

ABSTRACT

French bean (*Phaseolus vulgaris* L.) is among important vegetables in supplying proteins, vitamins, minerals and dietary fiber to humans worldwide. Its successful production in the tropics is, however, constrained by abiotic and biotic stresses as the crop is predominantly grown in open fields. Netting technology has been proved successful in protecting crops against adverse weather and insect pests. Coloured net technology is an emerging technology, which introduces additional benefits on top of the various protective functions of nettings. Two trials were conducted at the Horticulture Research and Teaching Field, Egerton University, Kenya to evaluate the effects of different coloured agronet covers on growth, pod yield and quality of French bean. A randomized complete block design (RCBD) with six treatments and four replications was used. French bean plants were grown under a white, blue, yellow, tricolour or grey net cover with open field production as the control. Variables measured included days to emergence and emergence percentage (%), stem collar diameter, plant height, number of branches and internodes, internode length and crop yield. French bean grown under the different coloured net covers showed relatively better growth and crop performance marked by more pods and higher total yields and percentage of marketable yields compared to those grown in the open field. Growing French bean under net covers hastened the rate of pod maturation more-so under the light-coloured colour-nets. Findings of this study demonstrate the potential of coloured net covers in improving French bean pod yield and quality under tropical field conditions.