Extracting Humic Acid From Banana Peels To Reduce the Risks of Salinization

Mutama, Ruvarashe (School: Queen Elizabeth Girls' High School)

Salinization has slowly developed behind the scenes of each agricultural advancement. The accumulation of water soluble salts in soil is a problem that has come about due to farming practices such as irrigation and use of fertilizers which contain potentially harmful salts. This reduces soil fertility. The world population has increased therefore food production is now of paramount importance. There is also a problem of world hunger and farmers cannot afford to lose more fertile soils. Agriculture is the backbone of the Zimbabwean economy and also, 54 percent of Africa relies on the agricultural sector for income and employment. In an attempt to sustain soil fertility and reduce the risk of salinization, humic substances were extracted from banana peels using sodium hydroxide and acetate. Decomposed banana peels and sodium hydroxide were mixed at a ratio of one millilitre banana peels to twenty millilitres sodium hydroxide. The pH of the solution was lowered using acetate. Soluble and insoluble substances were obtained and the products were collected for result analysis.

Awards Won: