

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.