

High-Yielding and Acceptable Tugui (*Dioscorea esculenta*) Accessions for the Ilocos

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Abstract

Tugui (*Dioscorea esculenta*) is one of the more important species of yam and has been cultivated and used as subsistence food by rural folks since time immemorial. It thrives well in areas where the more important crops cannot be successfully grown and is considered as cash crop by the upland farmers in the Ilocos, being one of the few crops that can be grown in sloping and marginal areas that define their farmlands. However, productivity is limited to about 2.6 t ha⁻¹–3.3 t ha⁻¹ only, and one of the contributory factors of which is the absence of a recommended high-yielding variety.

To address this need, series of experiments were conducted with the hope of identifying promising accessions that could be recommended to farmers. After three years of evaluation both on-station and on-farm, six accessions (Accessions # 9, 3, 2, 1, 4, and 15) were identified promising, with mean yields ranging from 13.33 t ha⁻¹ - 14.54 t ha⁻¹, which is equivalent to an ROI of at least 1.63. These accessions are also highly acceptable to consumers.

With the promising accessions, planting of tugui can now become a more productive farming endeavor. With these, the marginal and/or idle lands can be made productive and be used to support the government's program on food security.

Keywords: *dioscorea esculenta, yam accessions, marginal*