

Chapter (non-refereed)

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Use of cotton strip assay to assess the effect of formaldehyde treatment on a peat soil

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Poster summary

An area of 2–3 ha of low-lying blanket bog on Gruinard Island, Wester Ross, Scotland, was known to be contaminated with anthrax spores released during 1943. Formaldehyde was selected as the most suitable agent for decontamination. Prior to decontamination, the likely ecological consequences were investigated and the cotton strip assay was used among other biological tests to assess the extent and rate of recovery of decomposer activity after a sterilizing application of 5% formaldehyde solution at 50 l m⁻² (Miles *et al.* 1988).

This example of a practical application of the assay

was described. The study effectively demonstrated the early return of decomposer activity after the virtual elimination of all microbial activity, and showed that recovery was enhanced by the addition of fertilizer.

The results of the cotton strip assay gave similar results to other assessments, which were of microbial populations or activity, and all tests indicated a recovery period of about 2 months.

Reference

Miles, J., Latter, P.M., Smith, I.R. & Heal, O.W. 1988. Ecological effects of killing *Bacillus anthracis* on Gruinard Island with formaldehyde. *Reclam. Reveg. Res.* In press.