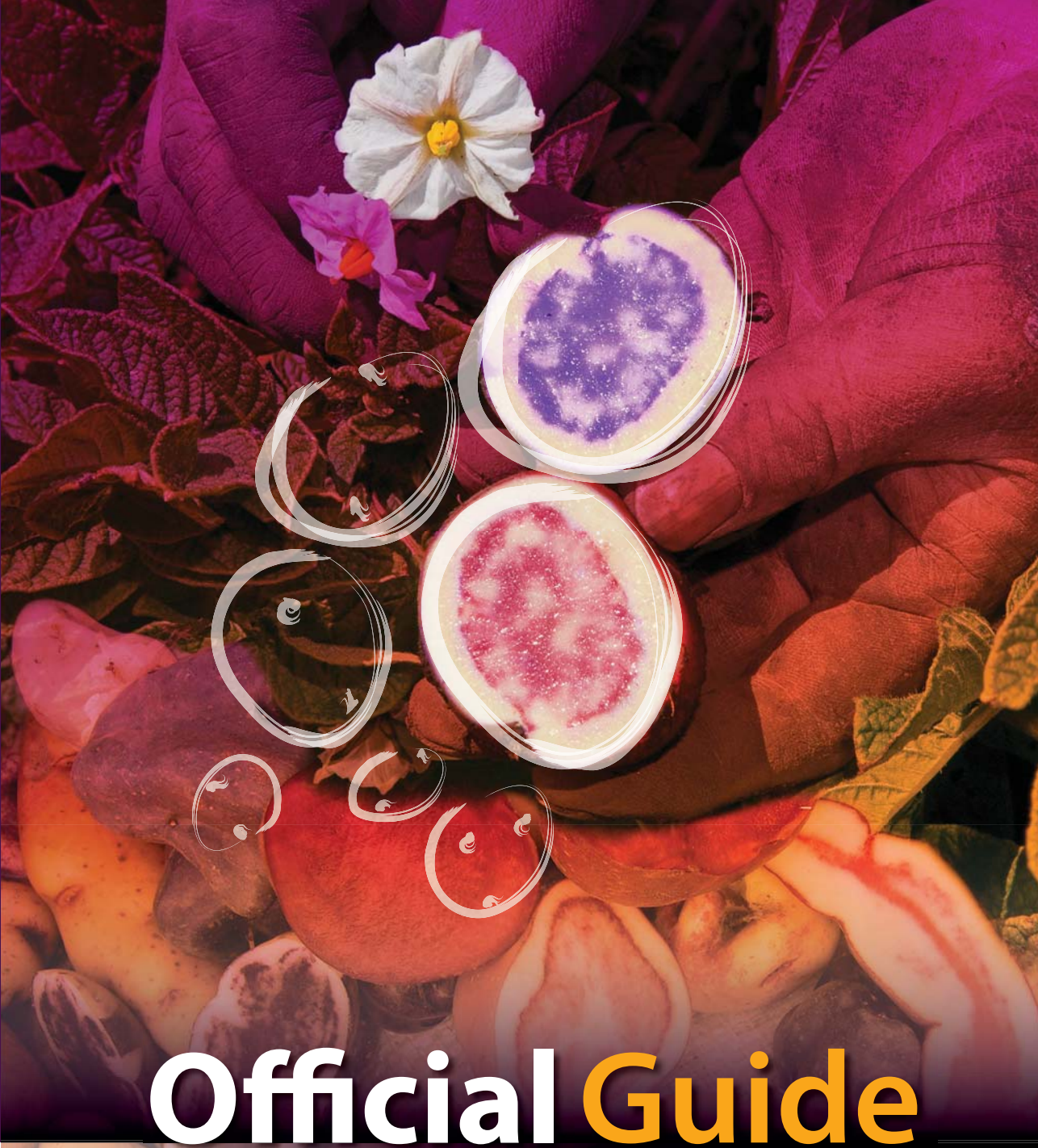

Official Guide

CUSCO - PERU | MAY 27 - 31, 2018

www.worldpotatocongress2018-alap.org

10th World Potato Congress

XXVIII CONGRESO DE LA ASOCIACIÓN LATINOAMERICANA DE LA PAPA

BIODIVERSITY, FOOD SECURITY, AND BUSINESS

We are present in..

10th World Potato Congress
CUSCO-PERÚ | 27 - 31 MAYO 2018
XXVIII CONGRESO DE LA ASOCIACIÓN LATINOAMERICANA DE LA PAPA
BIODIVERSIDAD, SEGURIDAD ALIMENTARIA Y NEGOCIOS

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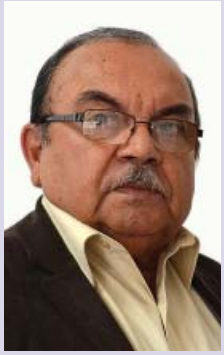
Need help or advice?

Throughout the Congress, our registration desk will be located in Gallery 2 at the entrance of the Convention Center. This is the best place to get any help or advice concerning the Congress or your stay in Cusco, Peru.

Greetings



Welcome
From National Institute of Agricultural Innovation

It is my pleasure to welcome you all to the 10th WPC and XXVIII ALAP congress, organized by the National Institute of Agricultural Innovation – INIA, of Peru, in collaboration with the International Potato Center – CIP. Let me first remark that this is the first WPC held in Latin America, and more than that, in Cusco, "navel of the world", as it was known the capital of the Inca Empire, by the native Peruvians. Cusco is the gateway to the Sacred Valley of the Incas, and the place where both the Inca and the Spanish cultures merged to create a unique city. I cordially invite all of you to enjoy the magnificence of Cusco, and admire its rich and astonishing heritage sharing at the same time the warmth of its people.

Potato was domesticated thousands years ago by our people living in the highlands of the Andes to become a staple food for them and for millions of people in the world. The enormous ecological niches characteristic of the Andes mountains gave rise to a huge types of potatoes in shapes, skin and flesh colors, flavor, texture, etc. This genetic variability still remains in their fields, in elevations that reaches the skies, and it is guarded by them. Potato has a cultural and religious meaning for Andean highlanders and is related to their religious festivities paying tribute to the Pachamama, "the mother earth" and to their Apus, the sacred mountains.

In this congress we are expecting to host delegates from more than 50 countries, who will have the opportunity to share scientific knowledge and personal experiences in all aspects related to potato as a crop, as food, and as an industrial supply. Also, in the field days, participants will be expose to a great part of the genetic diversity that potato represents, much of it never been shown together as you will have the chance to see it.

May this occasion serve to express my deepest gratitude to the Ministry of Agriculture of Peru, Ing. Gustavo Mostajo, representing the willingness and commitment of our government to full support this congress. Also my appreciation to the Organizing Committee in the persons of Ing. Jesus Caldas and Dra. Rosa Sanchez from INIA, Dra. Amalia Perochena and Dr. Miguel Ordinola from CIP, and all the team involved, for the excellent job to having the best congress ever.

I wish you a very productive week and a nice and pleasant staying in Cusco.

Sincerely,

Miguel Barandiarán
Head of the National Institute of Agricultural Innovation
and Chair of the Organization Committee of
10th World Potato Congress and XXVIII ALAP Congress

Welcome
From World Potato Congress Inc.

It is a real pleasure to welcome all delegates in Cuzco for the 10th World Potato Congress.

I am confident you will benefit from your decision to join this unique networking opportunity of the global potato value chain. Nearly 700 participants from 50 countries will embrace the themes "biodiversity, food security and business". With the rich gene database resulting from the more than 3.800 native potato varieties grown in Peru, the link between the three congress themes becomes obvious.

The proposed program offers top rated speakers from within the different angles of the international potato value chain. On top numerous social occasions and tours will offer you the opportunity for individual contacts enabling us to enlarge our global network.

Peru, as the birthplace of the domesticated potato and Cuzco, as the capital of the Inca Empire offer a wonderful venue to host this congress. On top the proximity of Machu Picchu, a UNESCO World Heritage Site and one of the New Seven Wonders of the World, offers the delegates a unique perspective of Peruvian history and cultural experience. You will surely also be able to enjoy the internationally renowned Peruvian cuisine.

On behalf of the Directors and International advisors of World Potato Congress Inc. I wish to express appreciation to the host organizers INIA, CIP, FAO, National Agrarian University - La Molina and PromPeru and the entire WPC-team for their efforts in presenting an outstanding congress. The relationship between WPC Inc. and our hosts has been most pleasant and constructive.

In closing I invite you to indulge in Cuzco, embrace Peru and its people, and appreciate your conversations with delegates from all over the world, in order to return home with warm memories of a superb week in Peru.

Sincerely,

Romain Cools
President, World Potato Congress Inc.

Welcome

From Latin American Potato Association

On behalf of the Latin American Potato Association (ALAP), I warmly welcome the participants and guests to this first time where the XXVIII Latin American Potato Association (ALAP) Congress and the 10th World Potato Congress (WPC) come together in the historic city of Cusco, Peru. The main subject of the congress, "Biodiversity, Food security, and Business", are also of the utmost relevance for the ALAP especially now when the potato crop and their specialists must help to face the worldwide population increase, the climate change and more demanding market.

One way that ALAP wants to help to resolve these problems is to stimulate the production and efficient use of potatoes, as well as increase and disseminate the knowledge we have of this crop through the development of research and dissemination of technical and scientific advances achieved in the regional and global context. All these actions are aimed to awake the interest for this crop in people, with the certainty of achieving greater well-being in the communities that grow potatoes and in the people who consume it in all its forms.

I am sure that the scientific and business program of the Congress will be in great demand and will consolidate the integration of international expert community and support the formation of new networks or strengthen existing ones.

Let me finally wish all participants a successful congress and fruitful discussion.

Sincerely,

Elisa Salas Murrugarra

President, Latin American Potato Association

Welcome
From International Potato Center

¡BIENVENIDOS A PERÚ! - Welcome to Peru! We are delighted to host delegates from all over the world to the cradle of the cultivated potato, Peru, and look forward to the discussions and meetings to be held in Cusco, and in addition, to proudly celebrate with our friends and to renew our commitment to the continuous advancement of the potato in the modern world.

Peru, literally, runs on potatoes, and indeed its current per capita consumption reaches 90 kg/year, and about 10% of Peru's population rely on potato to fulfill their nutritional needs. So much scientific progress has occurred since we met in China three years ago! If I had to single out just one, I would highlight the progress towards developing hybrid potato cultivars achieved by private companies, universities and CIP. This breakthrough is beyond the proof of concept stage and now needs to be scaled up and delivered to farmers.

Some challenges remain, for instance the development of novel seed systems enabling the transition to potato hybrid variety cultivation. Regardless, our final goal is much bigger than the science or technology that is applied: it is improving the quality of life of potato-growing smallholders and their families. Without your support and encouragement, we would not be able to attain such a noble goal.

In Peru, CIP and its partners have analyzed the nutritional content of an array of native potatoes from several Andean countries and identified 200 varieties with high zinc and iron content. We have subsequently promoted some of those varieties to smallholders while providing agronomic training and nutrition education. It's just one part of CIP's mission to improve the food security, nutrition and incomes of smallholder farmers here in Peru, and around the world. WPC participants will learn about such initiatives during the plenary presentations about potato biodiversity, food security and business during the three days that the WPC 2018 will be held in Cusco.

Forward looking, at CIP we will continue conserving potato biodiversity for the future of Peru and the world, developing the technologies that will allow to further increase productivity with smart and efficient use of natural resources, manage existing and new pests with environmentally friendly solutions, and improve resilience in front of climate change challenges, establishing the partnerships and working close to smallholder farmers in Peru and around the world to better anticipate and understand their needs.

We look forward to share potato research with all the potato community that will visit Cusco in May. Please enjoy Peru, make new friends and join us in the challenge to continue to expand the value that potatoes can deliver to our world and beyond.

Barbara H. Wells
Director General, International Potato Center

BASF
We create chemistry

Creating together solutions for sustainable agriculture

By understanding the needs of the potato value chain we jointly develop innovative solutions for sustainable potato production. We help to improve the yield and safeguard the quality of the harvest through promotion of good agricultural practice and new product solutions. We work with farmers and partners to meet the sustainability requirements of the value chain, now and in the long term.

Please visit our stand to learn more about our programs.

Conchucos, in Ancash, the new seedbed of potatoes in the Peruvian andes.

In Juprog and Santa Cruz de Pichíu, the community has managed to reinsert 30 potato varieties that have not been planted in three decades

www.antamina.com

Congress Program

Congress Overview

Welcome to this unique experience of the worldwide potato sector. For the first time, the World Potato Congress (WPC) takes place in Latin America along with the XXVIII Congress of the Latin American Potato Association (ALAP). The encounter of these two worlds of the potato will provide opportunities for the WPC general participants to meet associates from across the LAC region. Therefore, the Congress has been designed to unveil the latest trends and initiatives of the international potato experts; to meet new costumers from every part of the potato industry as well as meet colleagues from every continent; to increase the participant´s network of the potato sector, and of course, to give all participants the opportunity to experience the crop's biodiversity and cultural significance.
Welcome again to Peru, home to about 3,000 of the more than 4,000 world potato varieties, and welcome to Cusco, one of the regions with the greatest potato biodiversity in the country.

WPC-ALAP 2018 Congress Format has been divided into 4 components:

- Scientific and Business Program (see page 22)
- Field Day (see page 13)
- Commercial Exhibition (see page 16)
- Social Events (see page 19)

And on top of that, there is a Partner Program that has been specially prepared for people accompanying congress participants as well as Tourism Options.

Scientific and Business Program

This Scientific and Business Program edition of the Congress is a mixture of plenary and theme based parallel sessions, including technical sessions and workshops. Parallel sessions will have different presentations given by different speakers, all related to the main theme of the Congress: "A look to the future of the Potato: Biodiversity, Food Security and Business". The participants may choose which of the parallel sessions they would like to attend. There is no need to pre-book a place at any plenary, technical session or workshop. It is as simple as choosing the one that appeals you the most.
The world center of potato biodiversity is found in the Andes where for thousands of years, small farmers have preserved a multiplicity of potato varieties that are their source of supply and now,

an important source of income. In the course of this Congress, the participants will explore this resource in its natural state and be shown its potential to be articulated with markets around the world. Based on these three thematic areas: Biodiversity, Food Security and Business, the Congress will present the following themes:

Plenary Sessions
Plenary Theme 1: The Potato Global Approach
Plenary Theme 2: Climate Change / Varietal Development & Biotechnology
Plenary Theme 3: Global Approach / Peru and its Biodiversity
Plenary Theme 4: Summary and Strategies for Moving the Potato Forward

Technical Sessions:
TS "A": Climate Change and Potato Agri-food Systems
TS "B": Trends in Potato Consumption and Markets
TS "C": Potato Variety Development and Biotechnology
TS "D": Potato Pest and Diseases
TS "E": Potato Crop Management
TS "F": Post harvest & Processing Technology
TS "G": Potato Biodiversity and its use in Breeding, Nutrition and Health

Workshops:
Late Blight Global Challenge
In-situ Conservation Challenges
Value Chain for Small Farmers and Culinary Innovations

Sunday	Monday	Tuesday	Wednesday	Thursday
Registration 15.10 – 18.30	Scientific & Business Program 08.40 – 18.40	Scientific & Business Program 08.20 – 19.20	Scientific & Business Program 08.20 – 11.10	Field Day 06.00 – 18.00
Welcome Cocktail 19.30 – 22.00	Commercial Exhibition 08.00 – 17.20	Commercial Exhibition 08.00 – 17.20	Commercial Exhibition 08.00 – 17.20	
		Closing Cocktail 20.00 – 22.00	National Potato Day	
			ALAP Round Tables 14.50 – 17.20	
			ALAP Members' Assembly* 17.20 – 20.00	

Scientific & Business Program:
Monday-Tuesday: Plenaries, Technical Sessions & Poster Sessions
Wednesday: Workshops

Round table I: Evaluation of potential commercialization and industrialization of potatoes in Latin America
Round table II: Regional self-tuber seed supply in Latin America
Parallel round tables, organized by ALAP

* Entrance just for ALAP Members

The detailed program of the Scientific and Business Program may be found in page 22.

ANDENES EXPERIMENTAL STATION - NATIONAL INSTITUTE FOR AGRICULTURAL INNOVATION (INIA)

Field Day

Andenes Experimental Station - National Institute of Agricultural Innovation:

The Andenes Experimental Station is located in the district of Zurite in the Anta Province in Cusco, and has an extension of 50 ha. Andenes is currently one of the National Institute of Agricultural Innovation´s 14 experimental stations. Andenes has 33 terraces starting from 3350 masl up to 3480 masl. The terraces allow conductiong research in several crops such as potatoes, quinoa, corn, kiwicha, barley, grasses, forages, Andean root and tuber crops, medicinal plants, among others. The research lines include genetic breeding, seed production, genetic resources conservation, among others. Moreover, as a result of the research conducted in Andenes, several new potato varieties have been found as Chaska, Valicha, Kori-INIA, Pallay Poncho, Puca Lliclla and Anteñita.

Greenhouses

1. Efficient Growth Systems: Hydroponics, Areoponics, Water Stress and Conventional
2. Diversity in Potato Wild Relatives in the Solanum Section Petota
3. National Register of Native Potatoes

Technologies

4. Precision Agriculture
5. Genotyping of *P. infestans* using FTA cards
6. Molecular Diagnosis in Field Conditions

Biodiversity

7. Diversity of native potatoes
8. Conservationist farmers

Health and Nutrition

9. Biofortification: Developing Potatoes with High Iron and Zinc Concentration
10. Developing Potatoes with High Content of Functionals and Anthocynins

Climate Change and Crop Protection

11. New Potato Varieties with Resistance to Late Blight and Heat Tolerance
12. Participatory Potato Varietal Selection Using the Mother & Baby Method to Obtain New Potato Varieties with Late Blight Resistance and Adaptation to Climate Change
13. Selection of Clones for Resistance to Frost
14. New Potato Varieties with Resistance and/or Tolerance to Biotic and Abiotic Factors
15. A Simple, Hand-held Decision Support System to Manage Potato Late Blight by Andean Farmers

Seeds

16. Effect of Different Seed Categories on Yield and Tuber Quality
17. Mixed-crop Systems: Andean Crops Related to Potatoes
18. Prebasic Seed Production Module of High Quality Seed by Huasahuasi Farmers

The greenhouses and the plots are lead by CIP and INIA.

Andenes Schedule

06:00 – 07:00	Departure
07:30 – 08:00	Arrive in Andenes
08:00 – 08:30	Greetings by hosts
08:30 –14:00	Visit greenhouses, plots with experiments and business
14:00 – 16:00	Lunch
16:30 – 18:00	Return to Cusco

We recommend wearing comfortable shoes (trekking shoes), dressing in layers (not only with a warm jacket but waterproof) because in the sacred valley of Cusco, the sun at noon can be very strong.


