

Since 2008, Le Cordon Bleu Peru has been promoting consumption of native potatoes with the publication of the book “La Papa: del antiguo Perú al mundo moderno”.

This preliminary study shows most of the biodiversity of native potatoes is situated above 3000 meters above sea level, but only 28.42% (3000/3500) and 16,9% (3500/4200) of the farmers that harvest at this altitude sell their crops to the market. (source: INEI)

Le Cordon Bleu Peru, Cite Papa, Aders Peru and Centro de la Imagen have joined efforts to promote consumption of native potatoes that have all year-round availability, which include Amarilla Tumbay, Peruanita, Huayro Rojo and the seasonal varieties like Huamantanga, Sumac Soncco, Queqorani, Leona, Wencos and Huayro Macho.

## 6. Trading margins in the value chain of CONPAPA – Ecuador

**Magali García<sup>1</sup>, Luis Montesdeoca<sup>2</sup>; Jaris Veneros<sup>3</sup>, Manuelito Castro<sup>1</sup>**

*1 Instituto de Investigación, Innovación y Desarrollo para el Sector Agrario y Agroindustrial de la Región Amazonas (IIDAA), Chachapoyas, Peru*

*2 Consorcio de Productores de Papa de la Región Central del Ecuador (CONPAPA), Ambato, Ecuador*

*3 Universidad Nacional Toribio Rodríguez de Mendoza (UNTRM), Facultad de Ingeniería Civil y Ambiental (FICIAM), Chachapoyas, Amazonas, Peru*

Corresponding author: Magali García, [20140685@lamolina.edu.pe](mailto:20140685@lamolina.edu.pe)

A value chain identifies the various links from production of a product until it reaches the final consumer with a view to seeking financial gain for all the actors. This research looked at the value chains for the commercial potato varieties, Superchola and YanaShuto, from the Consortium producers in Ecuador (CONPAPA). Values of net production margins, gross margins of commercialization and percentages of participation were used for the actors of each link in the chain. It turned out that there are three links in each value chain: partner - producer, the CONPAPA consortium and the national industry. Four value chains were identified. For the first (Yanashuto), the sale price of the producer remains constant throughout the year. In the other three (Superchola), there are two stable sale prices depending on two different times of year. The last link comprises poultry factories, agribusiness and fast food, at national level. They receive the 57.9% that represents the highest net trading margins, as in chain three. The participation rates for each Superchola variety producer, who come from the central area of Quero, vary from 28.5% to 50.0%, at the time of high sale price, representing the highest value in chain two. These percentages reveal the need to implement strategies in order to improve sale prices for producers throughout the year. The Consortium should do so with all the chains.

## 7. Improved potato varieties in the Center of Origin (Peru): adoption determinants and impacts

**Willy Pradel<sup>1</sup>, Victor Suarez<sup>1</sup>, Guy Hareau<sup>1</sup>, Luis Enrique Quintanilla Chacon<sup>2</sup>, Catherine Larochelle<sup>3</sup>, Catherine O'Donnell<sup>3</sup> and Jeffrey Alwang<sup>3</sup>**

*1 International Potato Center (CIP), Lima, Peru*

*2 Instituto Nacional de Innovación Agraria (INIA), Lima, Peru*

*3 Virginia Tech, USA*

Corresponding author: Willy Pradel, [w.pradel@cgiar.org](mailto:w.pradel@cgiar.org)

The International Potato Center and Peruvian partners have invested a substantial amount of resources towards the development of improved potato varieties. A household survey conducted in 2013 by

CIP described the diffusion of improved potato varieties in Peru, identifying specific constraints to adoption, and assessing the economic impact of adoption. Results showed that around 60% of the potato area in Peru is planted to improved varieties. Adoption is region specific, time dependent, and relies on informal transmission methods. Yungay, an improved variety released in 1971, is the most adopted variety covering 22% of the potato area in Peru (around 60,000ha). Canchan (1990) and Amarilis (1993), varieties both released as a result of joint efforts between INIA-Peru and CIP, cover 12% and 11% of the potato area respectively. The study finds that adoption of improved varieties is influenced by market access; and information via markets increases the probability of adoption, further helping the diffusion of improved varieties to market oriented farmers. Besides information constraints, household head age, wealth, and social networks were found to affect decisions to adopt and disadopt improved varieties. The impact study indicates that farmers growing improved modern varieties have benefited from increased yields (around 1 t/ha) and market a larger share of their output, earning higher incomes than their comparable neighbors (around 490 US dollars per household per cropping season). Other varieties which are expected to replace the existing ones are UNICA and Serranita. However, seed market and demand will play a significant role in their promotion.

## Technical session C: Potato Variety Development and Biotechnology

---

### 1. Potato varietal evaluation and release of nutrient-dense potato variety in Bhutan

**Yadunath Bajgai<sup>1</sup>, Tshering Dochen<sup>1</sup>, Pema Wangchuk<sup>1</sup>, Mohinder Kadian<sup>2</sup>, Thomas Zum Felde<sup>3</sup>, Lobzang Lobzang<sup>1</sup>, Mathelde Lefebvre<sup>4</sup>, Sushma Arya<sup>2</sup>, Sangay Sangay<sup>1</sup> and Namgay Wangd<sup>5</sup>**

<sup>1</sup> National Potato Program, Department of Agriculture, Ministry of Agriculture and Forest, Yusipang, Thimphu, Butham

<sup>2</sup> South, West and Central Asia (SWCA), International Potato Centre (CIP) Regional Office, New Delhi, India

<sup>3</sup> International Potato Center (CIP), Lima, Peru

<sup>4</sup> FAO/CIP Consultant

<sup>5</sup> RNR-Research and Development Sub-Centre, Khangma, Department of Agriculture, Ministry of Agriculture and Forest, Butham

Corresponding author: Yadunath Bajgai, [ybajgai@gmail.com](mailto:ybajgai@gmail.com)

Potato (*Solanum tuberosum* L.) is one of the most widely produced, consumed and traded horticultural crops in Bhutan. Hence, potato cultivation has picked up fast and has transformed the Bhutanese agriculture from subsistence to an emerging market-oriented economy. However, productivity of potato in Bhutan has stagnated over the last decade due to lack of diversity of varieties and degeneration of potato seed quality. Therefore, variety development research was carried out to increase yield and diversity of varieties, and to provide alternative varieties for the growers. The advanced evaluation trial using a mother and baby approach was conducted using suitable CIP-originated potato clones of 399053.11, 394034.7, 394611.112, 396034.268, 397196.3, 392797.22 and 303381.30 and Desiree as the local check (control) at Bumthang and Khangma in 2015. When the clones were assessed against yield and preference ranking, 397193.3 and 392797.22 clones outstood as high yielders and the preferred varieties, and 394034.7 was the least yielder and least preferred clone in Bumthang. The two clones (397193.3 and 392797.22) were significantly ( $P < 0.05$ ) high yielders and preferred to