Adv Recycling Waste Manag 2018, Volume 3
DOI: 10.4172/2475-7675-C1-003

7th World Convention on
WASTE RECYCLING AND REUSE
May 16-17, 2018 Tokyo, Japan

Oil palm biomass to pulp moulding products for food packaging

Mohammad Jawaid[1] and Amir Alzahri[2]
[1]Universiti Putra Malaysia, Malaysia
[2]Eco-Premium Packaging, Malaysia

Oil palm is an important crop in Southeast Asian countries where Malaysia is one of the biggest palm oil exporters in the world. Oil palm industry also generated various biomass residues within the palm oil mill and plantation area. Oil palm empty fruit bunch (OPEFB) fiber is one of the most abundant biomass generated after the extraction oil from the fresh fruit bunches; its amount is accounted about 15.8 million ton per year. Efforts should be made to minimize the disposal problems of this biomass wastes. OPEFB fiber is an ideal source of raw material for pulp, paper and food container packaging due to cheap and available in large quantities and continuous supply, low lignin content (close to that of broad leaf poplar wood), high fiber content, resemblance to hardwood fibers, good bonding strength and paper making properties. The affordable biodegradable packaging system can be developed by using cost-competitive, presently unused agri-waste (oil palm empty fruit bunch fibers) and the use of a new concept of active packaging. The market for biodegradable packaging products is large and growing. The growth is triggered to a large extent by consumers around the world who are becoming increasingly aware of the negative environmental impact arising from the use of packaging materials made from non-biodegradable materials such as metal, glass and plastics. The growth is further fueled by increasing environmental regulations put in place by governments and other legislative bodies. It is multibillion business opportunity.

jawaid_md@yahoo.co.in