

## SOIL INORGANIC NITROGEN EXTRACTION

### **Materials Needed:**

- 2.0 M KCl (149.1g KCl per 1L extractant)
- Bottle-top pipetter
- Squeeze bottle with 2 M KCl
- Funnel (Fisher # 10-500-20)
- Funnel racks
- Whatman No. 1 filter paper (Fisher # 09-805C)
- Specimen cups (Fisher 14-375-148)
- Scintillation vials (Fisher # 03-341-72C)
- 50 ml glass beakers
- Aluminum weigh boats (Fisher # 08-732-101)

For each sample, you will require 2 subsamples:

- One subsample (10 g) for determining gravimetric soil moisture
- One subsample (10 g oven-dry equivalent) for immediate extraction with 0.5 M KCl.

### **Gravimetric Soil Moisture**

48 hours @ 105°C, See *Gravimetric Soil Moisture Protocol*

### **Extraction**

Note: extraction is identical to *Chloroform Fumigation Protocol* but with 2M KCl instead of 0.5M K<sub>2</sub>SO<sub>4</sub>

- Place subsample in a specimen cup with 50 ml 2M KCl.
- Place on shaker for 1 hour at 200 rpm.
- Allow samples to settle for 1 hour after shaking.
- Gravity filter the supernatant through pre-wetted (with 2M KCl) filter paper, folded to fit funnels.
- Transfer filtered extracts to labeled sample vials, leaving at least 1cm head space to prevent bursting.
- Freeze extract to store.