

## SUMMARY

### **Agroecological potencial and economic diagnosis of *Moringa oleifera* Lam.), as an alternative crop in the State of Veracruz**

*Moringa oleifera* tree cultivation has acquired great worldwide importance. It is due to its versatility and diverse uses like food, energetic, flocculant and medicine among others. In Mexico, it was introduced a few years ago; however, in Veracruz this plant is little known. So, the objective of this work was to analyze the current situation and transformation as a food source of *M. oleifera* in the central area of the state of Veracruz, and its viability as a profitable farming alternative. For this purpose, agroecological zones for its cultivation in the state of Veracruz were identified. In addition, an economic analysis for production and commercialization of *M. oleifera* as a food supplement for humans and a market analysis for sale of dehydrated leaves was developed. Results show that *M. oleifera* can be grown in the municipalities of Isla, Tierra Blanca, Ignacio de la Llave, Juan Rodríguez Clara, Tlalixcoyan and Santiago Tuxtla, three variables of importance for the development of the plant were identified: altitude, temperature and precipitation. In a study of case for the municipality of Tepatlaxco, Veracruz, it was found that the cost of production for planting one hectare of *M. oleifera* in dry farming was of \$18,210.00 and production of dehydrated milled leaf in one hectare requires an investment of \$49,768.00 with a base production of 560 kg per year and a breakeven point of 88 kg from which net profits of \$85,234.00 will be generated in the second year. For the marketing of capsules as a dietary supplement for mankind, the initial investment was calculated on \$65,074.00, for a production of 6000 bottles with a year income of \$360,000.00 with a price of \$60.00 per bottle. The cost of production buying the raw material was \$89,366.87, and producing the raw material was \$84,447.37, which mostrated a saving of \$4,919.5 when producing the leaf of *M. oleifera*. It reached a breakeven point of 2,427 bottles with a net profit for the first year of \$ 97,687.00 and for the second year of \$147,181.00. The market study showed a food supplement product of a wide variety of presentations, consumed by both men and women, between the ages of 30-40 years, with a middle socioeconomic level. The main cause of consumption was due to illness, mostly cholesterol, triglycerides and diabetes. In the zone there are several products coming from different states like Nuevo Leon and San Luis Potosí among others. The product was found in the region in prices ranging from \$ 80.00 to \$ 250.00 and marketed by different channels.

**Key words:** *Moringa oleifera*, agroecological zones, breakeven, nutritional supplement, market study