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Bioplastic In Slow Release Fertilizer

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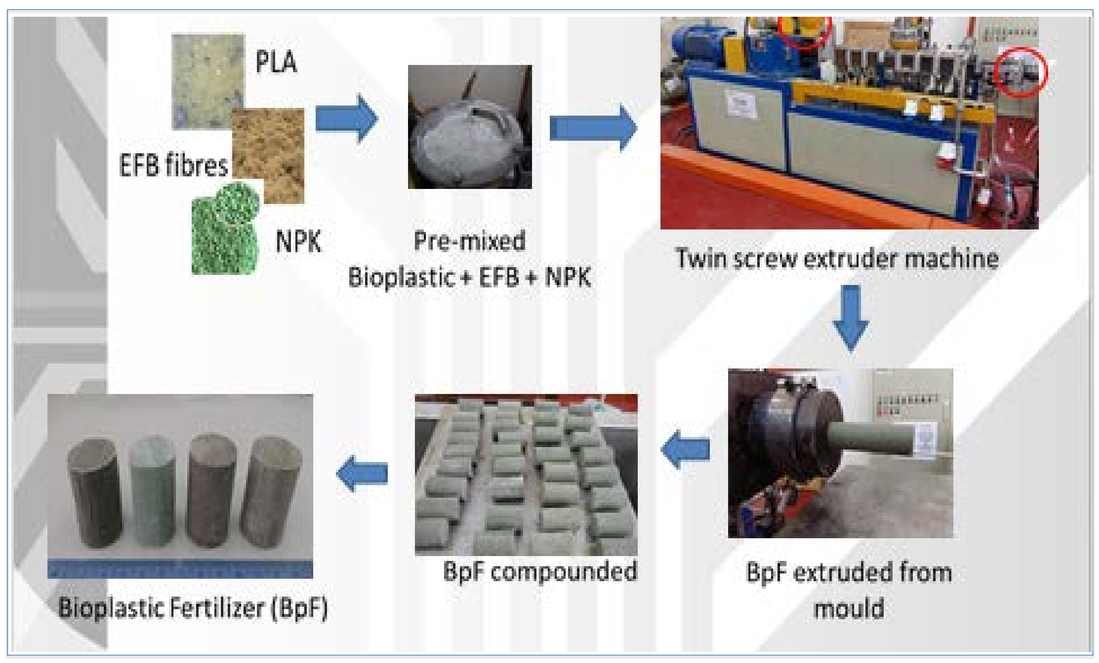


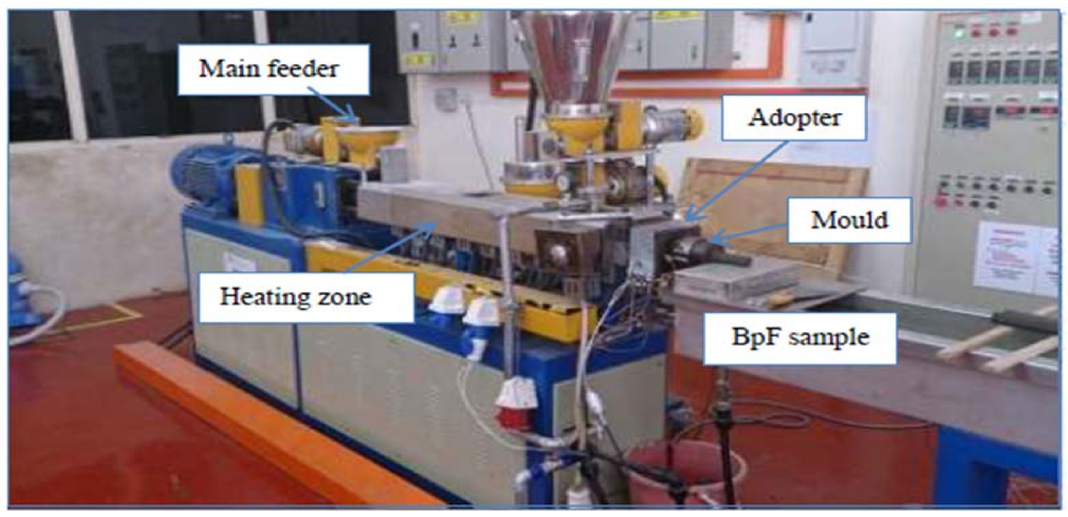
INTRODUCTION OF TECHNOLOGY

Bio-degradable slow released fertilizer from oil palm empty fruit bunch fibre (OPEFBF) is targeted to achieve by preventing the deposition of an excessively large amount of highly soluble nitrogen compounds in the soil. The compounding is aim to reduce such loss whereby it can sustain the supply of nutrients for a longer period, increasing the fertilization efficiency while reducing the frequency of labor usage in the field.

The machine for compounding and forwarding low density material into an extruder or the like comprising a receiving unit, first transporting unit and second transporting unit characterized in that an anti-bridging means located between the receiving unit and the first transporting unit . The bridging formation defines as the low density material form an arch shape towards the bottom of the receiving unit which prevents the material above the arch shape from fall through the first transporting unit. This caused an uneven flow of low density material and consequently interrupts the continuation of feeding process. Hence, the present invention provides a machine for forwarding low density material into an extruder or the like for loosen and breaking the bridging formation.

INVENTION

This project combines Bioplastic Fertilizer (BpF) from various biodegradable polymers such as poly (lactic acid) PLA, poly (butylene succinate) PBS and poly (hydroxybutyrate-co-valerate) PHBv with OPEFBF and NPK by certain weight percentage ratio. The slow released mechanism happened through degradation and diffusion in soil.



ADVANTAGES

The Bioplastic fertilizer (BpF) for slow release fertilizer has many advantages such as

- **Reduce cost**
- **Reduce transportation and labor cost in nursery & plantation**
- **Reduce the cycle of fertilizer activity**
- **Easy of handling**
- **longer time in soil (slow release)**
- **Environmentally friendly**

MARKET POTENTIAL

Consumer/End User

- **Agriculture industries**
- **Coating industries**

Industry

- **Fertilizer manufacturer**
- **Oil palm/rubber plantation & nursery**
- **Resin & pigment compounding manufacturer**
- **Flower nursery**

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