SUB BLOQ. C/Y

Potato Park: Located at about an hour and a half away from Cusco, this community initiative of potato conservation and sustainable usage brings together six Quechua communities in Pisaq, who have unified their community lands to celebrate the diversity of the Andean potato in its center of domestication. Quechua farmers in the communities of Amaru, Chawaytire, Cuyo Grande, Pampallaqta, Paru Paru and Sacaca cultivate around 1400 varieties of native potato in a area that covers more than 9000 hectares. This visit seeks to share the communities´ experiences and learnings at the conservation in-situ and the development of the native Andean potato; the dissemination of knowledge, information and evidence; governance of genetic, biological and cultural diversity associated to the Andean potato; and the contributions of this model to sustainable development. The visit will take place in 5 different communities based on 4 main themes: (i) Andean potato origins and ecology; (ii) Potato genetic diversity; (iii) Local usage, benefits and livelihood; and (iv) Participatory research and knowledge management. Four sites have been chosen to represent each one of the topics, where work is ongoing in collaboration with the International Potato Center (CIP), the National Institute of Agricultural Innovation (INIA) and Oxfam-Novib (Holland).

Potato Park Schedule

06:30 hrs.	Departure
09:00 – 13:00 hrs.	**Visit 1:** Place: The viewpoint of the Amaru community Theme: The Andean potato as a biocultural heritage.
	Place: Azul Cocha, Paru-Paru community Theme: Andean potato origins and ecology.
	Place: Seed multiplication center, Paru-Paru community Theme: Traditional biotechnology and nutrition.
13:00 hrs.	Lunch
14:00 –17:00 hrs.	**Visit 2:** Place: Pampallakta community Theme: Management of potato genetic diversity.
	Place: Sacaca community Theme: Local usage, benefits and livelihood.
17:00 hrs.	Return to Cusco

Each group will visit two sites in the morning and two sites in the afternoon. During each visit, groups will be able to exchange experiences and knowledge with local residents.
At lunchtime, the four groups will meet up in the communiity of Chawaytire at "Papamanka", a restaurant dedicated to the Andean potato for a traditional celebration lunch. The Potato Park´s women´s gastronomy group, who run the "Papamanka" restaurant will be prepared the signature dish. Enjoy!

Commercial Exhibition

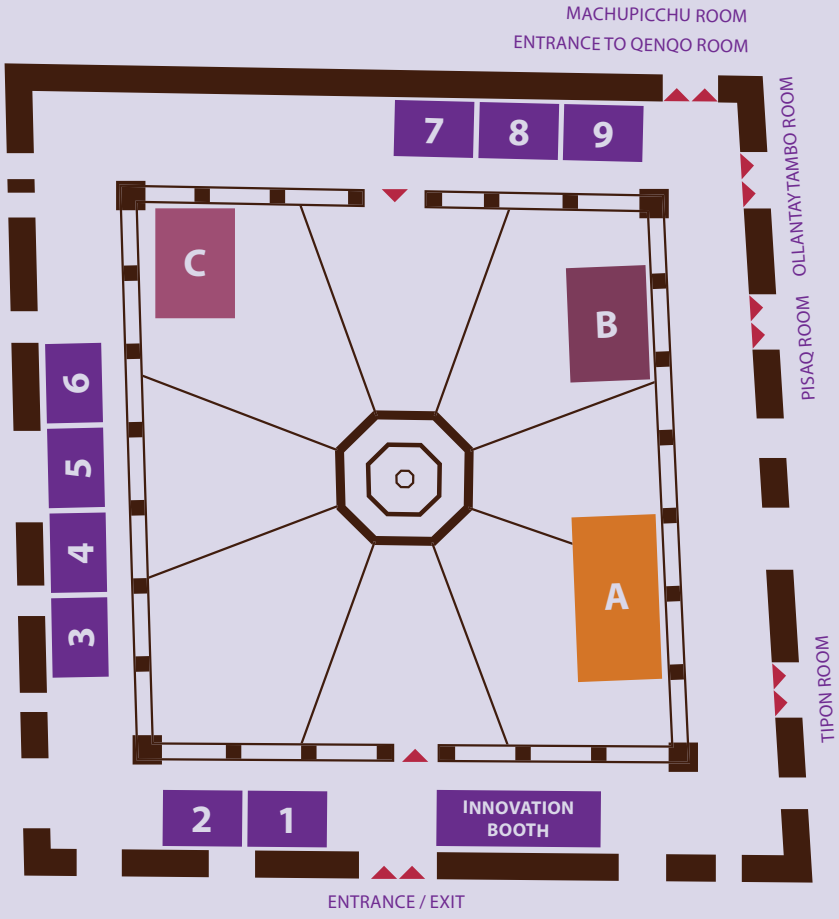
The Commercial Exhibition opening hours are will be open as follows:

Monday & Tuesday: 08.00 – 17.20 hrs. • Wednesday: 08.00 – 11.20 hrs.

There are two locations:
The central courtyard of the Convention Center and the Qenqo Room.
Coffee Breaks will be offered in both locations.

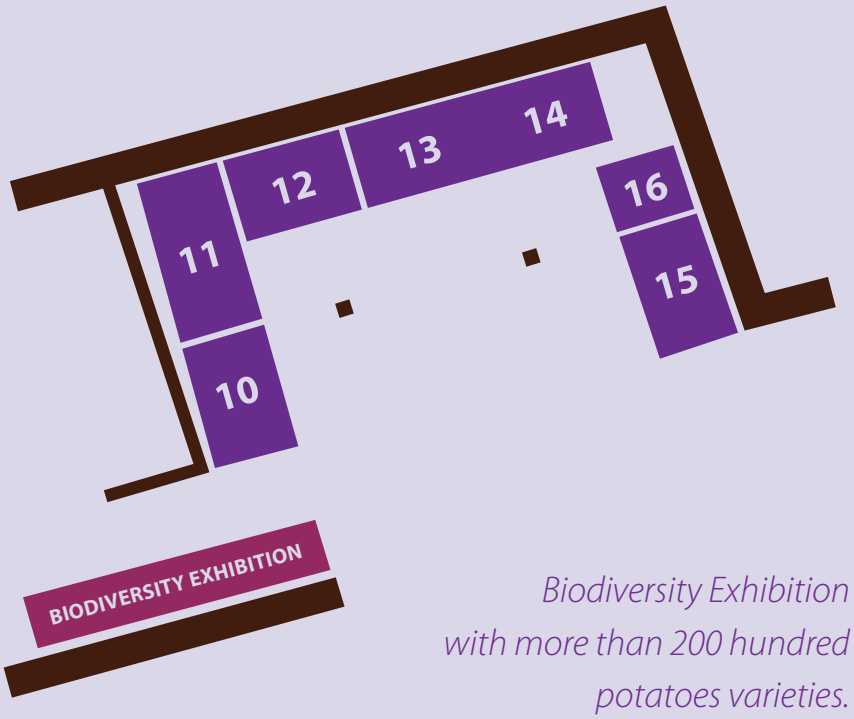
Don't miss the opportunity to get a look at the Peruvian potato biodiversity! Look for it at the Qenqo Room!

Central Courtyard of the Convention Center



A	HORTUS	2	BIOFLORA	6	SOLANA GMBH & CO KG
B	BASF	3	MOOIJ	7	TOMRA SORTING SOLUTIONS
C	YARA PERÚ	4	BTU VENTILATION	8	SQM VITAS
1	FARMEX	5	PEPSICO	9	GRIMME LANDMASCHINENFABRIK GMBH

Qenqo Room



Biodiversity Exhibition with more than 200 hundred potatoes varieties.

10	NATIONAL INSTITUTE OF AGRICULTURAL INNOVATION	13	INTERNATIONAL POTATO CENTER		
11	BÉLGICA CONTIGO	14	INTERNATIONAL POTATO CENTER		
12	PAPAS CONTIGO	15	ANTAMINA	16	AVR

Social Events

Social events have been created as a space for participants to establish and strengthen their professional and business relationships during the Congress. In addition, we chose two places that highlight the Inca and colonial culture to perform two of these events:

Welcome Cocktail at Qoricancha Temple

Sunday, May 27th

Time: 19.30 – 22.00

Address: Ahuacpinta Street 659-A, Cusco

Dress code: Smart Casual

Closing Cocktail at San Francisco Convent*

Tuesday, May 29th

Time: 20.00 – 22.00

Address: Plaza San Francisco, Cusco

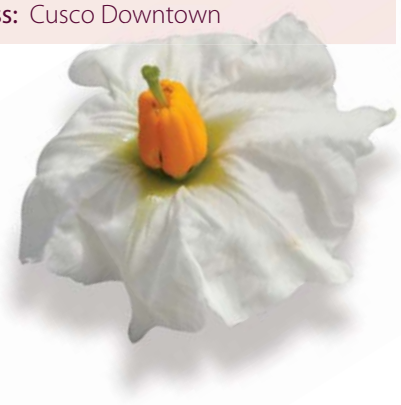
Dress code: Smart Casual

National Potato Day Special Program

Wednesday, May 30th

Time: From 11:10

Address: Cusco Downtown



* Entry to San Francisco Convent is subjected to a formal invitation by the WPC-ALAP Organizing Committee.

Partner Program

A special program has been designed for accompanying people who will travel with the participants of the Congress, enabling them to enjoy the attractions of the Cusco region. For this program, it is necessary to have previously registered. The activities are:

27th May Welcome Cocktail at Qoricancha Temple

28th May WPC-ALAP Opening Ceremony

28th May Afternoon half day tour (MAP Museum, Pisco and Choco Museum)

29th May Full day tour on Baroque Route of Andes

29th May Closing Cocktail at San Francisco Convent

30th May National Potato Day Special Program

31st May Field Day* Option choose by the WPC-ALAP participant registered

Midday tour (MAP Museum, Pisco and Choco Museum) - May 28th
Partners will visit three very interesting museums in the city of Cusco. There are two schedule options. The first stop will be the MAP Museum that has 403 pieces dated from 1250 A.C. to 1532 D.C. and were selected from the 45 000 pieces belonging to the Archaeological Museum Larco Herrera of Lima. The museum and its illumination are spectacular which enhances the beauty of the paintings, sculptures and ceramics of the prehistoric Peru, all located in the 11 rooms that the museum has. Then, the day will continue with a visit to the Choco Museum, where participants will learn about the origins of the Peruvian chocolate, its production process, its transformation in cooking and particularly, they will taste samples of this magnificent product.
To close the day, the participants will visit the Pisco Museum where a journey to the history of the Peruvian Pisco awaits and grape products from the province of Ica. During our time there, participants will learn how to prepare Pisco Sour and Chilcano as well as experience a tasting of the different types of Pisco.

Lunch will be at MAP Café.

Tour duration:	5 hours
Two options:	From 09:00 to 14:00 with lunch at the end of the tour.
	From 13:00 to 18:00 with lunch at the beginning of the tour.

What is included?

- Vehicle + driver
- Lunch at MAP CAFÉ / Pisco classes and tasting / chocolate production class
- English/Spanish speaking guide
- Tickets required for the day

Full day tour at the Baroque Route of the Andes - May 29th
This tour is a combination of natural scenerios: the Inca architecture of Tipon, the Wari pre-inca architecture of Pikillacta, the beautiful chaple of Andahuaylillas known as the Sistine Chapel of America and a tasting of the wonders of the gastronomy of Saylla, Huasao.
The pick up at the hotel will be around 09:15 hours, then to be taken to a guided visit to what is known as the southern valley of Cusco. We will stop at:

Tipon: A vast agricultural space with 12 terraces that are still used until today. Its walls were built with finely carved stones and rocks. What´s most impressive about this site is the irrigation system that the community still makes use of.

Pikillaqta: A great urban site developed in the times of the Wari Empire, which has more than thousand constructions and even four story high buildings.

Andahuaylillas: A typical Andean village from the times of the Spanish conquest. Its catholic temple outstands due to its gorgeous decorations and wall paintings from the XVII and XVIII centuries. Upon return, we will stop at "Saylla", a typical Cusco town where delicious pork crackling can be tasted.

Tour duration:	6 to 7 hours

What is included?

- Vehicle + driver
- Picnic lunch at a selected area
- English/Spanish speaking guide
- Tickets for all visits

The tour operator module that is in charge of the partner program may be found on the Gallery 2 at the entrance of the Convention Center. If you wish to contact the person in charge, use the information below: Diana Bauer (Mobile: +51 980564900)




Detailed Program

SUNDAY MAY 27	
15.10 - 18.40	Registration
19.30 - 22.00	**Welcome Cocktail at Qoricancha Temple**
MONDAY MAY 28	
08.00 - 08.40	Registration
08.40 - 10.00	**Opening Ceremony WPC - ALAP** **Chair: Miguel Barandiarán** Head of INIA and Chair of Organizing Committee
10.00 - 10.30	Coffee Break
10.30 - 11.50	**Plenary 1: WPC-ALAP: The Potato Global Approach** **Chair: Romain Cools** President & CEO - WPC Inc.
	David Nowell (FAO, Agriculture Officer, FAO Regional Office for Latin America and the Caribbean): Global Food and Agricultural Issues trends
	Barbara H. Wells (CIP): The Role of Potato in Feeding the Future
11.50 - 13.10	**Plenary 2: WPC-ALAP: Climate Change // Varietal Development & Biotechnology** **Chair: John Griffin** Vice President WPC
	Marco Bindi (University of Florence, Italy): Global Effects of Climate Change in the Potato Crop
	Glenn Bryan (James Hutton Institute, UK): Future of Modern Biotechnology in Varietal Development
13.10 - 14.30	Lunch

14.30 - 15.50	**Technical Session "A" Climate Change and Potato Agri-food Systems** **Chair:** Peter Vander Zaag, Sunrise Potatoes // **Cochair:** David Ramirez, CIP	**Technical Session"B" Trends in Potato Consumption & Market** **Chair:** Ron Gall, Industry Representative Ex Potato New Zealand Business Manager // **Cochair:** Guy Hareau, CIP	**Technical Session"C" Potato Variety Development & Biotechnology** **Chair:** Ghislain Pelletier, Board Director for the Sustainable Agriculture Initaitive (SAI) Platform and WPC // **Cochair:** Marc Ghislain, CIP
15.50 - 16.20	Coffee Break		
16.20 - 17.20	**Technical Session"A" Climate Change and Potato Agri-food Systems** **Chair:** Peter Vander Zaag, Sunrise Potatoes // **Cochair:** David Ramirez, CIP	**Technical Session"B" Trends in Potato Consumption & Market** **Chair:** Ron Gall, Industry Representative Ex Potato New Zealand Business Manager // **Cochair:** Guy Hareau, CIP	**Technical Session"C" Potato Variety Development & Biotechnology** **Chair:** Ghislain Pelletier, Board Director for the Sustainable Agriculture Initaitive (SAI) Platform and WPC // **Cochair:** Marc Ghislain, CIP
17.20 - 18.40	**Poster Session:** Technical sessions A, B and C (Available all day)		
18.40 - 20.20	Free		
08.00 - 17.20	**Comercial Exhibition**		

TUESDAY, MAY 29			
08.00 - 08.20	Registration		
08.20 - 08.40	**Opening Session 1**		
	Ambassador Kenneth M. Quinn (President The World Food Prize Foundation)		
08.40 - 10.00	**Plenary 3: WPC-ALAP: Global Approach // Peru and its Biodiversity** **Chair: Juan Risi** Viceminister Agrarian Policies Ministry of Agriculture and Irrigation of Peru		
	Máximo Torero (WB): Potato Technology and Economic World Trends		
	Andre Devaux (CIP) / **Miguel Ordinola** (CIP): The Role of Potato Diversity in Peru on Food Security, Nutrition and Competitivity		
10.00 - 10.30	Coffee Break		
10.30 - 11.30	**Technical Session"D"** **Potato Pest and Diseases** **Chair:** John Jamieson, Deputy Minister of Agriculture and Fisheries, Prince Edward Island, Canada // **Cochair:** Jan Kreuze, CIP	**Technical Sessions"E"** **Potato Crop Management** **Chair:** David Thompson, Director of WPC Inc. // **Cochair:** Marcelo Huarte INTA, Argentina	**Technical Sessions"F"** **Post harvest & Processing Technology** **Chair:** Nora Olsen, Professor and Extension Potato Specialist, University of Idaho // **Cochair:** Daniel Caldiz, McCain Foods
11.30 - 12.30	**Technical Session"D"** **Potato Pests and Diseases** **Chair:** John Jamieson, Deputy Minister of Agriculture and Fisheries, Prince Edward Island, Canada // **Cochair:** Jan Kreuze, CIP	**Technical Session"E"** **Potato Crop Management** **Chair:** David Thompson, Director of WPC Inc. // **Cochair:** Marcelo Huarte Former INTA, Argentina	**Technical Session "G"** **Potato Biodiversity and its relation to Breeding** **Chair:** Daniel Caldiz, McCain Foods // **Cochair:** Alfonso del Rio, U. Wisconsin
12.30 - 13.50	Lunch		
13.50 - 14.50	**Technical Session"D"** **Potato Pests and Diseases** **Chair:** Jonathan Jones, The Sainsbury Laboratory UK // **Cochair:** Jan Kreuze, CIP	**Technical Session"E"** **Potato Crop Management** **Chair:** David Thompson, Director of WPC Inc. // **Cochair:** Marcelo Huarte Former INTA, Argentina	**Technical Session "H"** **Potato Biodiversity and its relation to Nutrition and Health** **Chair:** Daniel Caldiz, McCain Foods // **Cochair:** Alfonso del Rio, U. Wisconsin

14.50 - 15.10	Cofee Break
15.10 - 16.20	**Plenary 4: WPC-ALAP: Summary and Strategies for Moving the Potato Forward** **Chair: Marcelo Huarte** ALAP
	Jeffrey Sachs (Columbia University, USA)
	Lieve Van Elsen, Region Director Trias Andes **Leoncio Pichihua Quito,** Coopagros
16.20 - 17.00	**Plenary 4: WPC-ALAP: Summary and Strategies for Moving the Potato Forward (wrap up)** **Chair: Marcelo Huarte Former INTA, Argentina**
	Romain Cools, President & CEO - WPC Inc., Potato Tool Kits
	Oscar Ortíz (CIP) / **Miguel Barandiarán** (INIA Perú)
17.00 - 18.00	**Poster and Oral Presentations of the technical sessions Award ceremony**
18.00 - 19.00	**Poster Session:** Technical sessions D, E, F, G and H (available all day)
19.00 - 19.20	WPC Closing & Flag Ceremony
19.30 - 20.00	Free
20.00 - 22.00	Closing Cocktail at San Francisco Convent
08.00 - 17.20	**Comercial Exhibition**

