

WHITLOCK worm egg counting - Calculations

The **WHITLOCK** worm egg counting slides are particularly designed for the quantitative estimation of the number of parasite eggs per gram of faeces in animals.

The overall methods which utilise this information can estimate the degree of infestation in livestock and the efficacy of treatments.

STANDARD CALCULATIONS:

download a compressed (24K ZIP) [FREE Excel \(4 or later\) spreadsheet calculation program](#) to get you started

A bit of practice looking down the microscope
[FREE flash egg counting demonstration](#)
and as a [ZIP compressed file](#)

(Note that a lot of antivirus software may try to block this).

The mean of two counts is recommended in calculating egg counts.

To determine the number of eggs per gram (**epg**) of faeces-

multiply the number of eggs of each type counted in the scanned area of the slide by

$$\frac{\text{Volume of (water + faeces sample)} + \text{Flotation solution}}{\text{Volume of faeces sample} * \text{Measurement volume used}}$$

(Volume of faeces sample= weight of faeces sample)

(Measurement volume used may be only a part of the slide)

(This fraction is the FACTOR referred to in the table.)

eg: For 2g faeces in 58ml of flotation solution (2g:60ml)

place **2g** faeces in **2.5ml** water (or 0.1% aqueous **methylene blue**) and **55.5ml** [flotation solution](#) and measure or count in **one chamber** (0.3ml for the [Whitlock McMaster](#))

- (for calculations for other Whitlock slides and different dilutions see [Universal](#), [McMaster](#) or [Paracytometer](#)):

- (or click here to download a FREE Excel spreadsheet calculation program to get you

started)

$epg = \#eggs * (2.5+2+55.5) / (2 * 1*0.3) = \# * 100$ where " * "
means "multiply"

(in other words, *in this instance*, multiply the number of eggs counted by 100 to give the *epg*.)

Reference:

Details about the techniques which use these slides may be found in the Section on Anthelmintic Resistance in Sheep (para 9.1 in particular) in ***Australian Standard Diagnostic Techniques for Animal Diseases***. - ISBN 0 643 05243 7 636.0896075 developed through the Standing Committee on Agriculture and Resource Management, Animal Health Committee, [SCARM] Sub-committee on Animal Health Laboratory Standards [SCAHLs] and published on their behalf by CSIRO Information Services, Australia.

(Note that the recommended dilution is intended for the Whitlock Universal slide to give a simple Factor as above. Alternatives are permitted)

Available as 1.6Mb pdf on our website at www.whitlock.com.au/slides/pdf/ASDT-AnthelmResist-signed.pdf

and on the SCAHLs website at <http://www.scahls.org.au/asdts/05-AnthelminticResistanceinSheep.pdf>

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