



Faecal Flotation Solutions

The most important thing to understand about faecal flotation solutions is that the solution itself *must* be heavier than the parasite eggs (so they will float!). To get this right, we need to know a little bit about 'specific gravity' or SG.

The SG of most of the eggs we encounter in evidence based worming for horses is in the range of 1.1-1.2g/ml. Tap water is 1g/ml, so unfortunately that won't work for us. We need to use something else.

Our options are:

- ✧ Sugar – SG is about 1.2 (sticky and requires a preservative for retaining the liquid)
- ✧ Sodium Chloride (table salt) – SG is 1.2
- ✧ Magnesium sulphate – SG is 1.2
- ✧ Zinc Sulphate – SG is 1.18-1.2
- ✧ Sodium Nitrate – SG is 1.18-1.2

There are also some commercial flotation solutions such as Fecamol™ which is already in liquid format but it doesn't appear to be available in Australia.

At EBW we like to use a Magnesium Sulphate (MgSO₄) solution because

- ✧ Its SG is 1.2
- ✧ It is inexpensive
- ✧ It is easy to prepare, not messy or sticky
- ✧ It does not need a preservative to retain for subsequent flotation
- ✧ It is available everywhere*
- ✧ It has no environmental consequences (you can pour your used solutions onto your garden bed and the plants will thank you for it).

Preparing your flotation solution with MgSO₄:

1. Purchase some MgSO₄ at your supermarket, produce store or garden centre
2. Weigh out 400g of MgSO₄ on your kitchen scales
3. Put 1000ml (1 litre) of warm water into a container with a wide mouth
4. Add the MgSO₄ granules and stir until they are completely dissolved
5. Transfer solution to a lidded container for storage for future use (I find a recycled plastic milk or juice bottle perfect for this purpose) .

The busy horse-person's guide to preparing a flotation solution with MgSO₄:

1. Steps 1. and 3. as above
2. Keep adding MgSO₄ until no more will dissolve – this is now a 'saturated solution' and the liquid above the undissolved granules will have an SG of 1.2 (but you will use more MgSO₄ with this method)
3. Step 5 as above.

* MgSO₄ is also known as Epsom Salts and EBW markets this as FECflote™ Granules. EBW only provides FECflote™ granules as part of its FEClab™ kit and not separately as additional high postage costs to ship a small amount would, in our opinion, be unethical to pass on to our clients.