

Effect of sesame (*Sesamum indicum* L.) population density in a sesame/maize (*Zea mays* L.) intercrop on the incidence and severity of foliar diseases of sesame

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Abstract

A field study was conducted in Abeokuta, Nigeria, to investigate the effect of different population densities of sesame intercropped with maize, in a single alternate row (1:1) arrangement on the incidence and severity of foliar diseases of sesame during the early and late cropping seasons of 2006 and 2007, respectively. The experiment comprised four treatments, namely sesame planted at 266,666, 177,777 and 133,333 plants/ha intercropped with maize (53,000 plants/ha) and sole sesame at 266,666 plants/ha. Sesame at 133,333 plants/ha + maize showed a lower incidence of *Cercospora* leaf spot (CLS) and *Alternaria* leaf blight (ALB) disease and also produced a higher grain yield than the other treatments. The incidence of normal or discolored seeds was not influenced by sesame population density. Significant negative correlations existed between foliar disease incidence and proportion of normal or white/cream colored seeds. Foliar disease incidence was negatively correlated with incidence of abnormal or discolored seeds. Intercropping did not influence maize agronomic characteristics and grain yields.