WEDNESDAY, MAY 30			
08.00 - 08.20	Registration		
08.20 - 9.40	**Technical Session "I" Late Blight Global Challenge Workshop Chair:** Ivette Acuña, INIA Chile // **Cochair:** Jorge Andrade, CIP	**Technical Session "J" In situ Conservation Challenges Workshop Chair:** Severin Polreich, CIP// **Cochair:** Stef De Haan, CIAT Colombia	**Technical Session "K" Value Chain for small Farmers and Culinary Innovations Workshop Chair:** Andre Devaux CIP// **Cochair:** Andrés Casas, UNALM Peru
9.40 - 10.00	Cofee Break		
10.00 - 11.10	**Technical Session "I" Late Blight Global Challenge Workshop Chair:** Ivette Acuña, INIA Chile // **Cochair:** Jorge Andrade, CIP	**Technical Session "J" In situ Conservation Challenges Workshop Chair:** Severin Polreich, CIP// **Cochair:** Stef De Haan, CIAT Colombia	**Technical Session "K" Value Chain for small Farmers and Culinary Innovations Workshop Chair:** Andre Devaux CIP// **Cochair:** Andrés Casas, UNALM Peru
11.10 - 13.30	**National Potato Day:** Special Program (organice by Ministry of Agriculture and Irrigation of Peru)		
13.30 - 14.50	Lunch		
14.50 - 17.20	**ALAP Meeting Special Program** (organice by ALAP)		
18.00 - 20.20	Free		
08.00 - 11.20	**Comercial Exhibition**		
THURSDAY, MAY 31			
06.00 - 18.00	**Field Day:** 2 options		
	A: Potato Park		
	B: INIA Agricultural Experimental Station (EEAA) Andenes Chair/coordinator: Elisa Salas (CIP/ALAP), Cinthya Zorrilla and Ladislao Palomino (INIA Peru)		
18.40 - 20.20	Free		

Plenary Session 1: two hours
Plenary Sessions 2, 3 and 4: one hour and twenty minutes
Technical sessions A-C: two hours and twenty minutes. Time for each oral presentation 20 minutes (7 x 20')
Technical sessions D and E: three hours. Time for each oral presentation 20 minutes (9 x 20')
Technical sessions F: one hour. Time for each oral presentation 20 minutes (3 x 20')
Technical sessions G and H: two hours. Time for each oral presentation 20 minutes (6 x 20')
Workshops I-K: two hours and twenty minutes. Two oral presentations of 30 minutes each and one round table

Plenary Sessions

Plenary 1 theme: The Potato Global Approach
Chair: Romain Cools – CEO World Potato Congress Inc.
Monday, 28 May – 10.30 – 11.50 hrs

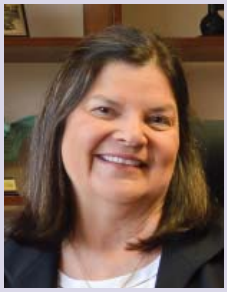
David Nowell

FAO Regional Office for Latin America and the Caribbean
Agriculture Officer
Plenary title: Global Food and Agricultural Issues trends

In December 2017, David Nowell joined the FAO Regional Officer as the FAO Agricultural Officer, covering Plant Production and Plant Health in Latin America and the Caribbean. A major focus of this work is plant biodiversity and in particular its conservation and responsible usage in the region. Other major activities include sustainable production, Globally Important Agricultural Heritage Systems (GIAHS), anti-microbial resistance in the environment, emergency pest response and phytosanitary standards.

Nowell worked in the International Plant Protection Convention (IPPC) Secretariat, based in FAO in Rome Italy, from 1998 to 2016 primarily covering information exchange, communication, national reporting obligations and related capacity building. This included phytosanitary standard setting within the framework of the World Trade Organization´s Sanitary and Phytosanitary Agreement (SPS Agreement) - with the objective of facilitating safe trade from a plant health perspective.

Nowell graduated from the University of KwaZulu-Natal (UKZN) in 1981 with a BSc (Agriculture) majoring in plant pathology. He was awarded his PhD in 1997 (UKZN) while working full time in the seed industry. During this period, he also served on a number of national industry committees and industry/government working groups.



Barbara H. Wells

International Potato Center
Director General
Plenary title: Global Food and Agricultural Issues trends

Dr. Barbara H. Wells is the Director General of the International Potato Center (CIP), joining the organization in early 2014. She is an accomplished senior executive with extensive scientific and business experience in research, general management, strategic planning, regulatory processes, and the technical development and commercialization of products in agricultural and forestry markets throughout the world. Her agriculture and forestry expertise spans more than 30 years. Throughout her career, Dr. Wells has worked directly with farmers to apply science at the farmer level to improve their livelihoods and productivity. Additionally, she has had extensive Board experience, having served on several private sector, industry association, and non-for profit boards and advisory committees.

Prior to joining CIP, she was Vice President of Global Strategy at Agrivida, Inc., a firm that develops enzyme solutions for animal nutrition and feed-stocks for the production of biofuels and bio-products, Dr. Wells was responsible for planning and implementing the company's global commercial development strategy and scientific collaboration activities with an initial focus on Latin America.

From 2002 to 2012 she was President and Chief Executive Officer of ArborGen, Inc., a global forestry tree seedling and tree breeding business. In this post Dr. Wells led the transformation of the organization from a start-up biotechnology company to a fully operational business with commercial sales of more than 250 million tree seedlings in the US, New Zealand and Australia.

Prior to joining ArborGen, Dr. Wells was Vice President responsible for growth initiatives and investments in Latin America for Emergent Genetics, an agricultural investment firm.

Dr. Wells previously spent 18 years at Monsanto as Co-Managing Director of Brazilian operations and in several leadership roles in field product development across the world for many crops including cotton, corn, soybeans, tree crops, and other products.

Dr. Wells has spent a large part of her life outside of the USA. She grew up in Peru and Bolivia and spent much of her career based in Brazil. She is fluent in Spanish and Portuguese.

Dr. Wells received her Ph.D. in Agronomy from Oregon State University, her M.S. degree in Plant Pathology and her B.S. degree with Honors in Horticulture from the University of Arizona.

Plenary 2 theme: Climate Change / Varietal Development & Biotechnology
Chair: John Griffin – Vice President World Potato Congress Inc.
Monday, 28 May – 11.50 – 13.10 hrs

Roberto Ferrise

University of Florence
Researcher
Plenary title: Climate Change as a risk to potato production

Researcher at the Department of Agri-food Production and Environmental Sciences, is co-author of 37 papers on refereed international journals dealing with agrometeorology, crop modelling, climate change, eco-physiology (Scopus H-index = 12). He is lecturer of the courses "Land Evaluation" and "Climate Change and Ecosystems" at the University of Florence. He was involved in several international and national projects (AgMIP, MACSUR, SmartSOIL, CIRCE, ENSEMBLES). His main research activities are the assessment of climate change impacts on typical Mediterranean crops and the investigation of possible adaptation and mitigation strategies. He worked on coupling crop models with medium-term weather forecasts for precision agriculture. He is currently working on the identification of adaptation strategies and related uncertainties for durum wheat in the Mediterranean by using multi-model ensembles and climate probabilistic projections. Further interests are the use of crop modelling for designing future climate resilient crops and incorporating the effects of pests and diseases.

Glenn Bryan

The James Hutton Institute
Senior scientist
Plenary title: The Role of Potato in Feeding the Future

Dr. Glenn Bryan leads the Potato Genetics and Breeding group at the James Hutton Institute in Dundee. He has made significant advances in the genetic mapping of some of the most effective sources of pest and disease resistance in Potato, as well as tuber quality and developmental traits. He also led the UK contribution to the Potato Genome Sequencing Project. He serves as one of the co-chairs of the global SOL project, whose role is to facilitate research into Solanaceous plant species. He serves on various committees, such as BBSRC grant Review panels and the UK Knowledge Transfer Network (KTN) Plant Sector Group advisory panel. His current research is focused mainly on development and use of germplasm resources for potato trait analysis, and the genetic analysis of commercially relevant potato traits in potato, especially those impacting on marketable yield, such as tuber dormancy and resistances to important pests and pathogens.

Opening Session
Tuesday, 29 May – 08.20 – 08.40 hrs

Kenneth M. Quinn

The World Food Prize Foundation
President

On January 1, 2000, Kenneth M. Quinn assumed the presidency of the World Food Prize Foundation in Des Moines, Iowa, following a 32-year career as an American diplomat, which focused significantly on refugee and humanitarian relief efforts and culminated with his service as U.S. Ambassador to the Kingdom of Cambodia.
For the past 18 years, Ambassador Quinn has endeavored to build the World Food Prize Foundation, founded by the Father of the Green Revolution, Dr. Norman E. Borlaug, so that it could come to be seen as the "Nobel Prize for food and agriculture." Each October, more than 1,200 people come from 50 countries to Des Moines, Iowa, for the Borlaug Dialogue international symposium, which has been called the "premier conference in the world on global agriculture." Ambassador Quinn's foundation also operates one of the most unique youth education programs for high school students in America.

Plenary 3 theme: Global Approach / Peru and its Biodiversity
Chair: Juan Risi Carbone – Ministry of Agriculture and Irrigation of Peru
Tuesday, 29 May – 08.40 – 10.00 hrs

Maximo Torero

World Bank
Executive Director
Plenary title: Potato Technology and Economic World Trends

Maximo Torero is the World Bank Group Executive Director for Argentina, Bolivia, Chile, Paraguay, Peru and Uruguay since November 2016.
Prior to joining the Bank, Dr. Torero led the Division of the Markets, Trade, and Institutions at the International Food Policy Research Institute (IFPRI). His major research work lies mostly in analyzing poverty, inequality, importance of geography and assets (private or public) in explaining poverty, and in policies oriented towards poverty alleviation based on the role played by infrastructure, institutions, and on how technological breakthroughs (or discontinuities) can improve the welfare of households and small farmers. His experience encompasses Latin America, Sub-Saharan Africa, and Asia.

Dr. Torero received his Ph.D. from the University of California at Los Angeles (UCLA), held a postdoctoral fellow position at the UCLA Institute for Social Science Research (ISSR), and is a professor on leave at the Universidad del Pacífico and an Alexander von Humboldt Fellow at University of Bonn, Germany. He has won the World Award for Outstanding Research on Development given by the Global Development Network (GDN) twice.

André Devaux

International Potato Center
Latin American and the Caribbean (LAC) Regional Director
Plenary title: Potato Technology and Economic World Trends (Co-author)

André Devaux has a Ph.D in Agriculture Science, Université Catholique Louvain (UCL), Belgium, with 30 years' experience. Most of his career has been associated with the International Potato Center (CIP). He has also worked with FAO and the Swiss Agency for Development and Cooperation (SDC). He has developed expertise in strengthening agriculture research and development programs with multidisciplinary teams in Latin America, Africa and Asia. Extensive research experience in potato production systems, Innovation for inclusive value chain development and food and nutrition security
He has published more than 50 articles, books and reports. He is now based in Ecuador as CIP's Latin American Regional Program Director, coordinating CIP activities with national and international partners in the LAC region and in a more global context.

Miguel Ordinola

International Potato Center
Project Coordinator LAC (Latin America and the Caribbean) in Peru
Plenary title: Potato Technology and Economic World Trends (Co-author)

Miguel Ordinola is an Economist with a Mg. S. C. in Agricultural Economics with over 25 years' experience in related specialties of agribusiness project management, agricultural policy, and agricultural marketing and management activities. Throughout his career he has combined academic and applied activities (agricultural policy, agribusiness, innovation development) and research; management of agricultural development projects; formulation and evaluation of industrial projects (private companies); agricultural research and extension; marketing and product development; university teaching (marketing). His work combines work experience in the private sector, international technical assistance and advice to the public sector. During his career he has developed several successful experiences in business development articulating smallholders to more demanding markets as was the case of native potatoes, artichokes boneless trout, alpaca meat, quinoa, yellow potatoes, special coffee, cocoa quality, among other. He has over 70 publications in national and international media.

Plenary 4 theme: Summary and Strategies for Moving the Potato Forward
Chair: Marcelo Huarte – Former INTA
Tuesday, 29 May – 15.10 – 17.00 hrs

Jeffrey Sachs

Center for Sustainable Development at Columbia University
Director
Plenary title: To be confirmed (video conference)

Jeffrey Sachs is currently Director of the UN Sustainable Development Solutions Network under the auspices of UN Secretary-General António Guterres, and a Commissioner of the ITU/UNESCO Broadband Commission for Development. He is Chair and Founder of SDG USA, a non-governmental initiative to promote the Sustainable Development Goal concepts in the United States. Sachs is also co-founder and Chief Strategist of Millennium Promise Alliance, and was director of the Millennium Villages Project (2005-2015). Sachs has authored and edited numerous books, including three New York Times bestsellers: The End of Poverty (2005), Common Wealth: Economics for a Crowded Planet (2008), and The Price of Civilization (2011). His recent books include: To Move the World: JFK's Quest for Peace (2013), The Age of Sustainable Development (2015) and Building the New American Economy: Smart, Fair & Sustainable (2017). Professor Sachs is widely considered to be one of the world's leading experts on economic development, global macroeconomics, and the fight against poverty. His work on ending poverty, overcoming macroeconomic instability, promoting economic growth, fighting hunger and disease, and promoting sustainable environmental practices, has taken him to more than 125 countries with more than 90 percent of the world's population. For more than thirty years he has advised dozens of heads of state and governments on economic strategy, in the Americas, Europe, Asia, Africa, and the Middle East. He was among the outside advisors to Pope John Paul II on the encyclical Centesimus Annus and in recent years has worked closely with the Pontifical Academy of Sciences and the Pontifical Academy of Social Sciences on the issues of sustainable development, especially in the context of Pope Francis' encyclical Laudato Si'.

Lieve Van Elsen

Agronomic engineer (Bio-ingenieur KULEUVEN)
Regional Director TRIAS Andes
Plenary title: Applying the Business Model of Social Entrepreneurship, to strengthen potato producer´s organisations in Ecuador and Peru (Co-author)

Master of Science in Water resources engineering, Bio-ingenieur; tropical agriculture and soil conservation. Since 2000, working in Development Cooperation, as natural resource management advisor in SNV (Dutch Cooperation), with responsibilities in the Andean Countries.
Since 2009, working for Trias, a Belgian NGO, strengthening capacities of farmer organizations, in order to reach social, economic and environmental sustainability, by improving production, giving added value and promoting access to markets with fair prices for producers, and giving farmers a voice to come up for their rights.
As regional Director of Trias Andes, she is supporting COOPAGROS, a potato cooperative of Kishuara – Apurimac, since 2011, organizing the potato growers in order to improve their livelihoods, generating increased income through the creation of better associative services (production and access to markets). In 2016 they started a new production line to give added value to the potatoes, with the construction of the first "Chuño" enterprise of Peru, with high potential for new markets and better prices for the farmers of Coopagros.

Leoncio Pichihua Quito

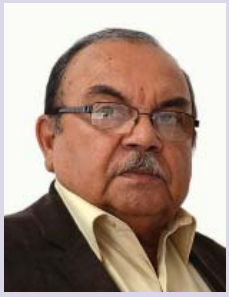
Coopagros Director
Plenary title: Applying the Business Model of Social Entrepreneurship, to strengthen potato producer´s organisations in Ecuador and Peru (Co-author)

Agricultural Producer. From 2005 to 2010, previously elected by the associates, he served as the president of the "Los Andes de Kishuará" Association, the first association of the Kishuará district. This association promoted the technical management of the potato production and had as a vision, selling to wholesalers from Lima, different kinds of potato such as Huairo, Canchan, Peruanita, Yungay, etc. Consequently, the association experienced a growth and accomplished its expectations. From 2006 to 2009, he also served as the president of the Central Potato Producers Association of the province of Andahuaylas. Working together with the mayor of this province and the help of the Kishuará and Andahuaylas farmers, it was possible for this association to become the first one to sell potato to the wholesalers from Lima, Cusco and other provinces, different types of native potato such as Huayro, Peruanita, Canchan, Yungay, etc.

Oscar Ortiz

International Potato Center
Deputy Director General for Research and Development

Oscar Ortiz has worked at CIP for more than two decades. An agronomist by training, Oscar began his career working on impact assessments of integrated pest and disease management in 1992. He was the leader of the Integrated Crop Management Research Division and of the Integrated Crop and systems Research Global Program between 2004 and 2012, when he was appointed Deputy Director of Research for Regional Science Programs. In 2014, he was appointed Deputy Director General for Research and Development.
He has extensive experience in participatory research related to integrated pest and disease control; integrated crop management; agronomy and seed management; impact assessment of research and extension activities; and the use of innovation system approaches for research and development. He has a PhD in agricultural innovation and rural development from the University of Reading, U.K. and has published extensively in peer review journals, book chapters and conference proceedings.



Miguel Barandiaran

National Institute of Agricultural Innovation – INIA
Head

Agricultural Engineer, (UN P. Ruiz G., Peru), M.Sc. (University College of Wales, UK), Ph.D. (Iowa State University, USA) Expert in Agriculture Research and Plant Breeding. Expert in seed production and germplasm development. Highly experienced in basic and applied research, and in adaptation and participatory research. Wide experience in project proposals and management, and fund raising. Most of my professional career was in the National Institute of Agricultural Innovation – INIA, where I started as junior researcher. In the next years in INIA my posts were as National Coordinator in both the Corn National Program and Pastures and Forages National Program, National Director in Crop Research, and Director General of Agricultural Research. My actual post is Head of INIA. I also worked as scientist of the Maize Program of the International Maize and Wheat Improvement Center – CIMMYT, and as University Lecturer.

Technical Sessions

Technical Session A: Climate Change and Potato Agri-food Systems
Monday, 28 May – 14.30 – 17.30 hrs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1. Chair: Peter VanderZaag
Sunrise Potato
Director

2. Co-chair: David Ramirez
International Potato Center
Crop Ecophysiologyst

Summary:
Climate change will constrain the capability of agrosystems to provide 60% more food and 3 times more water to feed the increasing population which is predicted to reach 9.2 billion for 2050. The increase of atmospheric temperatures, higher occurrence of extreme events like droughts and flooding, displacements and new incidences of pest and diseases, disruption of food markets among others are current effects of Climate Change which will be enhanced by no appropriate water and land management. Under this scenario, the reduction of vulnerability, the improvement of adaptive capacity, and the increase of resilience and transformability of agrosystems reorienting policies in response to Climate Change are crucial to mitigate its likely effects. In this thematic session we will revise, share and discuss the current scientific topics related to the improvement of prediction capacity, building evidence and resources management in agrifood potato systems around the world to cope with Climate Change. Perspectives like precision agriculture, climatic smart genotypes, modeling for the analysis of yield gap, environmental footprint and response analyzes of potato systems under different climatic scenarios and policies to enhance resilience have been topics published in the last years and this thematic session pretend to address.

