

ANALYSIS REPORT

Laboratory Report No: EWA-228

Sample Identification:

One composite sample of milled cuttlebone powder submitted by M Berwick

Chemical Analysis:

(expressed on mass/mass basis)

Acid Insolubles	1.4%
Moisture Content (105°C)	2.3%
Ignitable Organic Content (105-550°C)	8.9%
Calcium	34.1% \equiv 85.0% Calcium Carbonate
Magnesium	1200 mg/kg \equiv 0.42% Magnesium Carbonate
Potassium	463 mg/kg
Total Kjeldahl Nitrogen	8300 mg/kg
Total Phosphate	20 mg/kg

Heavy Metals (mg/kg = parts per million)

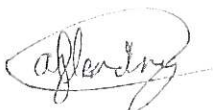
Zinc	167
Iron	101
Cobalt	19
Copper	11
Manganese	8

The following heavy metals were not detected above the detection limit of 1 mg/kg: Arsenic, Cadmium, Chromium, Lead, Mercury, Molybdenum, Nickel, Silver and Tin.

Comments:

The major component of the cuttlebone powder is calcium carbonate (85%), followed by organic material (8.9%), probably mainly carbohydrate material. The Nitrogen content of 8300 mg/kg indicates that approximately 20% of the organic material is proteinaceous. The 1.4% acid insoluble material appears to be silicate (sand). The remaining elements are all trace elements. No specified toxic heavy metals were detected above the detectors limit of 1 mg/kg.

The test methods used in the is laboratory are based on APHA, WAWA and Envirogard procedures.



Dr A J (Tony) Hendry
PLANT CHEMIST/OPERATIONS MANAGER