



Natural Colored Potato Chips

Preserving ancestral
biodiversity creating new
patterns of consumption

Hundreds of native potato varieties exist in the Andean areas, many of which are endangered. The big challenge is to preserve this valuable diversity for the mutual benefit of producers, consumers and researchers. It is vital to gain access to specific markets so these potatoes will continue to be cultivated in their native zones.

As part of an effort to promote commercialization of endangered native potato varieties, the International Potato Center (CIP) is currently assisting the Aymara farmer community in the department of Huancavelica, Peru. Up until now CIP has identified 30 excellent native potato varieties that possess great frying capabilities. They are very attractive because of the natural colors of their flesh and skin and their peculiar shapes. Many of these varieties have not been grown in recent decades. Thanks to the CIP germplasm bank, which holds over 3,800 potato varieties, these potatoes can be grown once more in their original habitat, 3,500 meters above sea level.

Ancestral diversity

Very few plants can grow in temperatures that frequently drop below freezing, in areas with high solar radiation and intermittent droughts. One of these plants is potato. For thousands of years Andean peoples have generated a great diversity of native potatoes, obtaining different flavors, shapes and colors. Because of their culinary preferences, farmers have unconsciously selected varieties with low water and sugar contents, varieties that have excellent frying properties!



Illa pilpintu
Radiant Butterfly



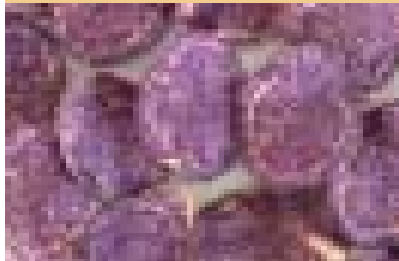
Inti kallpa
The Strength of the Sun



Puma chaqui
Puma Claw



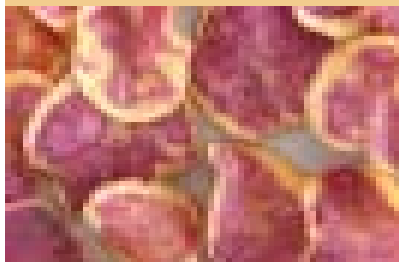
Munya tuta
Midnight Passion



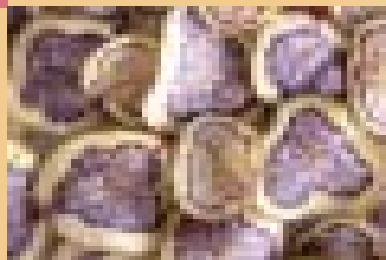
Paq'ariy t'ika
Morning Flower



Kusi sonq'o
Joyful Heart



Inka tipana
The Inca's Medallion



Sustainable income

Farmers in the high Andes come across very few market opportunities. Growing native potatoes for a constant market demand will afford them great economic relief. Generating farmers greater income than the one received from commercial potato varieties – their main source of income, at a lower risk. Also, conventional white potato varieties have lower yields at such high altitudes where there is higher risk of the effects of freezing temperatures. On the other hand, since market access is restricted, farmers often have to recur to distributors who, thanks to their bargaining powers, offer the farmers low prices for their products.

Healthy Food

Native potatoes are still grown using age-old methods that involve little or no use of pesticides. Some of the 30 varieties that possess good frying properties also have attractive nutritional characteristics: yellow-fleshed varieties are high in vitamin C content, while red and purple pigments contain anthocianines and flavonoids – elements possessing antioxidant properties.

As these native potatoes have low water contents, less energy is expended when fried. Native potato chips absorb up to 25 percent less oil than regular potato chips, which means fewer calories for consumers. And, because these potatoes are not peeled – the skin retains minerals, vitamins and fiber – consumers are also benefited by all their nutritional richness.

Promissory Future

Market research has indicated good sales possibilities for these potato chips in the domestic market as well as in the international market. A good marketing strategy is needed for the true value of these “forgotten potatoes” to be recognized, improving the current poor public image of potatoes, which are in fact a high value crop that are locally gradually being replaced by less nutritious and more expensive imported foods because they are more prestigious.

The International Potato Center is currently promoting cooperation between the Aymara farmer community and an interested processing company so that these potato chips will soon be introduced into the market. What a great moment it will be when shelves at various sales points offer this ancestral biodiversity benefiting both producers and consumers.



The CIP Vision

The International Potato Center (CIP) will contribute to reducing poverty and hunger; improving human health; developing resilient, sustainable rural and urban livelihood systems; and improving access to the benefits of new and appropriate knowledge and technologies. CIP, a World Center, will address these challenges by convening and conducting research and supporting partnerships on root and tuber crops and on natural resources management in mountain systems and other less-favored areas where CIP can contribute to the achievement of healthy and sustainable human development.
www.cipotato.org



CIP is a Future Harvest Center and receives its principal funding from a group of governments, private foundations, and international and regional organizations known as the Consultative Group on International Agricultural Research (CGIAR).

www.futureharvest.org • www.cgiar.org