

# Num. 1-2013 | ENGLISH VERSION

## 2013 International Year of Quinoa



Fotografía de la FAO

Quinoa, cultivated in the Andean countries (Ecuador among them), is a food of high nutritional value that can play an important role in eradicating hunger, malnutrition and poverty, FAO Director-General José Graziano da Silva said at the official launch of the International Year of Quinoa at UN Headquarters in New York.

Some authorities and officials in charge of the Congress that will be held in the University were present in the launch ceremony, which was a day-long series of events that celebrated the Andean “super food”, a highly nutritious, cereal-like crop that is rich in proteins and micronutrients, an effective ally against hunger and food insecurity.

Quinoa, by having the ability to adapt to different ecological environments, even extreme ones such as dry and high-salinity soils, and to diverse climates, makes it easy to be included in the garden of each Ecuadorian family, since it is an almost unique food with high content of vitamins, all the essential amino acids, and trace elements indispensable to life. The fast increase in population makes us face food insecurity. In order to overcome this, it is necessary to increase quality

foods production which will ensure quality of life for present and future generations. Quinoa is an alternative food source. Influence of Vitamin "C" in guinea pigs for fattening.

The research showed that supplying Vitamin "C" increases the animals weight; being this essential in the nutritional requirements. This could be made evident in the guinea pigs exposed to a 600 mg dosis of Vitamina "C" which was the most adequate and increased the animal weight in an average of 1187.50 g.

## **Ethno-botanical research, medicinal plants**



Fotografía: Mayra Pozo

The research carried out in Mojanda and Pucará on the utilization of plant species with medicinal properties reveals that their inhabitants know and utilize 101 species which belong to 46 botanical families. Among the most common uses, there are the treatment of stomach illnesses, respiratory, hepatic-kidney and mouth diseases, and local illnesses, among which the "evil eye", the "bad air" and the "frightening" are mentioned.

## **Water retainers in the initial behavior of Tare**



Laguna de San Pablo

This research is addressed to applying hydrogels that retain water, based on the hygroscopic capacity of water molecules, which helps plants in water's gradual and permanent abstraction. It is thus possible to carry out forestry plantations in low-precipitation places, in sectors with deplorable soil and climate characteristics.

## **Macro-invertebrates as Water-quality Indicators**



Artrópodo. Escorpión de agua  
Fotografía de Concepción  
Espinosa

Assessment of water quality in Yahuarcocha by utilizing water Macro-invertebrates as biological indicators, allowed us to determine the quality level at which water is. Most sensitivity areas were identified, according to species abundance and diversity, with which, a monitoring plan was

established and possible recovery and pollution-prevention measures were proposed.

## **From Ovo to vinegar**



Fotografía de Mario y Milton

Starting from the Ovo fruit (*Spondias purpurea* L), vinegar was obtained, produced in Ambuquí, Imbabura province, as a product of acetous fermentation of alcoholic beverages or the result of transformation of sugars into alcohol via acetous fermentation.

pH, acidity, alcohol content and density are similar to both basic INEN requirements and commercial vinegar in Spain.

## **Diet marmalade for diabetic people**

This research was carried out with the aim to give an option of process and formulation to prepare diet marmalade suitable for diabetic people, by utilizing a mixture of nopal cactus (*Opuntia ficus indica*) and strawberry (*Fragaria vesca* L.), since this would facilitate Ecuadorian agriculture industries to expand towards new market fields with innovative products that solve food problems in today's society.



Mermelada

## **Native species protecting water sources**

This research considered necessary to design and execute a Protection Plan of ten water sources by utilizing native species in Otavalo canton. With the decisive active participation of 5.080 people, it was possible to perform 11 “mingas” for reforestation; their timely and dedicated work was fundamental to surpass the goal of transplanting 40.000 to 82.000 native forestry seedlings, thus delivering a protected area of about 91 hectares.