MOSS MEDIA

(Based on Essential Moss Methods, from the University of Leeds.)

Growth media:

- stock solution B 2.5 ml
- stock solution C 2.5 ml
- stock solution D 2.5 ml
- 1x trace element solution 250 µl
- di-ammonium (+) tartrate (0.5 M) 2.5 ml
- agar (Oxoid) 2 g
- dH₂O to 250 ml

Autoclave, then add 0.5 ml of 0.5 M CaCl₂ (filter sterilised). When media has cooled sufficiently, pour plates under sterile conditions. Plates can be stored at 4°C for about 1 month.

Stock solution B:

\[ \text{MgSO}_4 \cdot 7\text{H}_2\text{O} \text{ (magnesium sulphate 7-hydrate)} \quad 2.5 \text{ g} \]

(or 1.2 g of anhydrous MgSO₄)

\[ \text{dH}_2\text{O} \quad \text{to 100 ml} \]

Make several 2.5 ml aliquots, and store these and any remaining solution at -20°C.

Stock solution C:

\[ \text{KH}_2\text{PO}_4 \text{ (potassium phosphate)} \quad 2.5 \text{ g} \]

\[ \text{dH}_2\text{O} \quad \text{to 50 ml} \]

Adjust pH to 6.5 with minimal volume of 4 M KOH. Then make up to 100 ml with additional dH₂O. Make 2.5 ml aliquots (as above) and store at -20°C.

Stock solution D:

\[ \text{KNO}_3 \text{ (potassium nitrate)} \quad 10.1 \text{ g} \]
**FeSO₄.7H₂O** (iron sulphate 7-hydrate) 0.125 g
dH₂O to 100 ml

Make aliquots and store at -20°C (as above).

**20x trace element solution:**
- H₃BO₃ (boric acid) 614 mg
- AlK(SO₄)₂.12H₂O (aluminium potassium sulphate 12-hydrate) 55 mg
- CuSO₄.5H₂O (cupric sulphate 5-hydrate) 55 mg
- KBr (potassium bromide) 28 mg
- LiCl (lithium chloride) 28 mg
- MnCl₂.4H₂O (manganese chloride 4-hydrate) 389 mg
- CoCl₂.6H₂O (cobalt chloride) 55 mg
- ZnSO₄.7H₂O (zinc sulphate 7-hydrate) 55 mg
- KI (potassium iodide) 28 mg
- SnCl₂.2H₂O 28 mg
dH₂O to 50 ml

Solution will be cloudy at 20 x concentration. Shake thoroughly before making 1 ml aliquots. Store at -20°C. Remember to dilute to 1 x concentration before adding to growth media.

**0.5 M di-ammonium (+) tartrate:**
- 9.2 g in 100 ml dH₂O

Aliquot and store at -20°C.

**0.5 M CaCl₂:**
- 3.67g CaCl₂ in 50 ml dH₂O

Filter sterilise. Make 1 ml aliquots and store at -20°C.