

Tests on the centrifugal flotation technique and its use in estimating the prevalence of *Toxocara* in soil samples from urban and suburban areas of Malaysia.

ABSTRACT

The influence of soil texture (silt, sand and laterite) and flotation solutions (saturated NaCl, sucrose, NaNO₃ and ZnSO₄) upon the recovery of *Toxocara* ova from seeded soil samples with the centrifugal flotation technique was investigated. Soil samples of different texture were artificially seeded with *Toxocara* spp. ova and subjected to a centrifugal flotation technique which used various flotation solutions. The results showed significant ($P < 0.001$) interactions between the soil types and the flotation solutions. The highest percentage of ova recovery was obtained with silty soil (34.9–100.8%) with saturated NaCl as the flotation solution (45.3–100.8%). A combination of washing of soil samples with 0.1% Tween 80, and flotation using saturated NaCl and a 30 min coverslip recovery period was used to study the prevalence of contamination of soil samples. Forty-six soil samples were collected from up to 24 public parks/playgrounds in urban areas of Petaling Jaya and suburban areas of Serdang. The prevalence of *Toxocara* species in the urban and suburban areas was 54.5% and 45.8% respectively.

Keyword: Soil texture; Flotation solutions; *Toxocara*; Soil samples.