



Effectiveness of botanical gardens in influencing visitors' ecological knowledge: A case study of the Pietermaritzburg (PMB) Botanic Gardens – Mpumelele Faith Gumede

Widely published studies have mostly focused on the effectiveness of botanical gardens as tourist destinations. Such studies have neglected to assess their effectiveness in imparting knowledge and awareness of sustainability, nature conservation and biodiversity to visitors. This study assessed the role and value of botanical gardens' environmental education in improving knowledge, changing attitudes and promoting good behaviour towards the environment. Public perceptions towards the role and value of botanical gardens were evaluated. The environmental education strategies used were also evaluated in terms of their effectiveness and the value they provide. The study resulted in the development of an environmental education model that will be instrumental in enhancing botanical gardens' ability to offer good quality environmental education. This research has provided practical solutions and recommendations for new strategies and technologies that can be used to increase ecological understanding and change people's perception of the importance of botanical gardens.

The impact of vermicompost on growth and nutrient constituents of tomato, *Solanum lycopersicum* (L.) H. Karst – Olusoji David Alabi

The researcher is an agricultural conservationist and this project was born out of a desire to reduce the use of inorganic fertiliser and the excessive accumulation of nitrate in the soil, which has been traced as the cause of some chronic diseases in the community. The aim of the study was also to investigate how agricultural waste can be minimised and soil degradation addressed. This was achieved through feeding agricultural waste to earthworms. The leachate obtained from this process was introduced into growing tomatoes at different concentrations. At the end of the project, vermicompost was found to be a reliable organic fertiliser provided all conditions are met during production. Ecosystem management is required to support the growing global population and the researcher looks forward to doing more research in this area.

