

SAMPLING BURIED SEEDS
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Abstract. Studies of the dynamics of seed banks in the soil require a sampling intensity and method which estimates the number of seeds with known accuracy. Sampling intensity studies are few and "Most workers have compromised by taking what appeared to be a 'reasonable' number of samples" (Roberts 1981). Minimal sample size is an obvious requirement for processing using labour intensive extraction procedures to separate seeds.

We have statistically defined the number of cores required to sample a plot and the minimum sample size necessary for laboratory processing with known confidence limits.

The statistical techniques of "Bootstrap" (Efron 1979) and "Jackknife" (Tukey 1958; Mosteller and Tukey 1977) were compared with conventional analyses of variance. These *distribution free* techniques eliminate the need for prerequisite assumptions about the distribution of seed populations and are useful for small samples. Because of these advantages the techniques supersede the type of analyses undertaken by Goyeau and Fablet (1982).

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