

# **Comparing oxidation efficiency in large and small samples of high and low carbon content soils**

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## **Abstract**

Progressively smaller samples from two soils differing in carbon concentration were oxidized using NaOCl pH 8 to test if variability changes as a function of sample mass. Each soil sample was treated to three six hour cycles of wet oxidation, washed with deionized water, dried in an oven, and analyzed for total carbon content. The standard for the experiment was set with a large sample of 10g which the ensuing data was compared to. While I was able to obtain similar numbers for carbon content and oxidation efficiency with both large and small samples, the coefficient of variance increased decreasing sample size, especially in the high carbon soil. The data observed suggest that small samples demonstrate greater variability than large samples for organic matter oxidation.