**Q&A World Potato Congress**

**Who are we?**

The International Potato Center (CIP) is an agricultural research for development institution working with Peru’s most emblematic crop - potato (along with sweetpotato) to achieve sustainable agricultural development and food security. CIP articulates initiatives with partners and other organizations who collaborate with them to reach these strategic goals.

**Why focus on potato?**

Potato plays a fundamental role in our country, with approximately 10% of the population depending economically on the crop. Consumption is high (on average 85 kg per capita each year). We need to enhance the crop’s competitiveness, in order to increase production and consumption, and to highlight and reaffirm the value of the crop’s biodiversity (native varieties). Potato is also a staple of the daily diet, making it an ideal vehicle to combat the malnutrition that afflicts Peru. It’s worth noting that in addition to potato, we also work on the conservation and use of other crops such as sweetpotato, and the Andean roots and tubers: achira, ahipa, arracacha, maca, mashua, mauka, oca, ulluco and yacon.

**How does CIP work with potato?**

We work on conservation of biodiversity, crop improvement, and the development of new technologies for sustainable agriculture. We do this through innovative research and development projects for potato improvement (nutrition, varieties, productivity), as well as focusing on integral management of the crop. We provide scientific solutions so that the sector can be efficient and competitive, complying with the standards that allow it to meet external demand, as well as consolidating the position of the crop internally.

**How do we conserve potato varieties?**

Since 1971, CIP has been the custodian of a global potato collection, conserved and studied in its genebank. To date the collection holds 4,954 cultivated potato accessions, including traditional and improved varieties, as well as potato wild relatives (2,338) and current breeding lines (3,683). The secure conservation of these genetic resources is carried out both in the field, and through applied in-vitro and cryopreservation techniques.

**What results has the genebank had?**

Over the last 10 years, CIP’s genebank has distributed 4,185 unique potato varieties, delivered to Peruvian institutions or farmers and sent to researchers in 56 developing countries and 14 developed countries. The genebank’s scientists also carry out participatory research with farmers in the Andean highlands of Huancavelica and Cuzco to select and study promising native cultivars for confronting climate change; at the same time providing farmers with clean seed, free of disease, allowing them to re-establish their fields and increase productivity.

**How does CIP support farmers?**

CIP develops and promotes a range of technologies needed to help small producers improve their potato and sweetpotato production. This includes technologies for seed management, disease and pest control, soil and water management. It also includes the development of strategies to promote the consumption, utilization and value chains of crops. Projects aim to improve nutrition for consumers as well as income for producers, especially women and young people. We also carry out specialized training programs in production areas.

**How is climate change affecting crops?**

The increasingly frequent occurrence of extreme weather events such as floods, drought, frosts, and rising temperatures leading to an increase in pests and diseases, have alerted us to the very real presence of climate change. For example, in some high Andean areas of Cusco, farmers are having to plant their potatoes at higher altitudes because of rising temperatures. In the not so distant future there is a risk that farmers will not be able to produce sufficient food in these areas.

**What is CIP doing about it?**

At CIP we have the know-how to protect Andean crops from climate change and safe guard food security. Our projects contribute to conservation and adaptation in the Andes (home of the potato) and the region’s biodiversity, as well as in the Amazon. New varieties are developed with tolerance to pests and drought, heat and salinity. In addition, we diversify production by developing the most sustainable Andean food systems. We also work on the cultivation of sweetpotato in different regions. We create access for farmers to good practices (identified, adapted and disseminated) in climate-smart food systems, and to innovations for the differentiated links to both local and international markets.

**How is CIP fighting malnutrition?**

CIP’s breeding program has developed new biofortified potato clones with higher iron and zinc contents. Evaluation of the initial materials produced has already been carried out in collaboration with strategic partners, and we currently have a group of advanced clones with around a 50 percent higher iron and zinc content. Both are essential micronutrients for combatting anemia and malnutrition currently affecting the poorest communities based around potato production and consumption systems in our country. This is in addition to our work with orange-fleshed sweetpotato, (high in vitamin A content) which is having great success in Africa.

**How are we supporting farmers to be more competitive?**

Together with public and private partners, CIP developed the Participatory Market Chain Approach (PMCA). The approach has been applied to achieve commercial successes with innovative new products on the market such as native chips for export, vodka, anti-wrinkle creams, etc., and realized institutional (competitiveness) and technological (demand) advances. This work has been recognized by the World Bank as a successful example of inclusive value chains since small farmers in the Peruvian highlands have benefited significantly from the initiatives, obtaining higher prices for the sale of their potatoes.

**Why is it important that this World Potato Congress is here in Peru?**

The designation of Peru as venue for the 10th World Potato Congress, is proof of the dynamism that the sector has achieved, allowing us to compete with countries with a long tradition of development, innovation and market opportunities for the potato. We are bringing the event to Latin America for the first time in 30 years, and we believe it presents a great opportunity for both CIP and other local institutions to demonstrate their experience in the sustainable use of potato biodiversity. It’s also a forum to exchange experiences with other countries, to discover new opportunities for innovation and business, and to link international scientific development with Peruvian researchers.

**Does CIP also provide services to private companies?**

CIP's vast research experience with potato, sweetpotato and Andean roots and tubers, allows us to offer a wealth of knowledge, skills and technology, to meet the research, development and innovation (RD&I) needs of the scientific and business communities working in agriculture. Likewise, we are one of the institutions accredited by CONCYTEC to offer information and technical expertise in plant breeding and plant protection to organizations and companies in the agricultural sector within the framework of Law 30309, which offers tax benefits to companies who want to invest in this field.

**Have we had any experience with private companies under Law 30309?**

In 2016, HORTUS and CIP formed a strategic alliance to carry out research projects aimed at increasing the efficiency and effectiveness of the innovation curve, and investment in the development of new products for the potato sector. The information generated by CIP will help HORTUS in making strategic business decisions around these products, as well as in any future actions that the company needs to take regarding new product launches.

**Has CIP genetically modified Andean potatoes?**

We have not worked on genetic modification of potato in the Andes. A moratorium is currently in place for the release of genetically modified (GM) crops in the Andes, and CIP fully respects that moratorium; as indeed we comply with the laws and regulations in all the countries in the world where we operate. We cooperate with national partners on the breeding and release of varieties using conventional methods.

**Is it true that years ago CIP experienced instances of genetic piracy?**

CIP is governed by the highest standards, and complies firmly with international conventions on genetic resources and the corresponding laws and regulations in all the countries where we operate, especially in Peru. All material distributed from the genebank is done so respecting regulations and under specific agreement for the transfer of materials solely for research purposes.

**Is CIP in favor of measures such as the purchasing of surplus potatoes?**

CIP is a scientific institution that seeks to articulate initiatives contributing to the development of the country’s potato sector, and to provide technical solutions for that sector. Measures that may be taken by the government or other agencies fall outside our purview. What we can say is that it is necessary to generate the information needed to effectively plan sowing and harvesting dates, also to plant in different ecological floors to minimize risk of losses, to have alternative innovations for the control of new pests and diseases, and to disseminate climate, technology and market information.

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