Selected Oral Presentations

Technical session A: Climate Change and Potato Agri-food Systems

Assessing risk of potato crops of southern Chile under projected climate scenarios using the SUBSTOR-Potato model

Patricio Sandaña[1*]; Ellen Mallory[2]; Carolina Lizana[3]; Francisco Meza[4] and Victor García-Gutiérrez[4]

1 Instituto de Investigaciones Agropecuarias INIA, Remehue, Osorno, Chile; 2 University of Maine, Orono, USA; 3 Institute of Plant Production and Protection, Universidad Austral de Chile, Campus Isla Teja, Valdivia, Chile; 4 Centro Interdisciplinario en Cambio Global UC, Pontifical Catholic University of Chile, Santiago, Chile. * E-mail: patricio.sandana@inia.cl

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Sustainable potato agriculture to challenge climate change in the Andes through supplemental calcium nutrition and breeding for frost tolerance

Alfonso del Rio[1*,2], John Bamberg[2], Jiwan Palta[1], Rene Gomez[3], Jesus Arcos[4], William Roca[3], Alberto Salas[3], David Ellis[3], Alejandro Argumedo[5] and Andean Farmers[6]

1 Department of Horticulture, University of Wisconsin, Madison WI 53706; 2 USDA/ARS US Potato Genebank, WI 54235; 3 International Potato Center (CIP)- Genebank, Lima, Peru; 4 Instituto Nacional de Innovacion Agraria (INIA)-Puno; 5 Asociacion ANDES, P.O. Box 567, Cusco, Peru; 6 Conservationist farmers of San Jose de Aymara, Huancavelica - Peru and Asociacion Parque de la Papa, Cusco, Peru. *E-mail: adelrioc@wisc.edu

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The impact of climate change on future potato yield and water use efficiency in South Africa and possibilities for adaptation

J.M. Steyn[1*], A.C. Franke[2], L.N. Muelelwa[2] and A.J. Haverkort[3]

1 Department of Plant and Soil Sciences, University of Pretoria, South Africa; 2 Department of Soil, Crop and Climate Sciences, University of the Free State, South Africa; 3 Wageningen University and Research, Wageningen, The Netherlands. *E-mail: martin.steyn@up.ac.za

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Second climate smart agricultural revolution in the Andes for the 21st Century

Graham Thiele[1*], Alex Chepstow-Lusty[2], Michael Frogley[2], Stef de Haan[3], Henry Juarez[4], Jürgen Kroschel[5] and Bettina Heider[4]

1 CGIAR Research Program on Roots, Tubers and Bananas led by International Potato Center (CIP), Apartado 1558, Lima 12, Peru; 2 Department of Geography, University of Sussex, Brighton, BN2 4GJ, United Kingdom; 3 International Center for Tropical Agriculture, c/o Agricultural Genetics Institute (AGI); 4 International Potato Center, Apartado 1558, Lima 12, Peru; 5 c/o IARI Campus, Pusa New Delhi 110012, India. * E-mail: g.thiele@cgiar.org

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Climate smart potato for mid-elevation agro-ecologies in tropical Africa

T. Mendes[1*], M. Parker[1], D. Mbiri[1] and E. Schulte-Geldermann[1]

1 CGIAR Research Program on Roots, Tubers and Bananas (RTB), International Potato Center, Regional Office Sub-Saharan Africa, ILRI Campus, Nairobi, Kenya. * E-mail: t.mendes@cgiar.org

Physiological markers of tolerance to drought conditions in potato varieties (*Solanum tuberosum* L. Phureja Group). Knowing the physiological mechanisms of adaptation to climate change

Darwin L. Moreno-Echeverry[1*], Carlos E. Ñústez López[1], Carlos A. Guerrero Fonseca[2], Liz P. Moreno Fonseca[1]

1 Departamento de Agronomía, Facultad de Ciencias Agrarias, Universidad Nacional de Colombia, Bogotá D.C., Colombia; 2 Departamento de Ciencias Fisiológicas, Facultad de Medicina, Universidad Nacional de Colombia, Bogotá D.C., Colombia. * E-mail: dlmoreno@unal.edu.co

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Assessment of the tolerance to low temperatures of native potatoes (*Solanum spp*) in simulated conditions in La Molina, to mitigate climate change

Cristina Quintana[1*], Agripina Roldán Chávez[1] and Jorge Jiménez Dávalos[2]

1 Instituto Nacional de Innovación Agraria; 2 Universidad Nacional Agraria La Molina. * E-mail: cristina.q.palacios@gmail.com

Selected Posters

Technical session A: Climate Change and Potato Agri-food Systems

Developing a potato sustainability index through greenhouse gas and nutrient density modelling to support nutrient sensitive agriculture

Carmen Muller[1*], Hettie Schönfeldt[1] and Beulah Pretorius[1]

1 University of Pretoria, Institute of Food, Nutrition and Well-being. * E-mail: vanniekerk.carmen@gmail.com

Regulating flower and tuber formation in potato with light spectrum and day length in Pakistan

Syed Ijaz Ul Hassan[1] and Tariq Javaid[1*]

1 Potato Research Institute, Sahiwal, Punajb, Pakistan. * E-mail: tariq_uaf@yahoo.com

Sustainability of potato farms in the Lima region

Sergio Eduardo Contreras-Liza[1*] and Sady García Bendezú[2]

1 Universidad Nacional José Faustino Sánchez Carrión, Av. Mercedes Indacochea 609, Huacho-Peru; 2 Universidad Nacional Agraria La Molina, Av. La Universidad s/n, La Molina, Lima-Perú. * E-mail: scontreras@unjfsc.edu.pe

Social implications of the use of water quality water as a key factor in the performance of sweet potato cultivation in Cantarranas, Honduras

Raul Lopez[1*] and Rony Varela[2]

1 Universidad Nacional Autonoma de Honduras; 2 AVICAL. * E-mail: raul.lopez@unah.edu.hn

Yield and physiological responses of potato crop under future climate scenarios of temperature increase in southern Chile

Andrea Ávila[1,2,3*], Muriel Quinet[4], Stanley Lutts[4], Juan Pablo Martinez[5,6] and Carolina Lizana[1,2]

1 Instituto de Producción y Sanidad Vegetal, Facultad de Ciencias Agrarias, UACh, Valdivia, Chile 2 Centro de Investigación en Suelos Volcánicos, UACh, Valdivia, Chile; 3 Escuela de Graduados, Facultad de Ciencias Agrarias, Universidad Austral de Chile (UACh), Valdivia, Chile; 4 Groupe de Recherche en Physiologie végétale (GRPV), Earth and Life Institute – Agronomy (ELI-A), Université catholique de Louvain, Louvain-la-Neuve, Belgium; 5 Instituto de Investigaciones Agropecuarias (INIA-La Cruz), La Cruz, 6 Centro Regional de Estudios en Alimentos Saludables (CREAS), CONICYT Regional, Gore Región de Valparaíso, R12C1001, Valparaiso, Chile. * E-mail: a.avila.valdes@gmail.com

Relationship between Guatemalan Moth (Tecia solanivora) adults and elements of climate in the potato crop (*Solanum tuberosum L.*) in West Sabana de Bogotá, Mosquera, Colombia

Wilmar Alexander Wilches Ortiz[1*], Eduardo Espitia Malagon[1] and Ruy Edeymar Vargas Diaz[1]

1 Corporación Colombiana de Investigación Agropecuaria–Corpoica * E-maill: wwilches@corpoica.org.co

Evaluation of drought tolerance in native potato (*Solanum spp.*) under semicontrolled conditions, to mitigate climate change

Niels M. Ramirez Palacios[1*], Agripina Roldán[1] and Jorge E. Jiménez[2]

1 Área de Registros de la Agrobiodiversidad del Instituto Nacional de Innovación Agraria (INIA) Distrito de la Molina, Provincia de Lima, Departamento de Lima, Perú; 2 Universidad Nacional Agraria La Molina. * E-mail: biomar5678@gmail.com

Options of potato production stabilization using drip irrigation in the potato production region of the Czech Republic

Pavel Kasal[1*] and Jaroslav Cepl[1]

1 Potato Research Institute. * E-mail: kasal@vubhb.cz

Early Agroclimatic Warning System Prototype (EAWS-Prototype), for potato crops (*Solanum tuberosum*) in the municipality of Yacuanquer (Nariño, Colombia)

Douglas Andrés Gómez-Latorre[1*], Andrea Onelia Rodríguez Roa[1] and Juan Carlos Martínez Medrano[1]

1 Corporación Colombiana de Investigación Agropecuaria – Corpoica. * E-mail: dagomez@corpoica.org.co

Experience of the first year of The Allin Kawsay Program in potato smallholders of Huanuco

Evelyn Salinas[1], Luis Fernando Martinez[1] and Rosario Agapito[1*]

1 BASF Peruana. * E-mail: rosario.agapito@basf.com

Targeted calcium nutrition as a strategy to mitigate the impact of heat stress on potato tuber quality and production in view of the global climate change

Jiwan Palta[1*], Justin Schabow1 and Ryan Chua[1]

1 Department of Horticulture, University of Wisconsin, Madison, WI 53706 USA. * E-mail: jppalta@wisc.edu

Effects of climate change on the distribution of a Potato Tuber Moth, Tecia solanivora (Povolny) (Lepidoptera: Gelechiidae)

Jaris Veneros[1*], Magali García[2], Henri Tonnang[3] and Dario Barona[4]

1 Universidad Nacional Toribio Rodríguez de Mendoza - Amazonas. Facultad de Ingeniería Civil y Ambiental. UNTRM - FICIAM. Calle Universitaria N° 304. Chachapoyas – Perú; 2 Instituto de Investigación, Innovación y Desarrollo para el Sector Agrario y Agroindustrial de la Región Amazonas. IIDAA. Calle Universitaria N° 304. Chachapoyas- Perú; 3 International Maize and Wheat Improvement Center. CIMMYT. Village Market 00621 Nairobi – Kenya; 4 Ecuaquímica Ecuatoriana de Productos Químicos C.A. Avenida Juan Tanca Marengo Km 1.8. Guayaquil - Ecuador. * E-mail: jarisven@gmail.com

Physiological variation, yield and free proline accumulation in potato cultivars (*Solanum tuberosum L.* Phureja Group) under water deficit

Wilmar Antonio Ariza[1], Luis E. Rodríguez Molano[2], Carlos A. Guerrero Fonseca[3], Liz P. Moreno Fonseca[2*]

1 Universidad Nacional de Colombia; 2 Departamento de Agronomía, Facultad de Ciencias Agrarias, Universidad Nacional de Colombia, Bogotá D.C., Colombia; 3 Departamento de Ciencias Fisiológicas, Facultad de Medicina, Universidad Nacional de Colombia, Bogotá D.C., Colombia. * E-mail: lpmorenof@unal.edu.co

A first insight on the effect of climate change on potato production under Tunisian Highlands conditions

Khamassi Nouri[1*], Essid Mohamed Farouk[2] and RiadhIlahy[1]

1 National Agricultural Research Institute of Tunisia, Rue Hedi Karray, 2080 Ariana, Tunisie; 2 Technical Center for Potato Tunisia, 2031, Route Djedeida, Mannouba, Tunisie. * E-mail: khamassi.nouri3356@gmail.com

Technical Session B: Trends in Potato Consumption & Market
Monday, 28 May – 14.30 – 17.30 hrs


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1. Chair: Ron Gall
World Potato Congress Inc.
Director

2. Co-chair: Guy Hareau
International Potato Center
Leader of Social and Nutritional Sciences Division (SNS)

Summary:
Potato has a prominent role to play in meeting the world's food production needs in the future, both as a commercial and high value crop in developed countries and as food security crop in developing countries. Better understanding of the trends and the drivers of demand is needed to help public and private sectors make informed decisions about investments along the value chain and in the food system. Opportunities for promoting potato consumption with innovative products will also enhance the crop contribution as one of the most important food crops in the world. The session aims at discussing new knowledge, methods and approaches that can improve the understanding in themes such as:

- Communication and marketing for promoting potato consumption;
- Global, regional and national trends in potato supply and demand;
- Potato emerging markets: niches, trends in developing countries;
- Trend in production of table potato and processed products: innovative products;
- Trends in organic potato production and markets;
- Future role of potato as food security crop;
- Value chain development;
- Culinary innovations (gastronomy).

Selected Oral Presentations

Technical Session B: Trends in Potato Consumption & Market

Launch, Growth and Challenges of Native Andean Potatoes as we take them world-wide

Martin Acosta[1*]

1 Industria de Alimentos Procesados INALPROCES S.A., Ecuador. * E-mail: comercial@inalproces.com

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Potato preferences in the Ecuadorian Highlands

Xavier Cuesta [1*], José Unda[1] and Zoila Yanez[2]

1 Instituto Nacional de Investigaciones Agropecuarias INIAP. Estación Experimental Santa Catalina. Panamericana Sur Km 1. Quito, Ecuador; 2 Wageningen UR Plant Breeding, Wageningen University and Research Center, P.O. Box 386, 6700 AJ Wageningen, The Netherlands. * E-mail: xavier.cuesta@iniap.gob.ec

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Release, adoption, and diversity of improved potato cultivars in Asia

Marcel Gatto[1*], Willy Pradel[1], Junhong Qin[1] and Guy Hareau[1]

1 International Potato Center (CIP). * E-mail: mgatto@cgiar.org

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Adoption and impacts of Cooperation 88 in Yunnan, China: a multi-dimensional analysis

Willy Pradel[1], Guy Hareau[1], Stephanie Myrick[2], Catherine Larochelle[2], Jeffrey Alwang[2*], Canhui Li[3], Junhong Qin[1], Zhen Cheng[2] and Victor Suarez[1]

1 International Potato Center; 2 Virginia Tech; 3 Yunnan Normal University. * E-mail: alwangj@vt.edu

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Market governance mechanisms in the native potato value chain in the Peruvian highlands: a case study in the Cusco region

Montesinos Deza, Bruno[1*] and Currey, Phillip[2]

1 Master of Agribusiness, School of Agriculture and Food Science, the University of Queensland, Australia; 2 Lecturer in Agribusiness School of Agriculture and Food Science, the University of Queensland, Australia. * E-mail: bruno.montesinos@uq.net.au

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Exploratory analysis of colored potatoes varieties in natura in the northeast of the São Paulo State

Maycon Vinicius Cassimiro Castro[1], Thiago Factor[2], Humberto Sampaio de Araújo[2*], Sally Blat[2], Luis Felipe Purquerio[3] and Carolina Cinto de Moraes[3]

1 Fatec; 2 Agencia Paulista de Tecnologia do Agronegócos (APTA); 3 Instituto Agronômico de Campinas (IAC).* E-mail: humbertosaraujo@yahoo.com.br

POTATOISM: How Potato Symbolism in Art and Culture Advances the Potato Revolution

Jeffrey Allen Price[1*]

1 Think Potato Institute. * E-mail: jeffreyallenprice@gmail.com

Selected Posters

Technical Session B: Trends in Potato Consumption & Market

A Consumers' valuation of Frital INTA: An empirical Research that applies the experimental Auction Method

Julieta Rodriguez[1*], **Elsa M, M. Rodriguez**[1] **and Beatriz Lupin**[1]

1 Universidad Nacional de Mar del Plata. Argentina. School of Economics and Social Sciences. * E-mail: jarodriguez@mdp.edu.ar

Production costs and use of potato seeds in the department of Nariño in Colombia

Sandra del Carmen Insuasty[1*], **Steven Ramos**[1], **Julián Mateus-Rodriguez**[1], **Carlos Marcillo**[1], **Vanesa López**[1], **Pedro Uribe**[1]

1 Obonuco Corpoica. * E-mail: sinsuasty@corpoica.org.co

Visibility: The challenge of the Latin American Potato Journal

Julio Gabriel[1,2*], **Marcelo Huarte**[3], **Elisa Salas**[4,5]

1 Latin American Potato Journal; 2 Universidad Estatal del Sur de Manabí (UNESUM), Ecuador; 3 Latin American Potato Association, Mar del Plata, Argentina ; 4 Latin American Potato Association; 5 International Potato Center, Lima, Peru. * E-mail: j.gabriel@proinpa.org, julio.gabriel@unesum.edu.ec

Study about the knowledge and consumption of native potatoes in university students of a private university in Lima, Peru

Luciana De La Fuente[1], **Miriam Perez**[1], **Ana Muñoz**[1], **Lillyan Loayza**[1], **Juana Zavaleta**[1], **José Gómez**[1], **Alan Portugal**[1], **Grimaldo Febres**[1], **Luis Aguilar**[1*]

1 Universidad San Ignacio de Loyola. * E-mail: laguilar@usil.edu.pe

Preliminary study of production sustainability and consumption of Peruvian native potatoes

Andrew Gibbon[1*]

1 Le Cordon Bleu. * E-mail: Andrew.gibbon@cordonbleu.edu.pe

Trading margins in the value chain of CONPAPA – Ecuador

Magali García[1*], **Luis Montesdeoca**[2]; **Jaris Veneros**[3], **Manuelito Castro**[1]

1 Instituto de Investigación, Innovación y Desarrollo para el Sector Agrario y Agroindustrial de la Región Amazonas. IIDAA. Calle Universitaria N° 304. Chachapoyas- Perú; 2 Consorcio de Productores de Papa de la Región Central del Ecuador- CONPAPA. Av. El Cóndor y Batalla de Tarqui. Ambato-Ecuador; 3 Universidad Nacional Toribio Rodríguez de Mendoza- Amazonas. Facultad de Ingeniería

Civil y Ambiental. UNTRM- FICIAM. Calle Universitaria N° 304. Chachapoyas- Perú. * E-mail: 20140685@lamolina.edu.pe

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

Willy Pradel[1*], Victor Suarez[1], Guy Hareau[1], Luis Enrique Quintanilla Chacon[2], Catherine Larochelle[3], Catherine O'Donnell[3] and Jeffrey Alwang[3]

1 International Potato Center; 2 Instituto Nacional de Innovación Agraria – Perú; 3 Virginia Tech. * E-mail: w.pradel@cgiar.org

Technical Session C: Potato Variety Development & Biotechnology
Monday, 28 May – 14.30 - 17.30 hrs


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1. Chair: Ghislain Pelletier
Sustainable Agriculture Initiative (SAI) Platform and World Potato Congress Inc.
Board Director

2. Co-chair: Marc Ghislain
International Potato Center
Leader for The Game Changing Solutions, SSA Research, Kenya

Summary:
This session will provide the most recent progress on potato crop improvement from an industry and public-sector perspective. It will cover various topics such as the development of new varieties with tolerance and/ or resistance to biotic and abiotic stress, adaptation to climate change, biofortified potatoes, the potential of genetically-engineered potato varieties using trans / cisgenics and gene editing, regulatory and consumer acceptance barriers for the use of biotechnology, inbred line development for hybrid variety development, and the recent development in omics technology for accelerating potato variety development. We anticipate the presenters will address the justification for crop improvement in the context of climate change, reduction in the use of chemical inputs, nutritional improvement of the potato, reduction of post-harvest losses, and increase of income for potato farmers.

