

FRACTIONAL FACTORIAL DESIGNS FOR FERTILIZER EXPERIMENTS WITH 25 TREATMENTS IN POOR SOILS

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- **ABSTRACT:** *In this paper, we discuss some aspects of fractional factorial designs $5^{k-(k-2)}$, where k is the number of factors, with only 25 treatments involving two to six quantitative factors, with the purpose of using them on experiments on poor soil areas like those of “cerrado”. They are specially developed in order to assess the nutritional response to fertilizer soil addition in new areas. We also evaluate the performance of the design using simulations considering previous information.*
- **KEYWORDS:** *Factorial experiments; high-order interactions; alias structure; confounding; simulation; bias.*

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