INTEGRATED ACTIONS FOR PARTICIPATORY INTRODUCTION OF ANDEAN ROOT YACON (*SMALLANTHUS SONCHIFOLIUS* POEP & ENDL) ON MOUNTAINOUS REGION IN ESPÍRITO SANTO STATE, BRAZIL

Angeletti, M da P[1], Costa, H[1], Souza, JL de[1], Pilon, LC[2], Costa, AF[1]

penhangeletti@incaper.es.gov.br

[1]*Instituto Capixaba de Pesquisa Assistência Técnica e Extensão Rural, Domingos Martins, Brazil*

[2]*Universidade Federal de Santa Maria, Santa Maria, Brazil*

An experience to introduce yacon (*Smallanthus sonchifolius* Poep. & Endl.) was made on a mountainous region in Espírito Santo State-Brazil, from demand of farmers interested with its medicinal attributes, as well as the potential for alternative sugar industry. Challenges like availability of seedlings, lack of expertise, non consumer culture and the sale of the production were overcome. A partnership was done to: identify Brazilian commercial producers, organise 45 farmers like a "pioneering productive group", adapt management references, collective buying of seedlings, technical monitoring, opening market, staggered harvest organisation. The plantings were done from April 2006 to July 2007, at an altitude above 900 metres, with 50 seedlings per farmer. The management practices adopted were: spacing in windrow (1,0 x 0,5 m in line and 0,3-0,4 m high), planting depth (0,05-0,07 m) and fertilization with chicken manure (amount 20 litres/line metre). In steep planting areas, mulching with materials available in the field (dry grass and corn straw) were used. The first harvest began seven months later, typical senescence was observed (flowering, yellowing and leaf drop). The yields ranged from 06 to 15 kg/plant, and the medium number of roots per plant was 10. An effort was made to standardise the production without the use of pesticides, however there was cultural resistance Farmers accustomed to conventional agriculture. Noted the following occurrences: common ant attack in roots; eventual attack of fungus (*Sclerotium rolfsii*) on yacon rhizophores after harvest and in storage; rot roots in wet areas.