

A. Explore potential for sequential sampling (single-parameterization, SPSS; or local-parameterization, LPSS) using R scripts available in Software S1.

1. Is strong spatial autocorrelation present? → **YES** → **Reject SPSS/LPSS** → to Chart B*
(Mantel.R, Variogram.R)



2. Can infestation data be fit to a standard statistical distribution? → **NO** → **Reject SPSS/LPSS** → to Chart B
(Normal.R, NegBin.R)



choose distribution

3. Do parameter estimates vary among sites? → **NO** → **Use SPSS**
(NegBin.R)



Reject SPSS

4. Can local parameters be estimated with reasonable sample sizes? → **NO** → **Reject LPSS** → to Chart B
(SubSampleK.R)



Use LPSS

**Or develop more complex methods for sequential sampling with autocorrelation*

Figure S6. Summary of our analytical approach. Italics refer to R scripts and software available as Software S1-S4.

B. Simulate simple non-sequential sampling schemes (*InfestSample1.10*)

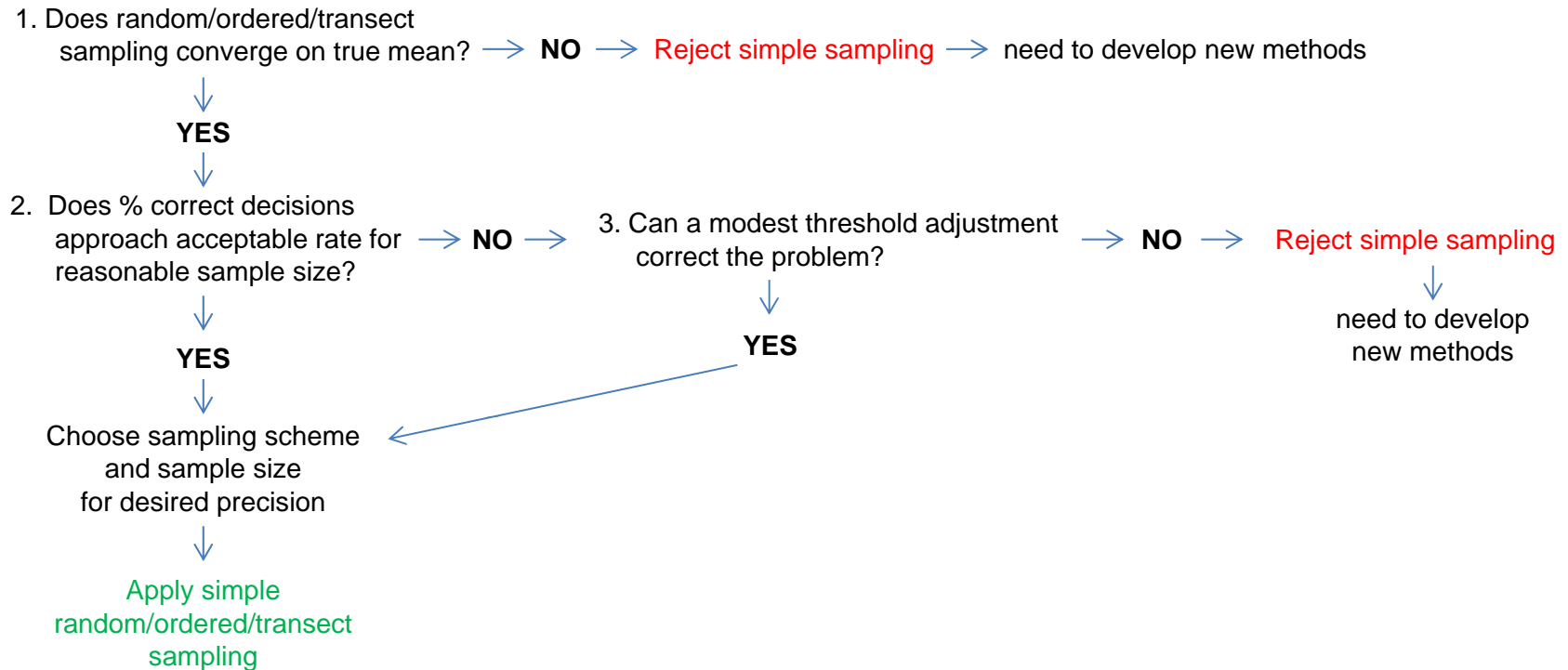


Figure S6. Summary of our analytical approach (continued).