

Upland rice: A new high potential non-traditional cash crop for Africa

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Abstract

Rice is the main staple food for almost half of the world's population and leading cereal in terms of production area and consumption. Rapid urbanization and changes in consumer preferences have led to a concomitant increase in consumption which so far exceeds any other crop in Africa. Therefore, upland rice cropping has become a common sight in Africa as farmers engage in diversification and respond to demand for the crop. Interspecific hybridization of African rice (*Oryza glaberrima* Steud.) and Asian rice (*Oryza sativa* L.) produced upland rice NERICA varieties that combine adaptability, tolerance to stresses and high production potential. Traditional African rice varieties though adapted to the continent are prone to lodging, shattering and comparatively low yielding which adversely affects production and consequently their adoption. Some of the poorest farmers are found in Africa where there is dependence on biomass cooking fuel and upland rice has greater significance. There is, therefore, need to re-evaluate the role played by the crop, identify gaps and proffer solutions that will make it productive and widely cultivated. Accordingly, this review intends to examine upland rice production patterns and strides which can be made to sustainably increase its productivity so that there is food and nutrition security. Some of the pertinent issues that need to be considered include prioritization of farmer preferences in quality and agronomic attributes to enhance adoption. Upland rice breeding programs can go beyond traditional breeding for stresses and yield but focus on genetic biofortification to use the crop as a conduit for vital nutrients. Ultimately, for sustainable rice productivity, there is need to have affordable infrastructure to lessen labor requirement particularly during production and post-harvest processing. Moreover, there is need to build institutional capacity to conduct more research and offer extension services to support production of the crop. A wider product portfolio for the crop will subsequently have a multiplier effect and enhance adoption of rice production by many farmers in Africa. The ultimate aim is to spread awareness of upland rice as an alternative cash crop that can be produced in suitable agroecologies in Africa.

Key words: Crop diversification, NERICA, *Oryza glaberrima*, *Oryza sativa*, Upland rice