## YIELD PERCEPTIONS, DETERMINANTS AND ADOPTION IMPACTS OF ONFARM VARIETAL MIXTURES FOR COMMON BEAN AND BANANA IN UGANDA

<sup>1</sup>Rose Nankya, <sup>2</sup>Mulumba John Wasswa, <sup>3</sup>Francesco Caracciolo, <sup>3</sup>Maria Raimondo, <sup>4</sup>Francesca Schiavello, <sup>5</sup>Elisabetta Gotor, <sup>1</sup>Enoch Kikulwe and <sup>5,6</sup>Jarvis Devra (2017). Sustainability , 9, 1321; doi:10.3390/su9081321

<sup>1</sup> Bioversity International Uganda office; <sup>2</sup> Plant Genetic Resources Center, NARO; <sup>3</sup> University of Naples, Italy ; <sup>4</sup>Food and Agriculture Organization (FAO); <sup>5</sup>Bioversity International Rome Office; Department of Crop and Soil Sciences, Washington State University, Pullman, Washington, USA.





Crop variety mixtures (different varieties of a crop grown together in a single plot) have been successfully deployed in pathogen and pest management for several crops including wheat, common bean and rice. Despite the available evidence, promotion of this approach has remained limited in many countries, including Uganda. The factors that influence farmers' adoption of varietal mixtures for common bean and banana were assessed, as well as the perceptions of farmers about the effects of mixtures on yields, through household surveys and statistical modelling. An annual yield increase in both common bean and banana varietal mixtures in farmer fields, of 5.2% and 28.6%, respectively, is realized using the logit estimate. The study reveals that accessing knowledge on the importance of crop varietal mixtures and the skills relating to the approach are crucial for their adoption. Location of the farm significantly determined the perceived yield change, which calls for more research into mixtures' suitability under particular contexts in respect to compatibility of genotypes, management practices and appropriate acreage for maximum impact. The positive effects of mixtures on yields make it an effective biologically friendly economy strategy. Policies that minimize the adoption barriers could improve the adoption of crop varietal mixtures on a wider scale.





## Acknowledgement to Farmers and Partners :