Selected Oral Presentations

Technical Session C: Potato Variety Development & Biotechnology

QTL analysis reveals quantitative resistant loci for *Phytophthora infestans* and Tecia solanivora in tetraploid potato

Juan David Santa Sepúlveda[1], Jhon Berdugo-Cely[1], Liliana Cely-Pardo[1], Mauricio Soto-Suárez[1], Teresa Mosquera-Vásquez[2] and Carlos Galeano[1*]

1 Corpoica; 2 Universidad Nacional de Colombia. * E-mail: cgaleano@corpoica.org.co

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Candidate Gene Detection for abiotic and biotic stresses and Association Mapping for marker assisted selection of useful potato germplasm adapted to the stresses caused by climate change

Enrique Ritter[1*], Alba Alvarez[1], Jose Ignacio R. de Galarreta[1], Enrique F. Northcote[2], Xavier Cuesta[3], Antonio León[4] and Leire Barandalla[1]

1 NEIKER - Instituto Vasco de Investigación y Desarrollo Agrario, Vitoria, España; 2 Universidad Agraria La Molina, Lima, Perú; 3 INIAP, Sta Catalina, Ecuador; 4 USFQ, Quito, Ecuador. * E-mail: eritter@neiker.eus

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New opportunities to achieve disease-free potato using gene technologies

Marc Ghislain[1*], Jacek Hennig[2] and Jonathan Jones[3]

1 International Potato Center (CIP), Lima; 2 Institute of Biochemistry and Biophysics, Polish Academy of Sciences; 3 The Sainsbury Laboratory, Norwich Research Park. * E-mail: m.ghislain@cgiar.org

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Potato biofortification: introduction of genetic gains for iron and zinc concentration from a diploid population to advanced disease resistant tetraploid potatoes

Elisa Salas[1*], Walter Amoros[1], Gabriela Burgos[1], Thomas Zum Felde[1] and Merideth Bonierbale[1]

1 International Potato Center (CIP), Lima. * E-mail: e.salas@cgiar.org

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Practical genome based approaches to augment breeding new potato varieties

Denis Griffin[1*], Stephen Byrne[1], Fergus Meade[1], Colum Kennedy[1], Francesca Mesiti[1], Jeanne Moore[1] and Dan Milbourne[1]

1 Teagasc. * E-mail: denis.griffin@teagasc.ie

Metabolic Engineering of Glycoalkaloid-Free Potatoes Accumulating Useful Steroidal Saponins by Genome Editing

Masaharu Mizutani[1*], Ryota Akiyama[1], Masaru Nakayasu[1], Hyoung-Jae Lee[1], Yukihiro Sugimoto[1], Shuhei Yasumoto[2], Satoru Sawai[2], Hikaru Seki[2], Kenji Asano[3], Keishi Osakabe[4], Yuriko Osakabe[4], Bunta Watanabe[5], Naoyuki Umemoto[6], Kazuki Saito[7] and Toshiya Muranaka[2]

1 Kobe University; 2 Osaka University; 3 Hokkaido agricultural research center, NARO; 4 Tokushima University; 5 Kyoto University; 6 Riken; 7 Chiba University. * E-mail: mizutani@gold.kobe-u.ac.jp

Hybrid potato shows same yields as commercial controls

Pim Lindhout[1*], Julia Stockem[1], Edwin Van Nieuwenhuizen[1], Menno Ter Maat[1] and Michiel De Vries[1]

1 Solynta. * E-mail: pim.lindhout@solynta.com

Selected Posters

Technical Session C: Potato Variety Development & Biotechnology

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

Yadunath Bajgai[1*], Tshering Dochen[1], Pema Wangchuk[1], Mohinder Kadian[2], Thomas Zum Felde[3], Lobzang Lobzang[1], Mathelde Lefebvre[4], Sushma Arya[5], Sangay Sangay[1] and Namgay Wangdi[6]

1 National Potato Program, Department of Agriculture, MoAF, Yusipang, Thimphu; 2 West & Central Asia (SWCA), International Potato Centre (CIP) Regional Office, New Delhi, India; 3 International Potato Center (CIP), Lima; 4 FAO/CIP Consultant; 5 South, West & Central Asia (SWCA), International Potato Centre (CIP) Regional Office, New Delhi, India; 6 RNR-Research and Development Sub-Centre, Khangma, DoA, MoAF. * E-mail: ybajgai@gmail.com

Host resistance in potato to three Globodera species

Jonathan Whitworth[1*], Richard Novy1, Inga Zasada[1], Xiaohong Wang[1], Louise-Marie Dandurand[2] and Joseph Kuhl[2]

1 USDA-ARS; 2 University of Idaho. * E-mail: jonathan.whitworth@ars.usda.gov

Construction of a cDNA library and amplicon sequencing for the detection of candidate genes for abiotic stress in potato

Enrique Ritter[1], Leire Barandalla[1], Jose Ignacio Ruiz de Galarreta[1] and Alba Alvarez[1]

1 NEIKER. * E-mail: eritter@neiker.eus

Development of durable resistance to late blight in Indonesia

Sandesh Dangi[1], Hui Duan[2], Ineu Sulastrini[3], Nicolas Champouret[2], David Douches[4] and Phillip Wharton[1*]

1 University of Idaho; 2 Simplot Plant Sciences; 3 Indonesia Vegetable Research Institute; 4 Michigan State University. * E-mail: pwharton@uidaho.edu

Lanosterol synthase-like is involved with differential accumulation of steroidal glycoalkaloids in potato tuber-flesh and leaves

Akhilesh Kumar[1], Richard E. Veilleux[2] and Idit Ginzberg[1*]

1 ARO, the Volcani Center; 2 Virginia Tech. * E-mail: iditgin@volcani.agri.gov.il

Disease resistance in potato – from marker discovery to applied breeding

Hannele Lindqvist-Kreuze[1*], Elisa Mihovilovich[1], Merideth Bonierbale[1], Marc Ghislain[1], Rosario Herrera[1], Leticia Portal[1] and Mariela Aponte[1]

1 International Potato Center (CIP), Lima. * E-mail: h.lindqvist-kreuze@cgiar.org

"Morada-Cica", a new variety of potato resistant to Phytophthora

Pompeyo Cosio[1] and Wilfredo Catalan[1*]

1 University San Antonio Abad of Cusco. * E-mail: wcatalanb@yahoo.es

Combining ability estimates from line xtester mating design in potato tetraploid (*Solanum tuberosum* L.)

Dante David Ponce Aguirre[1]

1 Universidad Nacional Daniel Alcides Carrion, Pasco. * E-mail: davidpnc9@gmail.com

Correlations of potato tuber traits between the seedling generation and the first field generation, as a function of pot and plot size

Emerson Lenz[1], Murilo Cerioli[1], Laerte Terres[1], Giovani Silva[2] and Arione Pereira[3*]

1 Universidade Federal de Pelotas; 2 Embrapa Hortaliças; 3 Embrapa Clima Temperado. * E-mail: arione.pereira@embrapa.br

Breeding and development of Globodera-resistant potato varieties with long tuber shape and russet skin for production in the western United States

Richard Novy[1*], Jonathan Whitworth[1], Joseph Kuhl[2], Louise-Marie Dandurand[2], Inga Zasada[1], Walter De Jong[3] and Xiaohong Wang[1]

1 USDA-ARS; 2 University of Idaho; 3 Cornell University. * E-mail: rich.novy@ars.usda.gov

Evaluation of Twenty-One Potato (*Solanum tuberosum*) genotypes to cold tolerance using methodologies of Visual Scale and Electrolyte Leakage

Esteban Espinosa[1*], Fernando Herrera[1], Dario Ramirez[1], Jorge Alvarez[1], Xavier Cuesta[2], Jorge Rivadeneira[2], Enrique Fernandez-Northcote[3], Enrique Ritter[4] and Antonio Leon[1]

1 Universidad San Francisco de Quito; 2 Instituto Nacional de Investigaciones Agropecuarias (INIAP); 3 Universidad Nacional Agraria La Molina; 4 NEIKER. * E-mail: estebanespinosacordova@gmail.com

Cryopreservation of andean potato shoot tips monitored by differential scanning calorimetry

Cesar Roque[1], Ariana Digilio[2], Javier Lecot[3], Lorena Deladino[3] and Aline Schneider Teixeira[3*]

1 Universidad Católica de Santa María; 2 INTA; 3 CIDCA-CONICET. * E-mail: aschneiderteixeira@gmail.com

Breeding for potato late blight resistance in Ecuador: Historical review

Xavier Cuesta[1*], Jorge Rivadeneira[1] and Hector Andrade[2]

1 Instituto Nacional de Investigaciones Agropecuarias (INIAP); 2 Universidad Central del Ecuador. * E-mail: x_cuesta@hotmail.com

Potato Breeding for Resistance / Tolerance to Late Blight and Low Temperatures in Ecuador

Jorge Esteban Rivadeneira Ruales[1*], Arturo Taipe[2], Segundo Yumisaca[1] and Xavier Cuesta[1]

1 Instituto Nacional de Investigaciones Agropecuarias (INIAP); 2 CIP. * E-mail: j.e.rivadeneirar@hotmail.com

Early selection of potato clones for processing quality

Dilson Bisognin[1*] and Zilmar da Silva Souza[2]

1 Universidade Federal de Santa Maria; 2 Empresa de Pesquisa Agropecuária e Extensão Rural de Santa Catarina. * E-mail: dbisognin@gmail.com

Understanding the inter-related genetics and physiology of Zn and Cd accumulation in northern European cultivated potato

Molla Mengist[1], Sheila Alves[1], Denis Griffin[1], Mike Mclaughlin[2] and Dan Milbourne[1*]

1 Teagasc; 2 University of Adelaide. * E-mail: dan.milbourne@teagasc.ie

Genotypes of potato F1 (andigenas x cultivars) selected in second cycle for resistance to Tecia solanivora (Povolný) and tolerance to *Phytophthora infestans*

Liliana Cely-Pardo[1*], Nancy Barreto-Triana[1], Juan David Santa Sepúlveda[1] and Olga Perez-Cardona[1]

1 Corpoica. * E-mail: ncely@corpoica.org.co

New potato cultivars (*Solanum tuberosum* L.) with resistant to late blight [*Phytophthora infestans* (Mont.) De Bary] and drought for Bolivia

Julio Gabriel[1*], Ada Angulo[2], Jury Magne[2], Carlos Bejarano[2] and Raúl Esprella[2]

1 Universidad Estatal del Sur de Manabí (UNESUM); 2 Fundación PROINPA. * E-mail: j.gabriel@proinpa.org

Molecular characterization of a collection of *Solanum tuberosum* L. Phureja group and S. tuberosum L. Tuberosum group obtained from sexual seed using Random Amplified Microsatellites

Carolina Martínez[1*] and Tulio Lagos[1]

1 Universidad de Nariño. * E-mail: caromar88@gmail.com

Breeding of potato cyst nematode resistant varieties in Japan

Kenji Asano[1*], Etsuo Shimosaka[1], Yoko Yamashita[2], Takashi Narabu[1], Satoshi Aiba[1], Kotaro Akai[1] and Seiji Tamiya[1]

1 Hokkaido agricultural research center, NARO; 2 Central Agricultural Experiment Station, HRO. * E-mail: asanok@affrc.go.jp

Generation of high-quality potato seeds through environmentally controlled conditions (CETS System) in Andean native varieties

Alfonso del Rio[1*], Celfia Obregon[2], John Bamberg[3], Janina Petrick[4], Raymond Bula[4] and Fernando de la Calle[5]

1 University of Wisconsin-US Potato Genebank; 2 ADERS-Peru/CITE Papa y otros Cultivos; 3 USDA-ARS; 4 CETS LLC; 5 CETS. * E-mail: adelrioc@wisc.edu

Marketable tuber yield stability of fourteen advanced potato clones (*Solanum tuberosum* L.) of pigmented pulp in Cutervo, Peru

Roberto Tirado[1], Roberto Tirado Lara[2*] and Juan Mendoza[3]

1 Universidad Nacional Faustino Sánchez Carrión; 2 Universidad Nacional Pedro Ruiz Gallo; 3 Departamento de Fitotecnia, Facultad de Agronomía, Universidad Nacional Agraria La Molina. * E-mail: hugotiradomalaver@gmail.com

Marker-assisted selection of Russian potato varieties and breeding clones

Tatjana Gavrilenko[1*], Olga Antonova[1], Natalia Klimenko[1], Ljudmila Kostina[1], Natalia Alpatieva[1], Ksenija Egorova[2] and Farangez Mamadbokirova[2]

1 N.I. Vavilov All-Russian Institute of Plant Genetic Resources (VIR); 2 Saint-Petersburg State University

* E-mail: tatjana9972@yandex.ru

Combined use of quantitative genomics and bulked segregant analysis to identify genes regulating starch content in potato tubers

Dorota Sołtys-Kalina[1*], Jadwiga Śliwka[1], Katarzyna Szajko[1], Iwona Wasilewicz-Flis[1] and Waldemar Marczewski[1]

1 Plant Breeding and Acclimatization Institute - National Research Institute, Młochów Research Centre, Platanowa 19, 05-831 Młochów. * E-mail: d.soltys@ihar.edu.pl

Somatic hybridization in potato breeding

Marie Greplova[1*], Hana Polzerova[1] and Jaroslava Domkarova[1]

1 Potato Research Institute Havlickuv Brod Ltd. * E-mail: greplova@vubhb.cz

Population structure of potato breeding germplasm from Embrapa-Brazil assessed with Single Nucleotide Polymorphism markers

Caroline M. Castro[1*]; Luis Felipe V. Ferrão[2]; Angela Rohr[3]; Natércia L. P. Lima[1]; Arione S. Pereira[1]; Antonio Augusto F. Garcia[2]

1Embrapa Clima Temperado, Pelotas, RS – Brasil; 2Universidade de São Paulo - ESALQ, Piracicaba, SP – Brasil; 3Universidade Federal de Santa Maria, Departamento de Biologia, Santa Maria, RS – Brasil

* E-mail: caroline.castro@embrapa.br

Genetic improvement for Colorado potato beetle resistance in cultivated potato using wild Solanum relatives

Jamuna Paudel[1*], Kyle Gardner[1], Chandra Moffat[1], Benoit Bizimungu[1], Catherine Clark[1], Yvan Pelletier[1], George Tai[1], Kraig Worrall[1], Larry Calhoun[2], Jun Song[1], Leslie Campbell[1], David De Koeyer[1] and Helen Tai[1*]

1 Agriculture and Agri-Food Canada; 2 University of New Brunswick. * E-mail: helen.tai@agr.gc.ca

Parametric stability and genotype by environment interaction analyses for tuber yield and specific gravity in diploid potato (*Solanum tuberosum* Group Phureja)

Johan Sebastian Urquijo Ruiz[1*], Aquiles Darghan[1] and Luis Ernesto Rodriguez[1]

1 Universidad Nacional de Colombia. * E-mail: jsurquijor@unal.edu.co

Gene expression biomarkers for prediction of nitrogen-related yield and specific gravity in potato

Mia Parenteau[1], Bernie Zebarth[2], Athyna Cambouris[2], Alison Nelson[2], Judith Nyiraneza[2], Jose Hector Galvez[3], Martina Stromvik[3], Martin Lague[2], Hong Gu[1] and Helen Tai[2*]

1 Dalhousie University; 2 Agriculture and Agri-Food Canada; 3 Mc Gill University. * E-mail: helen.tai@agr.gc.ca

Frying quality of elite potato clones in south of Brazil

Fernanda Quintanilha Azevedo[1*], Francieli Cima[2], Tuane Araldi[2], Raquel Kneib[2], Daiana Wolter[2] and Arione Pereira[3]

1 Embrapa Clima Temperado; 2 Universidade Federal de Pelotas/PPGA; 3 Embrapa. * E-mail: fernanda.azevedo@embrapa.br

Local breeding to develop potato varieties with increased resistance against limiting production factors in Costa Rica

Arturo Brenes[1] and Luis Gómez[1]

1 Universidad de Costa Rica. * E-mail: arturo.brenes@ucr.ac.cr

Enhancing capabilities for potato and sweetpotato research in China and Asia-Pacific: the case of CCCAP

Alberto Maurer[1*], Xiaoping Lu1 and Li Min[1]

1 CIP-China Center for Asia-Pacific – CCCAP. * E-mail: a.maurer@cgiar.org

Development of new diploid varieties resistant to powdery scab in Colombia

Jose Miguel Cotes Torres[1], Elena Paola González Jaimes[2] and Carlos-Eduardo Ñústez[1]

1 Universidad Nacional de Colombia; 2 Politécnico Colombiano Jaime Isaza Cadavid. * E-mail: jmcotes@unal.edu.co

Obtaining new Potato Varieties with Late Blight Resistance and Adaptation to Climate Change, using the Participatory Varietal Selection

Noemi Zuñiga[1*], Manuel Gastelo[2] and Carolina Bastos[2]

1 Instituto Nacional de Investigaciones Agricolas (INIA); 2 Centro Internacional de la Papa. * E-mail: zunigaluz@yahoo.com

Technical Session D: Potato Pest and Diseases
Tuesday 29 May – 10.30 – 14.50 hrs


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1. Chair: John Jamieson
Deputy Minister of Agriculture and Fisheries
Prince Edward Island, Canada

2. Chair: Jonathan Jones
The Sainsbury Laboratory UK
Professor

3. Co-chair: Jan Kreuze
International Potato Center
Leader, Crop Protection Division

Summary:
Pests and diseases are among major constraints to potato production worldwide. Global trade is already significantly exacerbating the spread and impact of pest and diseases worldwide, but changing climates will further alter and contribute to the emergence of new pest and disease threats as well as to increased infestations and yield losses This technical session will address significance of climate change highlighting advances and new approaches in all aspects of potato pest and disease management including monitoring, diagnostics, advanced predictions of risks through modeling, population dynamics and epidemiology, decision support systems and integrated pest and disease management.

