Economic assessment of production of flour from Prosopis alba and P. pallida pods for human food applications.

AUTORES:
Felker, P., Grados, N., Cruz, G., Prokopiuk, D.

RESUMEN:
This paper presents a detailed cost accounting of the processes involved in the production of flours from the mesocarps of the fruits of Prosopis alba and P. pallida to be used in human foods. The flours from both species are similar and contain 7-8% protein, 0.8-2% fat, 26-32% total dietary fiber and 48-59% sucrose. The data were based on actual production rates in use at the Universidad de Piura pilot plant using simple machinery. Machinery hourly charges were based on equivalent rental costs in order to avoid interest charge calculations. As opposed to other analyses which only included processing costs delivered to the plant, our analysis ascribed value to the owner of the trees in order to provide incentives to plant and care for the trees. The sensitivity analyses showed that the most economically important factor was the conversion efficiency of pods into flour. When a 40% conversion efficiency, such as that which has been obtained in both Peru and Argentina was obtained, and by-product credits for high fiber containing fraction were assumed, the wholesale selling price with a 5% marketing cost and a 40% profit direct costs was estimated to be $0.66 kg⁻¹ for Peru (using a $0.40 h⁻¹ labor rate ) and $1.76 kg⁻¹ for Argentina (using a $1.5 h⁻¹ labor rate).

Key words:
Agroforestry; Nitrogen-fixing trees; Protein; Sugar.