# Maternal, Cytoplasmic and Paternal effects on Sorghum Grain Yield and Yield Components. (C01-nelson112446-Poster)

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## Abstract:

Reciprocal crosses between population steriles and fertile pollinators and two A/B lines differing in seed number and seed weights were used to examine whether maternal effects may contribute to grain yield. Measurements from generations P1 (NSSC5 population), P2 (inbred line), F1, F2, BC1 and BC2 were obtained from two experiments, one under field and another under greenhouse conditions. Traits were grain yield, yield components and respiration rates throughout the development of sorghum. The genetic analysis included fixed and random effects. Results suggest that maternal effects were important for yield, seed number and seed weight. Direct and cytoplasmic effects were more important for yield and seed number than for seed weight. Respiration seems to be primarily influenced by maternal inheritance.

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