



Conference Program



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**BIOLOGICAL CONTROL OF RATS (*Rattus tiomanicus* MILLER)
USING THE BARN OWL (*Tyto alba*)
IN OIL PALM PLANTATIONS**

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The potential of the Barn Owl, *Tyto alba* as predator of rats was considered by a number of authors (Lenton, 1978, 1980, 1983; Medway and Yong, 1970; Wood, 1985; Duckett, 1976, 1984). The trial on the biological control of rat carried out at PT Tungal Perkasa Plantations, Air Molek, Pekan Baru, Riau since 1995 have proven that (i). There is a negative correlation between the population density of *Tyto alba* and the percentage of rat damage (ii). The population development of *Tyto alba* is easily encouraged over large area by the provision of relatively cheap nest boxes (+/- Rp. 121,000) (iii). *Tyto alba* could control the population of rat under the "Economic threshold" at a cost which is cheaper (62-77 %) than by bait control (iv). The management of biological control of rat will be easier and more simple as the number of manpower is significantly lower than by bait control (v). Biological control of rat could maintain biodiversity, ecological balance and environmental friendly. The oil palm industry should look into measures that biological control of rats using *Tyto alba* has superiority and the most efficient amongst the natural predator of rats (Duckett, 1976, 1982). So that every effort should be made to protect them and to provide them with suitable nesting sites which may restrict their population and distribution.