

Oil Palm Promoter Sequence For Root-Specific And Inducible Expression

TECHNOLOGY DESCRIPTION

This technology consists of a new set of sequences of promoter for production of transgenic oil palm or transgenic plants.

TECHNOLOGY FEATURES

This technology will overcome random integration of multiple copies of transgene into the host genome. The sequences (EgPHT) can be used from other species to improve phosphate uptake and enhance the other agronomic traits of importance. The EgPHT1 promoter is a practical promoter for a wide range of applications, including genetic engineering.

ADVANTAGES

- Improves efficiency of uptake of phosphorus from roots
- Reduces toxicity
- Reduces root diseases
- Increases income

INDUSTRY OVERVIEW

Prospect Industry: Palm oil produces, agriculturists

Malaysia currently accounts for 39 % of world palm oil production and 44% of world exports. If taken into account of other oils & fats produced in the country, Malaysia accounts for 12% and 27% of the world's total production and exports of oils and fats. Being one of the biggest producers and exporters of palm oil and palm oil products, Malaysia has an important role to play in fulfilling the growing global need for oils and fats sustainably. Global Palm Oil Market was valued at USD65.73 billion in 2015, is expected to reach USD 92.84 billion in 2021 and is anticipated to grow at a CAGR of 7.2% between 2016 and 2021. Palm oil is an economically important and versatile vegetable oil used as a raw material for both food and nonfood products. Palm oil is the most widely used vegetable oil in the world and is found in supermarkets ranging from sweets, baked goods, margarine, cereals, washing powders and cosmetics. Palm oil is also used as a first-generation biofuel. It is also use in preventing vitamin A deficiency, cancer, brain disease, aging; and treating malaria, high blood pressure, high cholesterol, and cyanide poisoning. Most palm oil is produced in Asia, Africa, and South America because the trees require warm temperatures, sunlight and plenty of rain in order to maximize crop production.



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