Tropentag, September 11-13, 2024, hybrid conference

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Equal benefits or not? Farmer perceptions of the cowpea living mulch technology in northern Ghana

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Abstract

Live mulch cropping systems improves soil fertility, yield productivity and smother weed growth. However, it increases labour demand for field activities such as planting and harvest in smallholder farms. Limited literature exists on the gender group who benefits the most from live mulch cropping systems in smallholder farms. A gender evaluation was conducted in 2019 to assess farmers experiences in relation to the benefits of the cowpea living mulch (CPLM) technology. The CPLM is the intercropping of cowpea at 1–2 weeks after planting maize as a living mulch for sustainable production of maize in smallholder farms. Twelve gender (6 female and 6 male) focus group discussions were held with 84 sampled African RISING farmers who validated the CPLM technology for two years (2017–2018). The SSustainable Intensification Assessmentframework was used as a guide to assess the benefits of the CPLM technology across 5 domains (productivity, economic, environment, human and social). Drudgery scores and household members labour involvement at different cropping stages of the technology were also assessed through participatory scoring activities. Both male and female farmers perceived an increase in soil fertility (environment), cowpea consumption (human), income (economic) from CPLM than the maize monocrop. Whereas some farmers perceived maize yield to increase under CPLM compared to maize monocrop in the first season, others perceived maize yield increase after the first season of practicing the technology (productivity). While also recognising that weeding is done once in the CPLM relative to the twice weeding in the maize monocrop, farmers perceived the CPLM to be time-consuming and labour demanding during activities such as planting and harvesting, tasks that are often done by women and children. Despite the perceived benefits of the CPLM as highlighted above, it increases the labour burdens of especially women during planting (20 %) and harvesting (13–33 %) activities compared to that of men. We recommend the adoption of simple mechanised planters and harvesters to lessen the labour burdens of women farmers to enjoy the full benefits of the CPLM technology through it effects on environment, productivity, income, gender equity, food, and nutritional security.

Keywords: Cover cropping, gender, Ghana, perceptions, smallholder farmers

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