Selected Oral Presentations

Technical Session D: Potato Pest and Diseases

Development and application of biopesticides for management of multiple pests of potatoes

Julie Versman[1*]

1 Marrone Bio Innovations. * E-mail: jversman@marronebio.com

Naturally occurring soil-borne Bacillus spp. and Pseudomonas spp. with versatile antagonistic activities against *Phytophthora infestans* and other potato pathogens

Simon Caulier[1], Annika Gillis[1], Gil Colau[1], Florent Licciardi[1], Maxime Liépin[1], Nicolas Desoignies[2], Pauline Modrie[1], Anne Legrève[1], Jacques Mahillon[1] and Claude Bragard[1*]

1 Université Catholique de Louvain-la-Neuve; 2 Haute École provinciale de Hainaut Condorcet * E-mail: claude.bragard@uclouvain.be

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Isolation and field deployment of novel Rpi genes against *Phytophthora infestans*

Jonathan Jones[1*]

1 Sainsbury Lab. * E-mail: jonathan.jones@tsl.ac.uk

Phosphite Fungicide for Protection of Potato Leaves and Tubers Against *Phytophthora infestans*

Gefu Wang-Pruski[1*], Zengrong Huang[2] and Zhizhong Zhang[3]

1 Faculty of Agriculture, Dalhousie University; 2 College of Resources and Environment, Fujian Agriculture and Forestry University; 3 College of Horticulture, Fujian Agriculture and Forestry University. * E-mail: gefu.wang-pruski@dal.ca

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Peruvian Potato Virome: why we need to know more

Segundo Fuentes[1*], Ana Perez[1] and Jan Kreuze[1]

1 International Potato Center (CIP). * E-mail: s.fuentes@cgiar.org

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Bacterial wilt of potato in Sub-Saharan Africa - new perspectives on an old disease

Kalpana Sharma[1*], Monica L. Parker[1], Bruce Ochieng[1], Abdulwahab Abdurahman[1], Jan Kreuze[2], George Nugundo[3] and Elmar Schutle-Geldermann[1]

1CGIAR Research Program on Roots, Tubers and Bananas (RTB), International Potato Center (CIP), Nairobi, Kenya; 2CGIAR Research Program on Roots, Tubers and Bananas (RTB), International Potato Center (CIP), Lima, Peru; 3Kenya Plant health inspectorate Service (KEPHIS), Nairobi, Kenya. *E-mai: kalpana.sharma@cgiar.org

Impact of climate change on potato pests in the Andean region

Jurgen Kroschel[1*], Birgit Schaub[2], Norma Mujica[1] and Pablo Carhuapoma[1]

1 International Potato Center; 2 University of Hohenheim, Institute of Phytomedicine. * E-mail: j.kroschel@cgiar.org

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The potato psyllid Bactericera cockerelli (Hemíptera: Triozidae): Does it move between hosts?

Carmen Castillo[1,2*], Zhen Fu[1] and William Snyder[1]

1Department of Entomology, Washington State University, Pullman, WA 99164, USA; 2Instituto Nacional de Investigaciones Agropecuarias, Ecuador (INIAP). * E-mail: carmen.castillo@iniap.gob.ec

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Early Warning of Late Blight Using Passive Spore Traps

Eugenia Banks[1*] and Kevin Brubacher[1]

1 Ontario Potato Board. * E-mail: eugeniabanks@onpotato.ca

Selected Posters

Technical Session D: Potato Pest and Diseases

Characterization of physiological races of *Phytophthora infestans* (Mont.) de Bary in Spain

Nestor Alor[1] and Jose Ignacio Ruiz De Galarreta[1*]

1 NEIKER. * E-mail: jiruiz@neiker.eus

Monitoring black dot and silver scurf in commercial potato crops from plantation to shop shelf

Andreas Keiser[1*], Martin Häberli[1], Benno Jungo[1], Elena Dubois Gill[1], Jürg Moser[1] and Patrice de Werra[1]

1 School of Agricultural, Forest and Food Sciences HAFL, Bern University of Applied Sciences BFH. * E-mail: andreas.keiser@bfh.ch

Globodera Alliance (GLOBAL): Risk Assessment and Eradication of Globodera spp. in U.S. Production of Potato

Louise-Marie Dandurand[1], Glenn Bryan[2], Vivian Blok[2], Walter De Jong[3], Dee Denver[4], Pamela Hutchinson[1], John Jones[2], Joseph Kuhl[1*], Christopher Mcintosh[1], Benjamin Mimee[5], Richard Novy[6], Mike Thornton[1], Xiaohong Wang[6], Jonathan Whitworth[6] and Inga Zasada[6]

1 University of Idaho; 2 James Hutton Institute; 3 Cornell; 4 Oregon State University; 5 Agriculture and Agri-Food Canada; 6 USDA-ARS. * E-mail: jkuhl@uidaho.edu

Potential source of tolerance and resistance to zebra chip disease in potato genotypes

Regina Karin Cruzado[1], Mahnaz Rashidi[2], Nora Olsen[1], Richard Novy[3], Erik Wenninger[1], Nilsa Bosque-Perez[1] and Arash Rashed[1*]

1 University of Idaho; 2 University of Florida; 3 USDA-ARS. * E-mail: arashed@uidaho.edu

A temperature responsive transmission model for the Potato yellow vein virus-Trialeurodes vaporariorum- potato pathosystem

Heidy Gamarra[1*], Luis Cumapa[2], Pablo Carhuapoma[1], Gladys Gonzales[3], Jorge Muñoz[4], Arnulfo Gutierrez[4], Monica Guzman-Barney[5], Juergen Kroschel[1] and Jan Kreuze[1]

1 International Potato Center (CIP); 2 Universidad Nacional Agraria La Molina; 3 Instituto de Investigación Agropecuaria de Panamá (IDIAP); 4 Instituto Nacional de Investigaciones Agropecuarias (INIAP); 5 Universidad Nacional de Colombia. * E-mail: h.gamarra@cgiar.org

Phenology of the potato psyllid, Bactericera cockerelli (Hemiptera: Triozidae), and "Candidatus Liberibacter solanacearum" in commercial potato fields in Idaho, USA

Erik Wenninger[1*], Jennifer Dahan[1], Alex Karasev[1], Mike Thornton[1], Jeff Miller[2], Philip Nolte[1], James Woodhall[1], Kasia Duellman[1], Nora Olsen[1], Amy Lockner[1] and William Price[1]

1 University of Idaho; 2 Miller Research, LLC. * E-mail: erikw@uidaho.edu

Identification of regulated genes differentially of resistant and susceptible potato varieties during infection by Globodera pallida

Hans Carreño[1*], Olga Ponce[1] and Edgar Neyra[1]

1 Universidad Peruana Cayetano Heredia. * E-mail: hans.carreno.f@upch.pe

Finding and use of late blight resistance genes from potato relatives

Marta Brylińska[1], Emil Stefańczyk[1], Paulina Smyda-Dajmund[1], Jarosław Plich[1], Sylwester Sobkowiak[1] and Jadwiga Śliwka1*

1 Plant Breeding and Acclimatization Institute - National Research Institute. * E-mail: j.sliwka@ihar.edu.pl

Effect of acquisition access period, retention time and inoculation access period on transmission efficiency of Potato yellow vein virus by Trialeurodes vaporariorum

Anngie Hernández[1*], Diana Torres[1] and Olga Perez-Cardona[1]

1 Corporación Colombiana de Investigación Agropecuaria–Corpoica. * E-mail: akhernandez@corpoica.org.co

Reproductive fitness of Meloidogyne hapla on eleven potato cultivars

Adrienne Gorny[1*], Frank Hay[1] and Sarah Pethybridge[1]

1 Cornell University. * E-mail: amg444@cornell.edu

Resistance of potato cultivars as a determinant factor of potato virus Y (PVY) epidemiology

Brice Dupuis[1*], Claude Bragard[2] and Olivier Schumpp[1]

1 Agroscope; 2 Université Catholique de Louvain-la-Neuve. * E-mail: brice.dupuis@agroscope.admin.ch

Factors of expression of Rhizoctonia stem canker in potato plants as an integrated management risk assessment

Ivette Acuña[1*], Camila Sandoval[1] and Rodrigo Bravo[1]

1 Instituto de Investigaciones Agropecuarias, INIA Chile (National Institute for Agricultural Research, INIA Chile). * E-mail: iacuna@inia.cl

Development of an immunochromatographic test kit for the presence of Clavibacter michiganensis subsp. sepedonicus

Wlodzimierz Przewodowski[1*] and Agnieszka Przewodowska[1]

1 Plant Breeding and Acclimatization Institute - National Research Institute, Bonin Research Center *E-mail: w.przewodowski@ihar.edu.pl

Resistance of potato varieties to golden cyst nematodes (Globodera rostochiensis Woll.) isolated from south of Chile

Manuel Muñoz[1], Pamela Tejeda[1], Carolina Folch[1], Ivette Acuna[1], Andrés France[1] and Sandra Orena[1]

1 Instituto De Investigaciones Agropecuarias INIA. * E-mail: manuel.munozd@inia.cl

Physical and chemical factors of the soil that affect the biology of the potato cyst nematode (Globodera spp.) In Colombia

Ginna Cruz[1*], Diego Rojas[1] and Olga Perez-Cardona[1]

1 Corporación Colombiana de Investigación Agropecuaria – Corpoica. * E-mail: gcruz@corpoica.org.co

Current distribution of the potato bacterial wilt pathogen Ralstonia solanacearum in Peru

Liliam Gutarra[1], Juan Herrera[1], Jan Kreuze[1] and Hannele Lindqvist-Kreuze[1*]

1 International Potato Center (CIP). * E-mail: h.lindqvist-kreuze@cgiar.org

Phosphonate fungicides enhance host resistance to late blight in potato

Elmar Schulte-Geldermann[1*], Bruce Ochieng[1] and Elly Atieno[1]

1 International Potato Center (CIP). * E-mail: e.schulte-geldermann@cgiar.org

Fungicides sensitivity of *Phytophthora infestans* isolates to systemic fungicides in potato-growing regions of the central highlands of Colombia

Natalia Guayazan[1], Catalina Chavez[1], María C. Rodriguez[1], Maria C. Orozco[1], Angie Cordoba[1], Carlos Posada[1], Mayra Parra[1], María F. Mideros[1], Carlos-Eduardo Ñústez[2] and Silvia Restrepo[1*]

1 Universidad de los Andes. * E-mail: srestrep@uniandes.edu.co

Technical Session E: Potato Crop Management
Tuesday 29 May – 10.30 – 14.50 hrs


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1. Chair: David Thompson
World Potato Congress Inc.
Director

2. Co-chair: Marcelo Huarte
Former INTA
Private consultant

Summary:
Basic and applied information for high yielding, environmentally sustainable and economically profitable potato crops is presented in this session. New research and technology that may have a positive impact on the potato industry is presented, keeping in mind that growers and agronomists deal with crops that require high investment and skill to produce in a sustainable way. Special interest is given to precision farming, soil preparation under conservational premises, models for fertilizer and irrigation scheduling, variety specific management techniques, quality management certification issues, digital farming, rational pesticide application and other technologies oriented to maximize yield and quality in an environmentally and economical sustainable way. The nine oral presentations reflect modern and innovative aspects related to potato crop management. Five of them consider water supply in relation to yield, efficiency of fertilizer uptake and modelling of crop growth. Aspects of ecophysiology, fungicide and growth regulators utilization are considered in both field and aeroponical crops. Most presentations relate those agronomic aspects with tuber quality for processing. Presentations come from Argentina, Belgium, India, Indonesia, The Netherlands, Peru, and three from the United States.
The seventeen posters selected for this World Potato Congress/ALAP also have a strong innovative characteristic in many aspects of crop management, such as soil management, irrigation, fertilizer application, microbial activity under different soil management practices, greenhouse management for prebasic seed production, and deployment of national varieties in small farmer's fields. Poster presentations come from Brazil (5), Canada, Colombia (2), Iran, Italy (2), Latvia, Peru, United Kingdom and Uruguay.

Selected Oral Presentations

Technical Session E: Potato Crop Management

Deficit Irrigation and Reduced Nitrogen Fertilizer Use in Irrigated Potato Production Systems

Samuel Essah[1*]

1 Colorado State University. * E-mail: samuel.essah@colostate.edu

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Increasing nitrogen fertilizer and water use efficiency for potato in Florida

Andre Da Silva[1], Lincoln Zotarelli[1*] and Michael Dukes[1]

1 University of Florida. * E-mail: lzota@ufl.edu

Infrared radiometry as a tool for early detection of water stress: Insights into its use for establishing irrigation calendars in potato

Javier Rinza Díaz[1], David Ramirez[1*], Jeronimo Garcia[2], Felipe De Mendiburu[2], Wendy Yactayo[1], Carolina Barreda[1], Teresa Velasquez[2], Abel Mejia[2] and Roberto Quiroz[1]

1 International Potato Center (CIP), Lima; 2 Universidad Nacional Agraria La Molina. * E-mail: d.ramirez@cgiar.org

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"WatchITgrow", monitoring potatoes from space

Isabelle Piccard[1*] and Jürgen Decloedt[1]

1 VITO. * E-mail: isabelle.piccard@vito.be

Eco-physiological yield determinants of potato processing varieties

Diego Hugo Santos[1], Juan Pablo Monzon[2], Daniel Caldiz[3*], Fernando Andrade[4] and Silvia Capezio[1]

1 Universidad Nacional de Mar del Plata; 2 CONICET; 3 McCain Foods Limited; 4 INTA. * E-mail: dcaldiz@mccain.com.ar

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Reduced efficacy of fluazinam against *Phytophthora infestans* in the Netherlands

H.T.A.M. Schepers[1*], G.J.T. Kessel[2], M. F. Lucca[3], M.G. Förch[2], G.B.M. van den Bosch[2], C.G. Topper[1] and A. Evenhuis[1]

1 Wageningen University & Research, Lelystad, the Netherlands; 2 Wageningen University & Research, Wageningen, the Netherlands; 3 Potato Research Group, National Agricultural Technology Institute (INTA), Balcarce Argentina. * E-mail: huub.schepers@wur.nl

Effects of irrigation regimes on tuber yield and quality characteristics of potato under Mediterranean climate

Anita Ierna[1*], Alessandra Pellegrino[1], Salvatore La Rosa[1], Irene Longo[1], Valeria Cavallaro[1] and Ezio Riggi[1]

1 C.N.R. – IVALSA Sede di Catania, via Gaifami 18– 95126 Catania, Italy. * E-mail: anita.ierna@cnr.it

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Evaluation of Microbial Activity in Soil under Different Management Methods, with Addition of Organic Material with Deep or Conventional Amendment

Juliana Zucolotto[1], Roberto Takahashi[1*], Paulo Melo[1] and Elke Cardoso[1]

1 UNIVERSITY OF SÃO PAULO. * E-mail: rtakahashi@usp.com.br

Evaluation of benefits and losses of minitubers production as affected by increased potato in vitro plants density under greenhouse conditions

Ilze Dimante[1*] and Zinta Gaile[2]

1 Latvia University of Agriculture, Institute of Agricultural Resources and Economics; 2 Latvia University of Agriculture. * E-mail: ilze.dimante@arei.lv

Selected Posters

Technical Session E: Potato Crop Management

Development of PCM, a web-based potato yield and tuber size forecasting system for applied use

David Firman[1*], Marc Allison[1] and Mario Caccamo[2]

1 NIAB CUF; 2 NIAB EMR. * E-mail: david.firman@niab.com

Chlorophyll content and chlorophyll fluorescence response of potato under different nitrogen rate

Anita Ierna[1], Salvatore La Rosa[1] and Irene Longo[1]

1 C.N.R. – IVALSA Sede di Catania, via Gaifami 18– 95126 Catania, Italy. * E-mail: anita.ierna@cnr.it

Potato Productivity and Greenhouse Gases Emissions under varying Nitrogen Management in Southern Alberta, Canada

Guillermo Hernandez Ramirez[1*], Michele Konschuh[2], Shelley Woods[2], Dmytro Yevtushenko[3], Len Kryzanowski[2]

1 University of Alberta (Renewable Resources); 2 Alberta Agriculture and Forestry; 3 University of Lethbridge. * E-mail: ghernand@ualberta.ca

Potassium Acetate as Source of Potassium Fertilizer Enhances Potato Tuber Yield and Quality

Samuel Essah[1*]

1 Colorado State University. * E-mail: samuel.essah@colostate.edu

Conservation farming practices for potato production in the Sandveld region of South Africa – A four year review

Jacques Van Zyl[1*]

1 Western Cape Department of Agriculture. * E-mail: jacquesvz@elsenburg.com

Influence of the deep soil preparation associated with succession of maize in the production of potato tubers

Juliana Zucolotto[1*], **Paulo Melo**[1], **Alexandre Yassuda**[1], **Guilherme Polonio**[1] **and Marcos Badaró**[1]

1 UNIVERSITY OF SÃO PAULO. * E-mail: julianazucolotto@gmail.com

Shoot Growth and Tuber Yield of Potato Crop as Affected by Plant Growth Regulator and Nitrogen Supply

Adalton Mazetti Fernandes[1*], **Luan S. de Oliveira**[2], **Rogério Peres Soratto**[3], **Victor Dognani**[4]

1 São Paulo State University (UNESP), Center for Tropical Roots and Starches (CERAT); 2 São Paulo State University (UNESP), College of Agricultural Sciences; 3 São Paulo State University (UNESP), Department of Crop Science, College of Agricultural Sciences; 4 Associação Educacional do Vale da Jurumirim. * E-mail: adalton@cerat.unesp.br

Tuber Yield of Agata Potato Cultivar in Response to Nitrogen Fertilizer Management

Natália Silva Assunção[1*], **Adalton Mazetti Fernandes**[2], **Rogério Peres Soratto**[3], **Lydia Helena Da S. De O. Mota**[1]

1 São Paulo State University, College of Agricultural Sciences; 2 São Paulo State University, Center for Tropical Roots and Starches; 3 São Paulo State University, Department of Crop Science, College of Agricultural Sciences. * E-mail: nataliaassuncao.ufv@gmail.com

Effect of vermicompost of sewage sludge on potato plants (*Solanum tuberosum* L.)

