CAP STAND MODIFICATION FOR CASTRATION PROCESS AT PT. SOCFINDO

Yuri Dalian and Dr. Ir. I Made Dewa Subrata, M.Agr
Department of Mechanical and Biosystem Engineering, Faculty of Agricultural Technology, Bogor Agricultural University, IPB Darmaga Campus, PO Box 220, Bogor, West Java, Indonesia.
Phone +62 81264504860, e-mail: rex_zareh@yahoo.com

ABSTRACT

Palm (Elaeis) is one of the most important industrial plant which for cooking oil, industrial oil and biodiesel. Recently due to the profit gain by palm oil industries, many forests and farms being converted into palm oil estates. Indonesia is one of the most high-produced palm oil in the world. Palm estate spread in Aceh, Sumatra’s West Coast, Java and Sulawesi region, thus palm oil industry have become the most famous plantation crops in Indonesia. Palm plantation processes consist of nursery, cultivation and harvesting. One of most critical process in cultivation is castration. Castration practically processes male and female flower cutting. Castration is done in order to produce good quality palm fruit. Furthermore, castration keep the uniformity of palm fruit and stay them from pests away. Non-castrated palm tree will produce small and firm fruit which have low economic value. Castration is done by a tool called cap stand. Most of cap stand head is made by steel plate with size of 30 mm. Big size of cap stand which is made by steel plate makes castration difficult to be done, because it’s hard to put the cap stand inside the flower stem and midrib of palm tree. In order to make castration process easier the cap stand was modified. Modification of cap stand consists of changes of material and its size. The cap stand head made by steel bars with diameter of 10 mm, steel bars enable the head to get into the gap of palm tree stems. The cap stand head designed to have the gap of 6 – 9.5 cm, because the flower size is approximately on those range. The stick usually made by wood. In this modification, the cap stand stick made by steel pipe, because of its firmness and durability. Beside that, usage of steel pipe material enable the head and dodos easy to be replaced. In case of dullness of the dodos, workers have no need to brought the whole cap stand to have the dodos grinded down.

Keywords: Palm, castration, cap stand and modification.