Abstract

Ziwa Lake, otherwise known as wild rice, is a staple food source and also an important part of the Oldbie culture. In the 20th century, wild rice production in the villages of the Ziwa Land Board of Lake Supari is a significant activity. Wild rice is a valuable food source, and its cultural and ecological value is high. However, the quality is not as good as expected, and the yield is low. This study aimed to improve the yield and quality of wild rice by using nutrient management and soil improvement techniques. The research described here is part of a larger NSF-funded project (Minneapolis) that focuses on student outcomes, education, and outreach. The primary research and data analysis focused on nutrient management and soil improvement. These efforts were aimed at improving the yield and quality of wild rice, and the results were analyzed using statistical methods. Soil samples from Ziwa Lake were collected and analyzed for nutrient content, and the results were used to develop nutrient management plans. The soil samples were analyzed using laboratory methods, and nutrient content was correlated with yield and quality. Soil improvement techniques, such as soil amendments and soil health, were used to enhance nutrient availability and soil health. The primary objective of this research is to better understand how nutrient conditions have changed in the lake and how these changes affect wild rice yield and quality. The results of this research will be disseminated through workshops and training sessions to educate local communities on nutrient management and soil improvement practices. The ultimate goal is to improve the yield and quality of wild rice in Ziwa Lake, thereby supporting local livelihoods and cultural practices.