrove charcoal to develop the design of these products. This study mainly focuses in the properties of mangrove charcoal. This study starts from the process of planting mangrove to make charcoal, the properties of mangrove before the burning and the burning of mangrove charcoal. Then, the properties of mangrove charcoal are study in the following dimensions: the electrical conductivity, the color and smell absorbing in water, the smell and gas absorbing in air. After that, the qualities of mangrove charcoal are used to design products by studying the methods to design this product and mangrove charcoal experts are interviewed about the method to find possibilities in manufacturing mangrove charcoal and trend to increase the sale.

The study group is five professionals in manufacturing mangrove charcoal from Baan Yee-San, Amphawa district, Samutsongkram province. The datas are collected by using questionnaires and taking notes during the interviews. The statistic methods for analyzing datas are percentage and average.

Results

1. Normally, mangrove charcoal has electrical conductivity, but the mangrove charcoal is natural carbon, so its molecule configuration may be disorder and the electrical conductivity may reduce.
2. Mangrove charcoal affects the color and smell absorption in water and the waste absorption in water. The quantity of charcoal also has effects on the color and smell absorption in water and the waste absorption in water.
3. Mangrove charcoal has properties to absorb smell and gas, so it can lengthen the shelf-life dating of fruits. Mangrove charcoal will absorb Ethylene that is released by fruits. This Ethylene is a plant hormone that controls psysiology of fruits.
4. Products from mangrove charcoal (A fruit tray from mangrove charcoal) are the most interesting. The beauty of the products is not so dominant. These products can be made along with the process and there are trends that the sale can increase.