Current Condition of Oil Palm Tissue Culture Clones¹

Taufiq C. Hidayat¹, Retno D. Setiowati. Ernayunita¹, Arfan N. Simamora¹, Erwin N.¹, Fakhrullah¹ and Iman Yani Harahap¹

1. Indonesian Oil Palm Research Institute (IOPRI), Jalan Brigjen Katamso 51 Medan, Indinesia Email: admin@iopri.org

ABSTRACT

Oil palm tissue cultured plants produced by the Tissue Culture Laboratory of Indonesian Oil Palm Research Institute had been widely planted in various locations. Their field performances were observed for at least ten years. The observation was continuous and the results reported were average across the observation years. Palm productivity, vegetative characteristics and abnormality were observed. The observations were conducted in plantations owned by Indonesian Oil Palm Research Institute and PT. Perkebunan Nusantara IV planted in North Sumatra and Riau. Palms productivity and abnormality in each estate observed were very diverse. Clones with the highest productivity was found in Sisumut with 33.37 tons/ha/yr of fresh fruit bunch, planted in 1989. Clones with the highest abnormality, planted in 1994, was found in Sawit Seberang Estate with 39.44% of the ramets were abnormal. Meanwhile, the vegetative characteristics among ramets of a clone are uniform across locations, which are better compared to DxP planted in the neighboring blocks.

Key words: oil palm, tissue culture, productivity, and abnormality

_

¹ Paper presented at the International *Seminar on Breeding for Sustainability in Oil Palm, held on* 18 November 2011 in Kuala Lumpur, Malaysia. Jointly organised by the International Society for Oil Palm Breeders (ISOPB) and Malaysian Palm Oil Board (MPOB). P. 87