

## **Agro-economic assessment Leren [*Calathea allouia* (Aubl.) Lindl] production in Trinidad and Tobago.**

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Leren or topi tambo is small edible tuber consumed as seasonal snack food in most Caribbean territories. However, it is not cultivated commercially except in Trinidad and Tobago, and Puerto Rico. This tuberous root contains 6.6% protein and 13 to 15% starch and has demonstrated good canning potential. The crop is cultivated with minimal inputs either as pure stand or intercropped. The yields are variable depending on soil type and husbandry, but the retail prices are always very high. During the period 2008 to 2010, several field and shade-house studies were conducted at the Waterloo Research Centre, University of Trinidad and Tobago on the effect of crop nutrition [0.4, 0.5, and 0.6 t.h<sup>-1</sup> of 13:13:20 (NPK)], crop density [27.5, and 20.8 tph<sup>-1</sup>], shade / full sunlight, and intercropping / pure stand, on the crop growth, development and yield. Crop cost-accounting for both these studies and farmers' production were conducted to determine net income. The results indicated that in the shade-house / pot trials, the crop produced the highest yield (9,800 kg.ha<sup>-1</sup>) under shade at the fertilizer rate of 0.5t.ha<sup>-1</sup> with tuber weight between 11 to 15g.tuber<sup>-1</sup>. In the field studies, a similar trend was observed under the intercropping system at the lower crop density for the 0.5t.ha<sup>-1</sup> fertilizer treatment, even though the yield was lower (5,500 kg.ha<sup>-1</sup>) than the shade-house trials. The economic analysis revealed that the net income varied between \$ 18,000 to 32,000 ha<sup>-1</sup> [USD], and that the benefit of an additional income can be derived from an equivalent 0.75ha of pigeon peas, over a 9 month period.

**Palabras Claves/Key Words:** leren, crop nutrition, intercropping, crop density, net-income