

Intercalibration of a concentration McMaster technique between eight European laboratories

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Introduction: Prior to a European prevalence survey of intestinal parasites of organic pig herds it was relevant to introduce one common technique for faecal egg counts and to compare its execution at all involved laboratories to ensure data compatibility.

Methods: Faeces containing *Ascaris*, *Trichuris*, strongyle, and coccidia eggs/oocysts was mixed thoroughly and distributed along with a written description of the selected method to laboratories in Austria, Denmark, Finland, France, Germany, Italy, Sweden and Switzerland. In each laboratory, 6-10 replicate faecal samples were analysed by one technician using the same concentration McMaster technique. This was followed by distribution of a second batch of faecal material accompanied by key laboratory materials and additional material (films, pictures etc.) on how to apply the technique.

Results: In the first test there was up to a 360-fold variation in egg counts between laboratories. Provision of identical laboratory materials and further instruction was effective as the variation for *Ascaris*, *Trichuris* and Strongyles was reduced considerably in the second test. A continued high variability in the coccidia between laboratories may be attributed to a variation in flotation time. Some variation for all species also remained for individual technicians which may in part reflect some of the constraints inherent to the technique.

Conclusion: Prior to any study of which the outcome depends on comparison of data obtained by one or more persons at the same or different laboratories it is extremely important not only to use identical techniques but also to implement the technique in exactly the same way.