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## **Evaluation of potato varieties for their yield and food value in the central part of Tigray region, Ethiopia**

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Seeds of the candidate varieties were brought from the regional research institute and taken for their yield and food value evaluation purpose. The trial was carried out around Axum city in a district called Naeder Adet, Ethiopia, in 2009 under the main growing season on ten farmer's fields. The varieties used in the study include three released potato varieties viz. Gera, Guasa and Gudena along with one standard check. The management aspects/agronomic practices were carried out as per the recommendation for potato cultivation. During the evaluation process, both quantitative and qualitative data were taken and subjected in to analysis of variance and fried-man non-parametric test, respectively. The analysis of variance showed that there is statistically significant difference among the varieties in plant height, stand count, tuber weight and number of tubers per plant, and marketable yield. Gera was the best variety with regard to different parameters as the variety showed significantly higher marketable yield (20.64 tons/ha) compared to Gudena and the standard check. The standard check gave the least marketable yield of 1.09 tons/ha and Guassa was the next superior variety. Similarly, the farmers' perception data with regard to their food value showed that both of the new varieties are more preferable than the check variety. Farmers also explained that the new varieties have good tuber quality and diversified food value than the standard one. In general, the study revealed that growing these new varieties is good for maintaining food security and malnutrition. Hence, all the three improved potato varieties need to be promoted in similar highland areas of the region.

### **Biography**

Haileslasie Gebremedhn Etay has completed his bachelor's degree in 2006 in Dry Land Crop and Horticultural Science /Horticulture/ from Mekelle University, Ethiopia. He did his Masters degree in Mediterranean Agronomic Institute of Bari (CIHEAM-MAIB), Italy. Currently, he is senior expert of agro processing in Tigray office of agriculture and rural development, Ethiopia.

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