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The Potential of Oyster Nuts (*Telfairia pedata*) for Environmental Conservation and Food Security in Tanzania: A Review

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The Potential of Oyster Nuts (*Telfairia pedata*) for Environmental Conservation and Food Security in Tanzania: A Review

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Abstract

The oyster nut, *Telfairia pedata*, a vine that grows on tall trees, is native only to Tanzania and Uganda. Its nuts are valued by the local population mainly because of their lactogenic properties. Despite its nutritional, economic, and environmental benefits and its low management demands, little is known about why this species has almost disappeared from local markets and farmlands. We selected 187 publications that described the current nutritional, environmental, and commercialization potential of *Telfairia* species as well as their socioeconomic importance, domestication, and utilization in East Africa. Most studies (60%) mentioned the nutritional and health benefits of *Telfairia* species, while 40% described their socioeconomic and environmental potentials. Almost half of the studies (47%) cited lack of alternative propagation methods to seeds, including cuttings, tissue culture, and grafting, as a constraint for oyster nut development. We conclude that studies on oyster nut production are rare despite its potential to contribute to food security, environmental conservation, and commercialization. The future of oyster nut production depends on the efforts by agriculturalists, conservationists, and nutritionists to conduct collaborative research and outreach programmes on this underutilized crop to diversify livelihoods of Tanzania's smallholder farmers.

Keywords

Underutilized plant; Orphan crop; Agro-biodiversity; Nutrients; Vine; Oyster nuts (*Telfairia pedata*); Tanzania; Uganda