

How farmers select and manage yam (*Dioscorea* spp.) diversity in Wolayita, Southern Ethiopia. (Oral Presentation)

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Introduction

Yam (*Dioscorea* spp.) is among the major tuber crops cultivated in Ethiopia, an important center of yam cultivation outside the so called 'yam zone' of West and central Africa. Despite a long history of cultivation and its significance in local livelihood, the extent of yam diversity and the associated indigenous knowledge has been hardly studied. Consequently, issues concerning conservation and improvement of yam are yet to be addressed.

Objectives

To investigate yam landrace diversity, and assess how diversity is selected and managed by local farmers in Wolayita, one of the major production areas in Southern Ethiopia.

Methods

A farm-level survey covering 299 households was conducted during the 2003/2004 cropping season. Households were selected using a stratified sampling procedure to cover the ecological range of yam. Data collection methods included field visits and in-depth individual interviews using structured and semi-structured questionnaires.

Results

Wolayita farmers manage diverse yam landraces with respect to time of maturity, adaptation to environmental conditions, and culinary properties. They generally recognize two major categories of yam: hatuma boye ('male' yam) and macha boye ('female' yam) mainly based on maturity time and vigor, but without reference to the reproductive biology of the plant. This classification is largely consistent with our findings based on morphological and DNA markers. Landraces within each category are further identified based on a range of plant and environmental attributes. A total of 37 named landraces were described throughout the study area and, on average, farmers managed 2.9 landraces per farm.

Conclusion

Local farmers possess extensive knowledge about the diversity present in yam, which is selected and managed accordingly to meet household demands. Yam is adapted to dry-season planting, and early harvests fill a seasonal gap in food supply. Although yam is establishing itself as an important cash crop in some localities, there is a general decline in production due to different environmental and production factors. Thus, there is a need for efficient conservation strategies and improvement programs that take into account farmers' knowledge and the importance of diversity in local agriculture.

Keywords: landrace diversity, local knowledge, Wolayita

Selected References

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