

## Abstract

Potato is an important food crop worldwide. Growers adopt potato production due its short growing season and poor soils tolerance. They use agrochemicals to improve growth under unreliable rainfall. Biozyme® foliar feed is widely used to hasten maturity and enhance yields of crops. It is said to be a storehouse of hormones and nutrients that improve crop health. It contains major hormones along with primary and secondary nutrients. This study determined if Biozyme® could overcome deficit rainfall and enhance potato growth to adapt to climate change. The arrangement was split plots in randomized complete block design replicated three times and repeated once. Main plots were assigned to potato cultivar (Tigoni and Asante) and subplots to Biozyme® rate (0, 125, 250, 500 and 750 ml/ha). Each subplot was planted with 28 tubers spaced at 30 cm x 70 cm in four rows. A distance of 1 m separated plots. Plant growth in height, stem diameter and aboveground biomass increased with increase in Biozyme® rate. The 750 ml/ha rate increased height by 41%, stem diameter by 55.34%, chlorophyll by 19.45 spads, flowers by 21.86%, as compared to the control rate (0 ml/ha), but was not significantly different from 500 ml/ha rate. Increased height, leaf area index, chlorophyll content, aboveground biomass is good as it enhances photosynthate synthesis and translocation to edible tubers. Thus, foliar-feeding potato plants with at most 500 ml/ha Biozyme® is recommended for hastening growth in regions with deficit rainfall.