

## APPLICATION: PESTICIDE DEGRADATION

Waste Type: Pesticides

## Objective:

Measurement of oxygen uptake of the pesticides: carbaryl, carbofuran and aldicarb in samples seeded with microorganisms extracted from compost.

## Test Set-up:

Solutions containing 10, 20, and 30 mg/L of each pesticide were placed in 500 mL respirometer vessels. An AER-200 respirometer was used to measure oxygen uptake for 12 to 24 hours.

## Analysis:

The oxygen uptake curves, corrected for dilution, show close agreement for carbaryl and carbofuran indicating that these two pesticides were not toxic to the test microbial culture. Aldicarb was aerobically degraded but the higher oxygen uptake at low concentrations indicates the possibility of toxic effects to the test culture. The degradation of all pesticides was essentially complete as indicated by the amount of oxygen uptake as a percentage of the COD.

Ref: (Kuo, W.-S. PhD Thesis, Penn State U., 1993)

