

**CHARACTERISTICS OF SELECTED ACID RICE GROWING SOILS IN
ZAMBIA AND FACTORS INFLUENCING THEIR PRODUCTIVITY**

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ABSTRACT

Rice production in Zambia is restricted to flood plains and dambos. Dambo is a local name for seasonally water logged shallow depressions found on the plateau. The land area covered by dambos is estimated at 3.5 to 4 million hectares. The proportion of this area covered by acid dambos is presently not known.

Production of rice in the dambos is primarily dependent on the drainage conditions. All the dambos utilized for this purpose are poorly drained due to high groundwater tables. The acid dambos have a pH (CaCl₂) ranging from 3.5 to 5.0 throughout the profile. However, under flooded conditions the pH rises creating a favourable environment for rice growth. The texture profiles of most acid dambos are favourable to puddling except those of the western part of Zambia which are very sandy. The natural fertility status of the dambos is very low. This is mainly due to low organic matter content and low nutrient retention capacity. Consequently, the productivity of the dambos is rather limited. The other limiting factor is that production of rice in Zambia is almost exclusively by emergent farmers with a comparatively low level of management.

Considerable effort is being made to promote rice production through research, extension and price incentives.