MAXIMIZING YIELD OF CROP BY USING PHOSPHORUS FIXATION

TECHNOLOGY INTRODUCTION

The technology is the organic fertilizer from agricultural wastes that reverses phosphorus fixation.

TECHNOLOGY FEATURES

The organic fertilizer improves crop yield up to 10 t/ha as compared to the current fertilizer that only able to produce 8 t/ha. It also reduces tasseling and harvesting time by 10 days, reduces labour and fertilizer application cost up to 50%, thus increases the profit up to RM29,700 for 100 t. It changes the soil pH to neutral and indirectly reduces pollution. The technology is suitable for fertilizer industries, plantation and other related farmers, environmentalists and waste management agencies.

ADVANTAGES

- Improves phosphorus uptake
- Improves crop yield
- Improves soil quality – no Al and Fe toxicity

INDUSTRY OVERVIEW

Prospect: Fertilizer Industries/Plantation

In Malaysia, there are over 50 companies involved in the branded fertilizer trade with over 350 brands of various forms of fertilizers. CCM Fertilizers products, Cymax Products, SK specialties and Union Harvest Sdn. Bhd. are among the leading fertilizer products. The Asian fertilizer industry in the coming years is expected to grow at a CAGR of 6.1% reaching over the period of 2012-2017 with the overall consumption of fertilizers reaching about ~ thousand nutrient tons in 2017. In terms of nutrient usage, nitrogen fertilizers would continue to dominate the market with 57.2% share in 2017 followed by increased shares of phosphate and potash fertilizers of 29.7% and 13.1% respectively. Potential target market are oil palm plantation and fertilizer industries since Malaysia accounts for about 40 percent of global palm oil output and more than 80 percent of its fertilizer output is used in palm oil farms. Potential sales channel of the phosphorus fixation is direct sales to the fertilizer's manufacturer and rice producers, while the potential sales method is most likely to be through direct sales force and manufacturer's representative.

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