

The effect of increasing planting density and thinning on forage and grain yield of maize in Kenyan smallholdings

JN Methu^{1,3*}, *E Owen*², *JC Tanner*³ and *AL Abate*⁴

¹Kenya Agricultural Research Institute, Muguga, Kenya. ²Department of Agriculture, The University of Reading, UK. ³International Livestock Research Institute, PO Box 30709, Nairobi, Kenya. ⁴Department of Animal Science, University of Namibia, Windhoek, Namibia. *Present address

Abstract *Maize was planted at two, three or four seeds per hole with uniform spacing and either the smallest plant (S) or the second largest plant (L) was thinned from each hole after 8 and 14 weeks from the four-seed plots and after 14 weeks for the three-seed plots. Two plants per hole were left to mature for grain production. Increasing the planting density to three and four seeds per hole increased the green forage yield without significant effect on the grain yield. Thinning L rather than S plants produced more green forage thinnings without affecting the grain yield. Planting maize at higher densities than the conventional and then thinning could be used as a method of increasing forage production on small farms.*