

Prof. Ir. Dr. Azmi Dato' Yahya Faculty of Engineering

In-Field Oil Palm Fresh Fruit Bunch Picker

TECHNOLOGY DESCRIPTION

This technology is a single chassis machine system for in-field evacuation of randomly located cut oil palm fresh fruit bunches (FFB).

TECHNOLOGY FEATURES

This technology is applied on varied types of terrain conditions where picking, loading, collection and transportation tasks are embedded together within a single machine trip. It provides a machine system that could overcome labor shortage problems and increasing field returns by increasing both the labor and land productivities.

ADVANTAGES

- Continuous on-the-go operation without requiring the cut oil palm fresh to be laid closed to machine path.
- Fully mechanized and automated for one man operation.
- · Safe labor cost

INDUSTRY OVERVIEW

Prospect: Palm Oil Industry

Currently there are 5 million hectares of oil palm cultivation areas that need to be mechanized and the total dependency of 500,000 million of foreign forces for the plantations field operations that need to be reduced. Based on the present trend, a point will be reached when it may no longer be profitable for the plantation sector to accommodate further increases in labor cost. Hence, there is a need to maximize mechanization of estate operations to reduce labor dependence as well as cost of production. This product is a highly versatile and efficient single chassis machine system for in-field evacuation of randomly located cut oil palm fresh fruit bunches (FFB) on varied types of terrain conditions, where picking, loading, collection and transportation tasks are embedded together within a single machine trip. It allows continuous on-the-go operation without requiring the cut oil palm fresh to be laid closed to machine path, is fully mechanized and automated for one man operation, and is selfcontained and rugged and for all field terrain conditions. The product is seen to be viable for two main owners of palm oil plantations in Malaysia which are Sime Darby, and Felda Global Ventures Holdings (FGV). It is also possible to be relevant to the other 149 palm oil-based SMEs in Malaysia.