

Kill beetles with
insecticide

X_i = dosage for i -th
observation (i -th
spraying)

n_i = number of beetles
that get sprayed on i -th
spraying

Y_i = number of beetles
killed on i -th spraying

Model: $Y_i \sim \text{Bin}(n_i, p_i)$

$$\text{logit}(p_i) = \alpha + \beta x_i^*$$

where $x_i^* = x_i - \bar{x}$