

# Exchangeability

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- When we analyze a model of the form

$$y_{ij} = \mu + \tau_i + e_{ij}$$

- We typically assume a constraint

$$e_{ij} \sim \mathcal{N}(0, \sigma^2)$$

- This assumption is typically valid if each  $y_{ij}$  represent exchangeable units.

- In a small-plot experiment, we design plots to be exchangeable.

# Exchangeability



- ☐ Soil map units
- ☐ Topography
- ☐ Wetlands