Martha Elena Mora[1*], **Diana Yatzil Reyes-Araujo**[2], **Jorge Alberto Lugo-de La Fuente**[2] **and Pedro Del Aguila**[2]

1 Centro Universitario Tenancingo, UAEMEX; 2 Universidad Autónoma del Estado de México. * E-mail: marthaelenam@gmail.com

Nitrogen reduction of nutrient solution on minitubers seed potato production in aeroponic system

Thiago Factor[1*], **Alex Calori**[2], **Luis Purquerio**[3], **José Feltran**[3], **Eduardo Watanabe**[1], **Sally Blat**[1] **and Humberto Araújo**[1]

1 Apta; 2 Aeropônica; 3 IAC. * E-mail: factor@apta.sp.gov.br

Yield evaluation in three varieties of potato using two methods for late blight *Phytophthora infestans* control, in three localities of Colombia

Eduardo Espitia Malagon[1*], Wilmar Alexander Wilches Ortiz[1] and Ruy Edeymar Vargas Diaz[1]

1 Corpoica. * E-mail: eespitia@corpoica.org.co

Effect of foliar application of Mg+Mn gluconate on chlorophyll contents and tuber yield in yellow diploid potato (*Solanum tuberosum* Group Phureja)

Luis Ernesto Rodriguez[1*], Kristal Castellanos[1], Harverth Silva[1] and Carlos Eduardo Ñústez[1]

1 Universidad Nacional de Colombia. * E-mail: lerodriguezmo@unal.edu.co

Production and Multiplication of National Potato Varieties in Family Farming Systems

Paula Colnago[1*], Francisco Vilaró[2] and Pablo González[1]

1 Facultad de Agronomía, Universidad de la República; 2 Instituto Nacional de Investigación Agropecuaria (INIA, Uruguay). * E-mail: paula.colnago@gmail.com

From farm-saved seed to quality declared planting material – a case study from Ethiopia

Elmar Schulte-Geldermann[1*], Gebremedhin Woldegiorgis[2], Gebrehiwot Hailemariam[1], Berga Lemaga[1] and Steffen Schulz[3]

1 International Potato Center (CIP); 2 Ethiopian Institute of Agricultural Research, Holetta Agricultural Research Center; 3 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Sustainable Land Management Programme (SLM). * E-mail: e.schulte-geldermann@cgiar.org

Response of Seed Tubers Containing Dicamba and Glyphosate Residues

Andy Robinson[1,2*], Nelson Geary[1] and Harlene Hatterman-Valenti[1]

1 North Dakota State University; 2 University of Minnesota. * E-mail: andrew.p.robinson@ndsu.edu

Soil microbial diversity of native potato under conventional and non- conventional tillage: taxonomic and functional approach using whole genome sequencing

Aura Liz Garcia Serquén[1*], Julio César Chávez Galarza[1] and Cinthya Zorrilla Cisneros[1]

1 Instituto Nacional de Innovación Agraria. * E-mail: auralizgarcia@gmail.com

Feasibility improvement of emergence of buds and yield indices of different cultivars of minituber potato influenced by different composition of planting bed and cultivation methods in greenhouse condition

Farshid Hassani[1*]

1 Seed and Plant Certification and Registration Institute (SPCRI), Agricultural Research Education and Extension Organization (AREEO), Tehran, Iran. * E-mail: farshid.shz@g,mail.com

Technical Session F: Post harvest & Processing Technology
Tuesday 29 May – 10.30 – 11:30 hrs


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1. Chair: Nora Olsen
University of Idaho
Professor and Extension Potato Specialist

2. Co-chair: Daniel Caldiz
McCain Foods
Director Global Agronomy R&D

Summary:
Potatoes are grown worldwide to supply different markets and needs. They are grown, either by small growers in the Andes to large agricultural companies in the north hemisphere. However, no matter who grows the crop, different varieties need to be stored for variable periods of time and under different conditions. If the crop is not properly manage during the post-harvest period most yield gain in the field could be lost during storage. Then, suitable storage conditions and management are a must in order to supply the market and processing companies, with tubers of the right quality to be consumed directly, or processed into chips, crisps, flakes and other by-products. This session will deal with: (a) factors and processes related to post-harvest and storage management, under different environments and with different purposes; (b) processing technologies that could range from very simple process to state of the art technologies, such as new peeling, cutting and other implements, defect detection, and camera vision system, among others.

Selected Oral Presentations

Technical Session F: Post harvest & Processing Technology

The Reality of Food Losses: A New Measurement Methodology

Luciana Delgado[1*], Monica Schuster[2] and Maximo Torero[3]

1 International food policy research institute; 2 Institute of Development Policy (IOB) University of Antwerp; 3 World Bank. * E-mail: luciana.delgado@cgiar.org

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Effect of the storage condition (time and temperature) on some quality parameters of native colored fleshed potatoes and a commercial potato

Ana Cecilia Silveira[1*], Alejandra Sepúlveda[2], Denisse Oyarzún[2] and Víctor Escalona[2]

1 Poscosecha de Frutas y Hortalizas, Dpto. Producción Vegetal, Facultad de Agronomía, Universidad de la República. Avda. Garzón, 780, Montevideo, Uruguay; 2 Centro de Estudios Postcosecha, Facultad de Ciencias Agronómicas, Universidad de Chile. Avda. Santa Rosa 11315, La Pintana, Santiago, Chile. * E-mail: acsilver@fagro.edu.uy

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Dormancy models to optimize the storage of various potato cultivars

Margot I. Visse[1*], Hervé Vanderschuren[2], Hélène Soyeurt[3] and Brice Dupuis[4]

1 Agroscope, Institute for Plant Production Sciences (Switzerland) & Plant Genetics Lab, Gembloux Agro-Bio Tech, University of Liège (Belgium); 2 Plant Genetics Lab, Gembloux Agro-Bio Tech, University of Liège; 3 Statistics, Informatics and Applied Modelling (SIMA) Lab, AGROBIOCHEM department, Gembloux Agro-Bio Tech, University of Liège; 4 Agroscope, Institute for Plant Production Sciences. * E-mail: margot.visse@agroscope.admin.ch

Selected Posters

Technical Session F: Post harvest & Processing Technology

The response of potato (*Solanum tuberosum*) to vacuum impregnation

Yudy Duarte[1], Melisa Jaramillo[2], Misael Cortés[2] and Oscar Vega[1*]

1 Universidad de Antioquia; 2 Universidad Nacional de Colombia. * E-mail: oscar.vega@udea.edu.co

Effect of different cooking methods on phytochemical concentration of pigmented potato cultivars

Jose Ignacio Ruiz De Galarreta[1*] and Roberto Tierno[1]

1 NEIKER. * E-mail: jiruiz@neiker.eus

Innovations and research advances for more efficient and sustainable storages

Michel Martin[1*]

1 ARVALIS-Institut du vegetal. * E-mail: m.martin@arvalis.fr

Potential of hyperspectral imaging for potato cultivars classification based on their processing aptitude

Ainara Lopez[1], **Claudia Perez**[1], **Jose Ignacio Ruiz de Galarreta**[2], **Silvia Arazuri**[1] **and Carmen Jaren**[1*]

1 PUBLIC UNIVERSITY OF NAVARRA; 2 NEIKER. * E-mail: cjaren@unavarra.es

Maintenance of consumption quality in dehydrated potato of a long storage period

Dilson Bisognin1* and Marlene Lovatto1*

1 Universidade Federal de Santa Maria. * E-mail: dbisognin@gmail.com

Effect of growing technology on acrylamide precursor content in potato tubers

Jaroslav Cepl[1*] **and Pavel Kasal**[1]

1 Potato Research Institute. * E-mail: cepl@vubhb.cz

Assessing food losses in the potato value chain in Ecuador and Peru

Claudio Velasco[1*], **Andre Devaux**[1] **and Miguel Ordinola**[1]

1 International Potato Center. * E-mail: c.velasco@cgiar.org

Agricultural mechanization: The need for speed of future development

Konrad Broxtermann[1*] **and Frank Nordmann**[1]

1 Grimme Landmaschinenfabrik GmbH & Co KG. * E-mail: k.broxtermann@grimme.de

A Review of North American and International Potato Storage Recommendations

Todd Forbush[1*]

1 Techmark, Inc. * E-mail: tforbush@techmark-inc.com

Technical Session G and H: Potato Biodiversity and its use in Breeding, Nutrition and Health
Tuesday 29 May – 11.30 – 14.50 hrs


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1. Chair: Daniel Caldiz
McCain Foods
Director Global Agronomy R&D

2. Co-chair: Alfonso del Rio
University of Wisconsin
Senior Scientist

Summary:
Potato is the world's 4th most important food crop (after maize, wheat and rice) in terms of production and area cultivated. Reports indicate that the nutritive value of potato per unit of land is 2 or 3 times that of cereals and that it provides more calories, vitamins and nutrients per unit of land than other staple crops. These top four crops supply a greater part of the world's diet than the next 26 ranked crops combined. Potato biodiversity in the form of cultivated potato varieties and landraces, along with their wild relatives, offer a valuable, unique, and diverse source of genetic variation. This has historically provided various traits which have been used for advances in potato breeding and in basic sciences. In fact, these important sources of genetic variation have played critical roles to create modern varieties with enhanced adaptation to emerging diseases, pests, changing environmental stresses (e.g., due to climate change) and changing consumer preferences and needs (e.g., enhanced nutritional benefits). Therefore, initiatives to foster dialogue and to integrate global efforts are encouraged to identify what's next in potato research so that we may be able to outline new strategies for better manage and use potato biodiversity in the face of new challenges.

Selected Oral Presentations

Technical Session G and H: Potato Biodiversity and its use in Breeding, Nutrition and Health

Genome Wide Association Mapping to Uncover the Genetic Architecture of Morphology in Tetraploid Peruvian Native Potato

Laura Shannon[1*], René Gómez[2], Julian Soto[2], Noelle Anglin[2], David Ellis[2] and Jeffrey Endelman[3]

1 University of Minnesota; 2 International Potato Center (CIP), Lima; 3 University of Wisconsin. * E-mail: lmshannon@umn.edu

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Natural starch digestive enzyme inhibitors from potato peels and their influence on glycemic response

Chen Chen[1], Steven Mcgeehan[1], Mike Thornton[1] and Amy Lin[1*]

1 University of Idaho. * E-mail: amylin@uidaho.edu

Screening for resistance mechanisms to Myzus persicae in potato wild relatives from Salta, Argentina

Sabrina Cortez[1*], Agustin López Gialdi[1], Cristina Machado-Assefh[1] and Adriana Alvarez[1]

1Universidad Nacional de Salta. * E-mail: sabricortez3012@gmail.com

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Towards an Increased Understanding of Genetic Relatedness in Cultivated Potato

D. Ellis[1*], R. Gomez[1], J, Soto[1], O. Chavez[1] and N. L. Anglin[1]

1 International Potato Center, Lima, Peru. * E-mail: d.ellis@cgiar.org

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A Pan-Genome Approach to Enhance Understanding of the Potato Genome

Maria Kyriakidou[1], José Héctor Gálvez[1], Chen Yu Tang[1], Helen H. Tai[2], Noelle L. Anglin[3*], David Ellis3 and Martina V. Strömvik[1]

1 Department of Plant Science, McGill University, Montreal, Canada; 2 Fredericton Research and Development Centre, Agriculture and Agri-Food Canada, Fredericton, Canada; 3 International Potato Center, Lima, Peru. * E-mail: n.anglin@cgiar.org

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Diversity, taxonomy, distribution, conservation and uses of the wild potato species in Southern South America

Iris Peralta[1*], Andrea Clausen[2], Natalia Alvarez[3] and David Michael Spooner[4]

1 National University of Cuyo; 2 Agronomy Faculty, National University of Mar del Plata and INTA Balcarce; 3 Agronomy Faculty, National University of Cuyo; 4 Vegetable Crops Research Unit, USDA, Agricultural Research Service and Department of Horticulture University of Wisconsin. * E-mail: ieperalta60@hotmail.com

Selected Posters

Technical Session G and H: Potato Biodiversity and its use in Breeding, Nutrition and Health

Improvement and Participatory Selection of Biofortified Clones in the High Andes of Huancavelica, Peru

Maria Scurrah[1], Raul Ccanto[1], Walter Amoros[2], Elisa Salas[2] and Merideth Bonierbale[2*]

1 GRUPO YANAPAI (NGO); 2 International Potato Center (CIP), Lima. * E-mail: mwbonierbale@gmail.com

Collection of Polish potato varieties in the in vitro Genebank

Agnieszka Przewodowska[1*], Dorota Michałowska[1] and Joanna Piskorz[1]

1 Plant Breeding and Acclimatization Institute - National Research Institute, Bonin Research Center, Poland. * E-mail: a.przewodowska@ihar.edu.pl

Effect of fertilization with zinc in an agronomic fortification strategy in two potato varieties (*Solanum tuberosum*) in soils from the coast and highlands

Luciana Delgado[1*]

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Principal Components Analysis of Six Tuber Quality Traits of 72 Potato (*Solanum tuberosum* L.) Clones

Jun Hu[1], Jian-Fei Xu[1], Shao-Guang Duan[1], Guang-Cun Li[1], Chun-Song Bian[1], Wan-Fu Pang[1], Li-Ping Jin[1*]

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Quantifying diversity of potato crop (Solanum spp.) in an Agrobiodiversity Zone in the Peruvian Andes

Sphyros Lastra[1*], Fabiola Parra[1], Juan Torres[1] and Alejandro Casas[2]

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Genetic diversity and origin of cultivated potatoes based on plastid microsatellite polymorphism study of herbarium specimens from WIR and LE herbaria

Tatjana Gavrilenko[1*], Irena Chukhina[1], Olga Antonova[1], Lilia Shipilina[1] and Lubov Novikova[1]

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Potato cryocollection at VIR

Tatjana Gavrilenko[1*], Yulia Ukhatova[1], Natalia Shvachko[1], Olga Antonova[1], Natalia Volkova[1] and Natalia Klimenko[1]

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Use of cryopreservation method for long-term storage of potato germplasm in the Czech Republic

Miloš Faltus[1*], Jaroslava Domkářová[2], Vendulka Horáčková[2], Alois Bilavčík1, Jiří Zámečník[1]

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Phytochemical screening, content of total phenols and antioxidant activity of five peruvian varieties of *Solanum tuberosum* in the process of liofilization and pre cooking

Jorge Chavez[1*], Lillyan Loayza[1], Ángel Rodriguez[1], Eder Apumayta[1], Alondra Badillo[1], Joyce Mamani[1], Sandra Casimiro[1], Juana Zavaleta[2], Alan Portugal[2], José Gomez[2], Ana Muñoz[2], Miriam Perez[2], Grimaldo Febres[2] and Luis Aguilar[2]

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Dry matter and specific gravity content evaluation in the Central Colombian Potato Collection *Solanum tuberosum* group Andigena

Zahara Lasso Paredes[1*], Baltazar Coronel Ortiz[1], Olga Yanet Pérez[1] and Raúl Iván Valbuena Benavides[1]

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Estimation of Seed Stored Longevity of Potato Using Accelerated Aging

Nataly Franco[1*], Magaly Flores[1], Violeta Quispe[1], Oswaldo Chavez[1], Hugo Soplin[2], David Ellis[1] and Noelle Anglin[1]

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Effect on iron levels, by the inclusion of native potatoes in the diet of children aged 2 to 5 years, in six rural municipalities of a medium income country. Cluser Randomized Trial

Gloria Johanna Bustos Leiton[1*], Sara Del Castillo[1], Javier Eslava[1] and Teresa Mosquera-Vásquez[1]

1 Universidad Nacional de Colombia. * E-mail: gjbustosl@unal.edu.co

Phenotypic variability in the germoplasm of native potatoes from the Pasco region

Edith Luz Zevallos Arias[1*], Fernando James Alvarez Rodriguez[1], Gina Esli Asunción Castro Bermudez[1] and Rocio Karim Paitan Gilian[1]

1 Universidad Nacional Daniel Alcides Carrion, Pasco, Peru. * E-mail: elzevallosa@gmail.com

Variation of asparagine and reducing sugars in potato tubers and acrylamide in potato chips or French fries

John Lu[1*], Albert Zhang[1] and Benoit Bizimungu[2]

1 Lethbridge Research and Development Centre, Agriculture and Agri-Food Canada, Lethbridge, Alberta, Canada; 2 Fredericton Research and Development Centre, Agriculture and Agri-Food Canada, Fredericton, New Brunswick, Canada. * E-mail: zhen-xiang.lu@agr.gc.ca

Kinship analysis and tuber coloration relationship between reddish potatoes belonging the *Solanum tuberosum* subsp tuberosum, Chilotanum Group

Anita Behn[1*], Álvaro Gonzalez[2], Jose Luis Solís[1], Felipe Zapata[2], Carolina Lizana[1] and Derie Fuentes[2]

1 Universidad Austral de Chile; 2 Center for Systems Biotechnology, Fraunhofer Chile Research. * E-mail: anita.behn@uach.cl

Dry matter distribution during tuber development and carbohydrate metabolic gene expression between tuber ends at harvest and sprouting

Bailin Liu[1,2], Guodong Zhang[1,3], Xiubao Li[4], Suyan Niu[2], Benoit Bizimungu[2], Huaijun Si[3], Qin Chen[1], Xiu-Qing Li[2*]

1 State Key Laboratory of Crop Stress Biology for Arid Areas and College of Agronomy, Northwest A&F University, Yangling, Shaanxi, China, 712100; 2 Fredericton Research and Development Centre, Agriculture and Agri-Food Canada, 850 Lincoln Road, P.O. Box 20280, Fredericton, New Brunswick, Canada E3B 4Z7; 3 Gansu Provincial Key Laboratory of Arid land Crop Science, Gansu Agricultural University, Lanzhou, Gansu, China, 730070; 4 Rizhao Academy of Agricultural Sciences, Rizhao, Shandong, China 276500. * E-mail: Xiu-Qing.Li@agr.gc.ca

Ensuring the long-term conservation of wild relatives of potato in Peru

Cinthya Zorrilla[1*], Diego Sotomayor[1], Alberto Salas[2], René Gómez[2], Pedro Vergara[1], David Ellis[2]

1 National Institute for Agricultural Innovation; 2 International Potato Center (CIP), Lima.* E-mail: czorrilla@inia.gob.pe

Workshops Sessions

Workshop Session I: Late Blight Global Challenge
Wednesday 30 May – 08:20 – 11:10 hrs


1


2

1. Chair: Ivette Acuña
National Institute of Agricultural Research (INIA Chile)
Researcher, Plant pathologist

2. Co-chair: Jorge Andrade-Piedra
International Potato Center
Epidemiologist of biotic constraints

Late blight is the main biological constraint for potato production worldwide, especially in developing countries. In this workshop, we will present the latest findings in pathogen population and disease management. Experiences on regional late blight networks (such as EuroBlight and LatinBlight) will be presented and links among them will be discussed to identify key challenges on research and development to fight this disease. In addition, considering that *Phytophthora infestans* was originated in America and co-evolved with potato and other Solanaceae, this workshop will be an opportunity to present and discuss the current situation of the pathogen and disease management in Latin-American.

Workshop Session J: In-situ Conservation Challenges
Wednesday 30 May – 08:20 – 11:10 hrs


1


2

1. Chair: Severin Polreich
International Potato Center
Associate Scientist, in situ conservation and monitoring of potato diversity

2. Co-chair: Stef De Haan
International Center for Tropical Agriculture
Agrobiodiversity & Food System's Reseacher

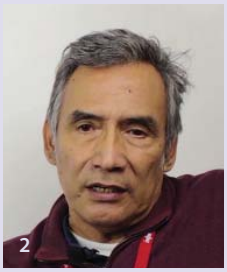
Sub-Session 1: On-farn Conservation of Cultivated Potato Diversity
Potato landraces remain an essential component of Andean production and food systems. Ecological and social change abounds; yet Andean farming systems have remained surprisingly resilient and smallholder producers continue to manage high levels of diversity as part of their livelihood strategies, thereby providing important ecosystem services to humanity. On the other hand, highland communities are increasingly risk prone as they have to struggle with climate change, land fragmentation and increased pest pressure. The aim of this sub-session is to highlight the importance and threats of contemporary family farming in the high Andes and its contribution

to landrace conservation in light of global change. Different dimensions will be discussed, including spatial, genetic, social and benefit sharing components.

