

2006 TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY : Medicine and Health

PROJECT : In Tlaxcal Nopalli(Nopal Tortilla)

AWARDS : Environmental Third Award

**SCHOOL : Centro de Bachillerato Tecnológico industrial
de servicios No.59**

FINALISTS : Patricia Adriana Arriaga Marti

Irma Stephanie Martinez Solis

COUNTRY : Mexico

APPENDIX 2

ABSTRACT OF EXHIBIT TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY: Medicine & Health

TITLE: "IN TLAXCAL NOPALLI" (NOPAL TORTILLA)

NAME: Patricia Adriana Arriaga Martínez and Irma Stephanie Martínez Solís

COUNTRY: México

Objectives:

To contribute to the feeding of the popular sector using a product of the basic basket of consumption and in simultaneous form to operate a natural resource, that when being combined will derive in a rich product in nutrients. With this project we try to offer to the population an innovating product, based on a food of daily but added consumption with all the nutrients of the *nopal*, of this form will be a better nutrition in the *tortilla* consumers. In Mexico, like in some countries of Central America, the maize products, like the *tortilla*, are the base of the popular feeding, its consumption is related closely to the obtaining of energy, calcium, fiber, iron and zinc, which usually display deficit levels in the population of the region. The contributions of the *nopal* are diverse, because it counts with some different nutritional and medicinal properties.

Procedures:

In many parts of the country, specially in countryside, the elaboration of the *tortilla* of manual form continues being a daily activity, its procedure is called: *Nixtamal*. The maize is rinsed, slips, and is put to the fire with two liters of water and two spoonfuls of lime dissolved in water by each kilo of maize. It is warmed up until it boils, mixing with a bucket; the fervor must be slow and in the last minutes it is retired from fire, it is covered and it is let to rest from a day to another. The remaining liquid is retired (called *nejayote*) and it is rinsed the maize without rubbing it, once, twice or until the water leaves clean. To the maize in the bottom it is added a bit of water, giving to the origin to the mass. Once having the mass of the maize, it is necessary to add the *nopal*. Are required six clean *nopales* by each kilo of maize mass that is going to use; the *nopales* are liquefied and immediately it is necessary to strain them so that the fiber that will be used is contained in the strainer, once done this, it is added the fiber to the mass and they are mixed in such a way that it is left a homogenous product. To make *tortillas*: the necessary mass is taken, a small ball becomes that is placed in the center of the manual press, on a piece of transparent plastic of 20 x 20cm., puts another piece to him of equal plastic above, closes the cover of the press and it is pressed, naturally, whichever greater it is the exerted pressure, thinner will be left the *tortilla*. The *tortilla* is withdrawn from the plastic and with taken care of this one turns around on the open fingers. The *tortilla* extends on the hot *coma* and when it begins to inflate itself flattens a little with the hand. The *tortilla* turns around until it is gilded in some points in both sides, and it is placed in a basket.

Conclusions:

We chose a project in which our product is 100% natural one, defending our own natural resources and providing benefits to the daily feeding. The *tortilla* continues being a base product for the inhabitants from the urban zones to those more poor men of the country, and it supports an important way for the nutrition of the Mexicans.

評語

This work has high motivation in improving the nutrition of dairy. The results reveal potential for application and possess social impact.