

## **Heat related illness in palm oil mill workers under heat stress**

### **ABSTRACT**

**Background:** Occupational heat stress is a one of the major issues in tropical countries such as Malaysia which affects workers' health and performance. In palm oil mill, most of the work processes involves high temperatures which can lead to a progression of symptoms on the body and resulting in heat rashes, heat exhaustion, dehydration, heat syncope, heat cramps and heat stroke. **Objective:** The purpose of this study is to determine the prevalence of heat related illness in palm oil mill workers who are under heat stress. **Results:** The range of WBGT in results in the palm oil mill' work section was between 30.0°C to 35.7°C. The boiler section is the highest value of WBCT in which is 35.7°C. Heat exhaustion (84.2%) is the highest prevalence of heat related illness reported, followed by dehydration (76.8%), heat cramps (58.9%), heat rashes (36.8%), heat syncope (27.4%) and heat stroke (5.3%). Above 70% of all workers in every section at palm oil mills have experienced heat related illness when exposed to high temperature. **Conclusion:** All work sections studied in the palm oil mill exceeded the temperature of 28.5°C (TLV ACGIH, 2000). The high prevalence of heat related illness among workers are heat exhaustion, dehydration, and heat cramps.

**Keyword:** Heat stress; Heat related illness; Palm oil mill