Evaluation of Organic Manure And Parkia biglobosa Pulp Powder On Striga hermonthica Control In Sorghum Under Organic Farming.

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Abstract

A polyethene bag experiment was conducted in a screening house at the research farm of GidanKwano Campus of Federal University of Technology Minna, (09 39'N and 06 28'E) lying within the Southern Guinea Savannah zone of Nigeria with mean annual rainfall of 1300mm. The experiment was conducted between June and November 2013 to determine the effect of organic manure and Parkiabiglobosa pulp powder on Strigahermonthica control in sorghum in randomised complete block design with sixteen treatment in three replications. Treatments consisted of combinations of four levels of organic manure and Parkiabiglobosa pulp powder each at 0, 40, 80, and 120g/bag. Parameters measured for striga were: Striga emergence and Striga height all at 4, 6, 8, 10 and 12 week after sowing (WAS). Parameter for sorghum plant were: Plant height and Number of leafs per plant at 4, 6 and 8 WAS. Watering was done base on moisture content of the soil to ensure adequate soil moisture. The result showed that, striga emergence did not vary significantly throughout the samplingperiods, however the treatment used inhibited the growth of striga in the presence of striga resistant sorghum variety. Organic manure at the rate of 120g/bag recorded the highest number of leaves, plant height and sorghum dry weight. The interaction effect of organic manure and Parkia pulp powder also showed significant effect on sorghum parameters. Organic farming can b e effectively to combat strigahermonthica in sorghum as the combination of the treatments suppressed more than 75% of strigahermonthica emergence.

Keywords: Organic Farming, Organic Manure, Parkia pulp powder and Strigahermonthica control.