

BANANA PRODUCTION IN ZIMBABWE: AN ANALYSIS FROM A BIOTECHNOLOGICAL PESPCTIVE

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Abstract

Aim The efficiency of production depends greatly on knowledge of the plant's performance (including stress tolerance, nutritional quality and overall yield) and genetics. The review was aimed at gathering information on the conservation of banana germplasm and its potential in breeding programs. Finding out whether banana cultivars being grown in Zimbabwe have been characterized both genetically and morphologically thus creating a catalogue and also assessing production and its impact in Zimbabwean economy. The evaluation of species distribution models that can better extrapolate production to new area within the country. **Location** Zimbabwe **Methods** Obtaining information on banana production in Zimbabwe has been done through phone call inquires to research stations and plantations, face to face inquires and literature search on peer-reviewed publications and also greys literature. **Results** Information obtained through database search was extremely limited. Literature citing banana production in Zimbabwe was not greater than 0.00028%. Interaction with farmers and the department of Agricultural, Technical and Extension Services (AGRITEX) Officers yielded better results showing a clear picture of undocumented relevant banana information. **Main Conclusion** Characterization of Musa Spp. is a necessity for germplasm conservation, breeding and improved banana production. Currently, there is vast literature on characterized banana accessions across the globe, but limited publicly available information concerning accessions in Zimbabwe. Banana production in Zimbabwe is concentrated in the warm and humid areas and similar climatic conditions are found in areas dotted across Zimbabwe. Using species distribution models, cultivars can be mapped to new environments and this in return expands production area in the country. In so doing, cultivars digital maps are created for ease of banana information access. Cultivar maps and biological information from multi-locational gene banks has great potential for use in banana production improvement programs.

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