

Strip Cropping Effect on Yield of Maize, Cowpea and Groundnut in Northern Ghana

Larbi A.¹, Addul Rahman N.¹, Hoeschle-Zeledon I.²

¹International Institute of Tropical Agriculture (IITA) – Tamale, Ghana

²International Institute of Tropical Agriculture (IITA) - Ibadan, Nigeria

Corresponding author email: a.larbi@cgiar.org

Key research activities

A randomized complete block design with 5 replicates was used. Intercrop treatments were maize pure stand (M), cowpea pure stand (C), groundnut pure stand (G), 2M:2C, 2M:2G, 2M:4C and 2M:4G. Grain yield, land equivalent ratio (LER) and land saved were measured.

Results and main findings

- Strip cropping did not affect grain yield of maize, cowpea and ground.
- land equivalent ratio of strip cropping showed better productivity (Fig. 1).
- Land saving for strip cropping showed positive results (Fig. 2)
- Majority of farmers preferred 2M:2L option (Fig. 3)

Implications of the research for generating development outcomes

Strip cropping of maize and legume at 2M: 4L or 2M: 2L may be used to increase productivity of maize-legume system in Northern Ghana.

How this work would continue in Africa RISING phase 2

Results from this study can be used for scaling-up activity in Africa RISING phase 2 to improve productivity of crop –livestock systems in northern Ghana.

Current partnerships and future engagements for out scaling

Current : Ministry of Food and Agriculture (MoFA)

Future: Agricultural Technology Transfer project (ATT)

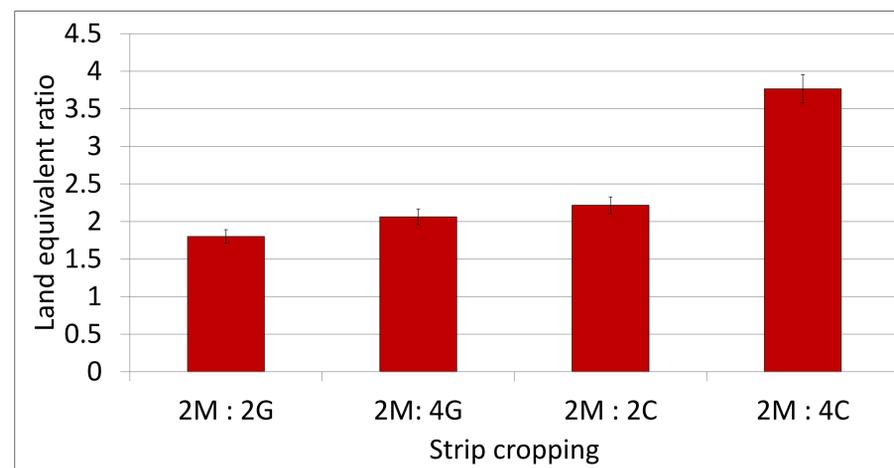


Fig. 1: Effect of strip cropping land equivalent ratio

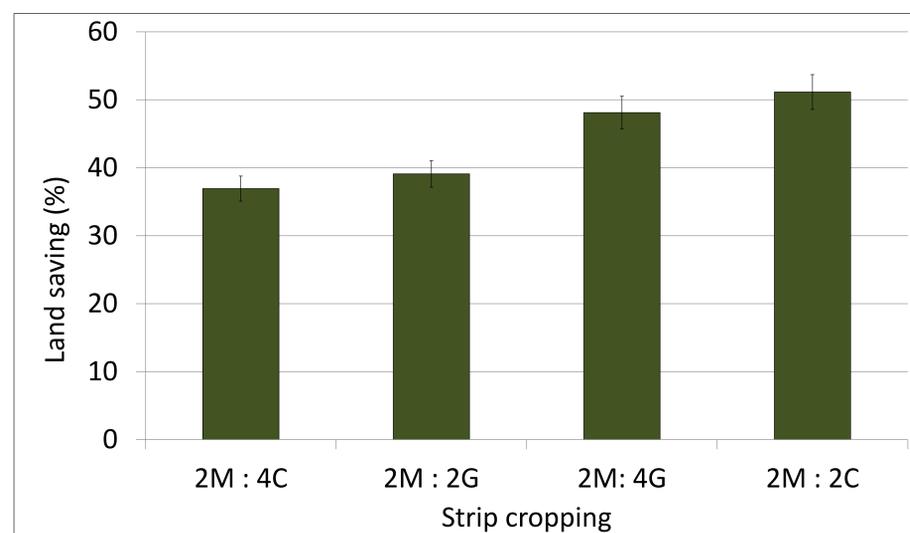


Fig. 2: Effect of strip cropping on land saving

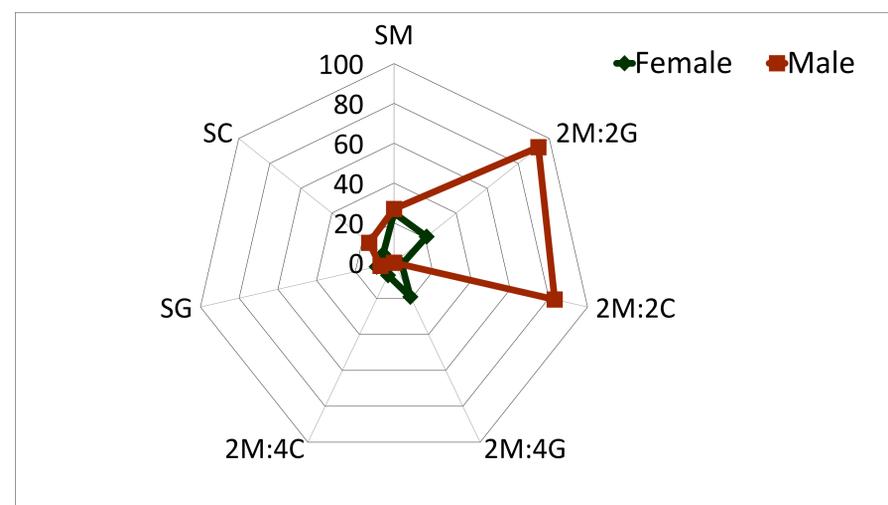


Fig 3: Farmer preference for strip cropping