Sub-Session 2: In-situ Conservation of Cultivated Potato Diversity
The in-situ conservation of potato crop wild relatives remains an underattended component of regional conservation strategies. The conservation of the potato's wild relatives is passive and little is known about the influence of land use and climate change on divergent evolution and population ecology. Active management in terms of monitoring, management and gap filling is still in its infancy. However, there is increased recognition of the need to establish observatories for active management. The aim of this sub-session is therefore to explore and elucidate options for research on and management off in-situ populations.

Workshop Session K: Value Chain for Small Farmers and Culinary Innovations
Wednesday 30 May – 08:20 – 11:10 hrs


1


2

1. Chair: Andre Devaux
International Potato Center
Latin American and the Caribbean (LAC)
Regional Director

2. Co-chair: Andrés Casas
Universidad Nacional Agraria La Molina
Professor

Ensuring food security in Peru, and more globally, requires actions to improve the productivity and to upgrade the food value chains. This workshop will inform and discuss the implications of rapidly evolving markets and evolving demand from consumers for agricultural products, the consequences for smallholders and the actions required from decision makers to support value chain development.
The first part will be dedicated to the potential of the gastronomic culture as an engine for national socio-economic progress by highlighting the value and special characteristics of native products to promote them through programs of a social nature. Chefs from the recognized restaurants, Central in Peru and Gustu in Bolivia, will share their experiences of culinary innovation and the social collaboration with rural families.
The second part of the workshop will be dedicated to small-scale farmers access to market, first considering high-value market niches linked to organic certification and the promotion of short staple food value chains. The second presentation will explore the limitations and opportunities of different value chain interventions, including native potatoes, that aim to address poverty through improved linkages between businesses and rural smallholders in Peru.
Through comments from specialists and a final discussion, a reflection on the value chain approach to family farming in Peru and its relevance in other contexts will provide some lessons learned and

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Inti is the Sun´s name in Quechua (one of the languages indigenous to the Andean region including the city of Cuzco), considered the most significant deity in the Inca mythology.

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Pacha refers to Pachamama, a goddess revered by the indigenous people of the Andes, goddess of fertility, mother of the earth.

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Potatoes are something you eat, but they also have a spiritual meaning.
There is a poem that says: "In hunger, it feeds; in earth, it fertilizes; potato, papamama of the Andes, HEARTH of the earth"

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Since its inception in 1993, World Potato Congress Inc. has provided nine excellent international congresses. During the 10th Congress here in Cusco, Peru, we are celebrating 25 years of service to the global potato industry.
The World Potato Congress Inc. Sustaining Partner Initiative supports the development and promotion of potatoes both locally and globally. As well, we have expanded our international mandate with emphasis on the promotion of the potato value chain in emerging economies. The positive benefits that accrue the potato industry, from the efforts of the World Potato Congress Inc., are immeasurable and have an impact on the individuals who farm the potato, the processors and those who develop and market the product.
We invite you to consider becoming a World Potato Congress Inc. Sustaining Partner. We would be pleased to provide you with our Sustaining Partners Initiative package and you may also wish to visit our website at www.potatocongress.org. for additional information about the World Potato Congress and the Sustaining Partners Initiative benefits.

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Precision. Quality. Trust.
For over 20 years Ag World Support Systems has been dedicated to providing accurate and reliable potato and vegetable inspection services to growers and processors worldwide - with current operations in the United States, Canada, and China. The inspection information Ag World generates provides the basis for grower payment and delivers accurate, on-time, and unbiased verification of product quality and condition, which growers and processors utilize to optimize their operations.
Our commitment to quality, precision, and innovation has made Ag World the trusted global leader in agricultural inspection services. Superior customer service, continual training and quality people make Ag World a company committed to better serving the independent third-party inspection needs of agriculture.

Say potato, say

AGRICO

Agrico

Gold Partner

Agrico: your powerful partner from seedling to the supermarket shelf

A powerful, cooperative organisation that sells potatoes all over the world, breeds new varieties and develops innovative solutions. That sums up Agrico. From seedling to the supermarket shelf.

Seed potatoes

Each country and each population has its own preferences regarding shape taste and cooking quality. On top of that, each country or region has its own, unique cultivation conditions. Type of soil, climate, fertilisation and storage conditions are all key factors determining the end result.

We export seed potatoes to buyers all over the world. They can chose from a range comprising more than 80 varieties. At Agrico you will always find a potato that meets your specific requirements.

Table potatoes

Agrico produces quality table potatoes for the traditional market, as well as supermarket programs. For supermarkets Agrico organize year round programs with several varieties from soils in Holland, Cyprus, Malta, Israel, Egypt, Spain and Portugal, to guarantee customers excellent quality throughout the year.

Organic potatoes

Organic potato varieties are grown under the brand name Bioselect. Furthermore, Agrico supplies various specially selected potato varieties for the production of potato products such as crisps and French fries.

Packing and breeding/research company

Agrico has also a packing company for table potatoes in Purmerend, Leo de Kock BV, and a breeding/research company, Agrico Research in Bant. Agrico also operates through subsidiaries and participations in France, Italia, Great-Britain, Poland, Slovenia, Scotland, Romania, Finland, Sweden and Canada as well as agencies in practically all seed importing countries.

McCain

McCain Foods Limited

Platinum Partner

McCain Foods Limited is an international leader in the frozen food industry, employing over 20,000 people and operating over 60 production facilities on six continents.

A privately-owned company headquartered in Canada, McCain has annual sales of more than C$6 billion and is the world's largest producer of French fries and potato specialties. The company's products can be found in thousands of restaurants and supermarket freezers in more than 130 countries around the world.

AVR

Silver Partner

About AVR bvba

AVR manufactures a full range of machinery for the cultivation of potatoes as well as other bulbous and tuberous plants. From seed bed preparation, planting and ridging to haulm topping, harvesting and storing. AVR bvba is a Belgian company with its head office in Roeselare. The in-store equipment is manufactured in Veendam in the Netherlands.

AVR's mission is to help its customers store a higher percentage of sellable crops with less input. Reliability, steadfastness and commitment are key values in achieving that goal.

On the one hand, the 'Keen & Green' label stands for market oriented and clever solutions (Keen) that boost efficiency; on the other hand, the label is synonymous with sustainability, both in use and consumption. A large service department is just one of the ways in which AVR strives to provide customers and dealers with maximum support.

AVR has some 130 employees internationally. Its worldwide dealer network consists of 105 dealers. In 2016, AVR realised a turnover of € 52 million, thanks to its customers in over 50 countries.

AVR bvba

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Cavendish Farms

Silver Partner

Cavendish Farms is a quality producer of frozen potato products for retail, restaurant and quick service markets throughout Canada, USA, the Caribbean, Europe and Asia.

We have production facilities in Canada, at New Annan, P.E.I., Lethbridge, AB, and in the U.S., at Jamestown, North Dakota. Being placed near North America's prime potato growing regions allows Cavendish Farms to use only the best varieties of potatoes for frozen French fry processing. Our climate-controlled storage facilities ensure a year-round quality supply of potatoes, and allow us to handle them in a safe and healthy manner.

We have been providing value-added products and services to our customers since 1980. By focusing on providing only superior potato products, we have grown to become the 4th largest frozen potato processor in North America, and are looking forward to continuing to grow and provide new and innovative customer solutions.

Cygnet PEP Ltd.

Silver Partner

Cygnet PEP Ltd is a privately owned company specialising in exporting Scottish seed potatoes to customers worldwide.
With exclusive rights to all Cygnet PB Ltd bred varieties, as well as a broad portfolio of internationally accepted free varieties, Cygnet PEP Ltd can offer customers a variety mix suitable for table, French fry and chipping/crisping production.
Cygnet PEP's development program tests new varieties in wide ranging conditions from the desert heat of north Africa and the middle east, to the warm humid conditions of south east Asia and the relatively varied conditions across Europe.
Cygnet PEP's seed producers and facilities are based within the Safe Haven of Scotland from where high grade seed is grown, graded, quality controlled and exported.

DEWULF

Silver Partner

Since 1946, Dewulf represents top of the range harvesting technology, specialized in the field of potatoes and carrots. Dewulf rightfully calls itself the harvester specialist, because worldwide, more and more farmers and contractors are choosing Dewulf technology for their harvesting needs. Thanks to the acquisition of Miedema, technology for storage, sorting, transport and planning of potatoes, the group became one of the global leaders in this segment of agricultural machinery manufacturing market.

Master of the field, anytime, anywhere
Dewulf succeeded in building exactly those machines that are required by its customers: productive and easy to maintain machinery, that is able to go where no other machine can go. Dewulf harvesters need very little routine maintenance and are sure to deliver quality end products, thanks to specialized and balanced systems for intake, cleaning and transport.
Miedema, the one to go to for development and production of modern technology for storage, sorting, transport and planting of potatoes. The company markets strong brands, like Miedema, Structural and Smart Solutions. Miedema achieves extremely lean production of over 1500 different machines, a path it started down in 1940.

World player
Over the past decades, the Dewulf family business has evolved into an international player which exports to more than 37 countries. Dewulf ~ Miedema now employs over 274 employees including 20% in R&D.

EUROPLANT

Gold Partner

EUROPLANT is one of the leading companies in potato breeding. Based in Europe, we provide the global market with high quality seed potatoes. Our sister companies BNA and BIOPLANT are focused on the research and development of our new potato varieties.

Our range consists of more than 80 registered potato varieties for all marketing purposes and of all maturity groups.

In cooperation with BNA and BIOPLANT, we propagate our prebasic seed potatoes exclusively on our own farms. Highly specialized farmers multiply the next generations in the best potato growing areas of Schleswig-Holstein, Lower Saxony and Mecklenburg-Western Pomerania. Through our European subsidiaries we also produce seed potatoes in favoured regions of the neighbouring European countries. Thereby we are represented in the most important potato cultivating countries. Our customers can always rely on our worldwide network of partners and representations.

On account of market requirements and ultimate consumer needs, our different potato varieties are under permanent control and consideration. All efforts in research and development are continuously aimed at finding optimal potato varieties on offer. Our market-oriented research, which seeks close co-operations with our costumers, is further anxious to develop innovative potato varieties for new areas of applications.

Healthy and efficient seed potatoes are the basis of quality potato production. For years EUROPLANT therefore has used in-vitro-plants of meristem cultures of highly controlled laboratories as basis of our seed potato production.

Our team at EUROPLANT is always available to help our customers with advice to guarantee successful potato production and marketing. EUROPLANT's objective is to be the competent and reliable partner in all matters concerning the potato – at all times. With more than one hundred years of experience our group is continuously and extensively investing in modern research and product development to meet the needs of our customers. Through close collaborations with numerous universities and research institutes we can guarantee that the latest results of basic research and scientific knowledge are immediately applied in the practical breeding process. Our activities result in successful potato breeding that meets the needs and wishes of our customers.

EUROPLANT your competent and innovative partner today and tomorrow.

United Potato Growers

Silver Partner

United Potato Growers of America is a federated farmers cooperative that focuses on managing its members' potato supply so as to positively affect their economic success. It is through United membership that potato growers are empowered to better understand and act upon demand for their product.

W.P. Griffin Inc.

Silver Partner

W.P. Griffin Inc. is a family owned and operated business that has a proud heritage of over 60 years in the Prince Edward Island, Canada, potato industry.
The Farming Division showcases new table varieties, sustainable farming practices, food safety & quality. We annually produce 1100 acres of potatoes, 950 acres of grain, and 650 acres of hay. Cultivating many different potato varieties some of our favourites include Russets, Reds, White and Yellow Fleshed potatoes.
The Packaging & Wash Plant division has the ability to produce a wide variety of traditional potato products as well as a line of value-added specialty products. This division has undergone a complete makeover over the past 5 years, integrating state-of-the-art technology allowing for growing demands of traditional and specialty products.
W.P. Griffin Inc. is committed to producing high quality and safe products for our customers. An internal Quality Assurance Program has been implemented in addition to conducting annual audits, ensuring that our food safety is of the highest calibre. It is a federally registered facility and is C-TPAT certified. We are also the first potato packer on Prince Edward Island to implement a full forward and backward lot-traceability system that enables us to track all products from the field to your plate.

GRIMME

Silver Partner

The Grimme Company started off in a small way about 150 years ago in Lower Saxony, Germany. Over several decades the company established itself as a specialist in potato technology for field and storage. From bed cultivation and planting technology to harvest and storage technology, Grimme offers effective and complete solutions. In the meantime the company has also developed into a specialist for sugar beet harvest technology.
In 120 countries customers can rely on the well-known red machines. No matter whether far away in Argentina or Australia or in our domestic market in Germany: all around world users can appreciate Grimme technology. Grimme works close together with their independent sales and service partners as well as Grimme owned service and sales subsidiaries.
More than 2,000 qualified and highly motivated staff, in the Grimme group, live by the common slogan "Innovation for Tradition". Around Damme, Germany, Grimme is one of the largest employers with over 1,300 permanent full-time staff. Also over 120 young people are trained in different technical and commercial professions. Furthermore, several students complete their skills every year by gaining practical experience in various technical and business fields away from Grimme.

HZPC Holland B.V.

Silver Partner

More than a century of experience in seed potatoes
HZPC's core business is breeding, growing and marketing of seed potatoes. HZPC has business locations in Holland, France, UK, Spain, Portugal, Italy, Germany, Poland, Russia, Sweden, Finland, Canada and Argentina. HZPC is one of the largest private seed potato companies in the world.

Research and Development
To meet the customer needs in the different market sectors, HZPC operates a modern breeding station. In co-operation with 55 professional breeders, suitable varieties are developed for the specific market segments Traditional, Retail Fresh, French Fries, Crisps and Peeled.

Marketing
80% of HZPC's seed production in Holland is exported to over 70 countries. The seed production in other countries are mainly allocated for the local market. Together with their representing agents, importers and distributors, the HZPC companies form a strong worldwide network in the seed potato industry.

Varieties
HZPC offers a wide range of varieties for every market segment, soil type and climate. With the more than 70 specific varieties, HZPC can meet the demands of both the fresh markets as well as the processing industry. Various varieties are multifunctional and can be used for different purposes, depending on the growing conditions.

www.hzpc.com

EarthFresh

Platinum Partner

Conducting business since 1963, EarthFresh is a Canadian produce company specializing in supplying the Food Service and Retail industries with fresh potatoes, carrots and onions and Organic produce. EarthFresh has complete involvement in all aspects of the potato industry – from seed breeding, seed production, tablestock production, packing and distribution.

EarthFresh Farms Inc.
Email: info@earthfreshfoods.com
Telephone: 416.251.2271
TF phone: 1.800.565.4915
Fax: 416.251.2497
Address: 1095 Clay Avenue, Burlington, Ontario L7L 0A1
Website: www.earthfreshfoods.com

Irish Potato Marketing Limited (IPM)

Platinum Partner

Headquartered in Ireland, IPM is an international leader in seed potato variety
innovation, production and marketing. Boasting one of the largest and most advanced potato breeding programmes in Europe, IPM proudly presents 27 commercial proprietary varieties in its portfolio which are exported to over 40 countries worldwide. IPM is committed to delivering the best varieties for all potato customers: growers, processors, packers, retailers and consumers, through the supply of high quality seed at the start of the production chain. Customers are catered for from production bases in Ireland, Scotland, Holland, Denmark, France and South America and through licensing agreements in North America, Australia and New Zealand. IPM is the leading seed potato company in Ireland and the largest exporter of protected varieties from the UK. To learn more about IPM and their varieties please visit www.ipm.ie.

Badger Commom'Tater

Platinum Partner

As the official voice of the Wisconsin Potato & Vegetable Growers Association, The Badger Common'Tater is widely recognized as one of the best potato-vegetable publications available. Potato growers, distributors and industry partners across the globe subscribe to this excellent monthly publication.

Why? Because you get:

- In-depth interviews with growers and industry leaders
- Articles by top university research scientists
- Information on recent trends in planting, harvesting, storage, packaging, and more
- Details on state and national potato promotional and marketing efforts
- The latest news on innovative products and new technologies
- People in the news
- Seasonal statistical reports and crop updates
- Fresh and delicious potato recipes
- Up-to-date calendar of events

The Wisconsin Potato & Vegetable Growers Association is a non-profit trade association of growers. Thus, the revenue from advertising dollars spent in The Badger Common'Tater is put back into programs (research, education, marketing and governmental relations) for potato and vegetable producers. So when you advertise your products and services in the Common'Tater, not only do you reach a targeted audience of growers, you are investing in the success of your customers!

Interpom Primeurs

Silver Partner

Interpom Primeurs
The biggest indoor potato event in the world!
Interpom Primeurs is the most specialised indoor trade fair for the potato and vegetable sector in Europe where the whole chain is represented: from growing, to processing and marketing. The next edition will be held in Kortrijk Xpo (Belgium) on Sunday 25 through to Tuesday 27 November 2018.
Interpom Primeurs offers a complete and above all sharply focused range of products and services for all professionals in the potato and vegetable sector: growers, contractors, processors, packers, buyers and traders of fresh and processed potatoes and vegetables from all corners of Europe – and increasingly, from other continents as well. **Interpom Primeurs** continues to grow and become more international each time round with 310 exhibitors from 15 countries and 20,000 visitors from 49 countries at the past edition.
Interpom Primeurs is an initiative of Belgapom, the official trade association of the Belgian potato sector (trade and processing). The practical organization is in the capable hands of Kortrijk Xpo.

Interpom Primeurs
Kortrijk Xpo
Doorniksesteenweg 216
8500 Kortrijk
Belgium
Tel. +32 56 24 11 11
Email: interpom-primeurs@kortrijkxpo.com
Web: www.interpom-primeurs.be

Belgapom
Interpom Primeurs
is an initiative of www.belgapom.be

PEI Potato Board

Platinum Partner

The Prince Edward Island Potato Board represents the more than 200 potato growers in the province, working together to ensure long term profitability and sustainability through marketing, advocacy, negotiations and activities to support quality seed, tablestock and processing potato production. We are Canada's largest potato producing province, with approximately 25 percent of total Canadian production and approximately 30 percent of total seed potato production. About one half of all seed potato growers in Canada farm in PEI. Our seed and tablestock potatoes are sold in more than 30 countries around the world. Close to sixty percent of our crop is now produced specifically for processing into french fries, potato chips, dehydrated potato granules and other value-added products. The potato industry is worth more than one billion dollars to the Prince Edward Island economy in direct and indirect value.

Prince Edward Island, Department of Agriculture and Forestry

Silver Partner

The agriculture industry is the single largest contributor to the economy of Prince Edward Island. The mandate of the Department of Agriculture is to promote the growth of sustainable and prosperous farming enterprise, and thereby increase the economic impact of the industry. The department provides a range of programs and services to broader and diversify the industry, support innovation and encourage value-added opportunities. Providing quality advice and assistance to producers is a top priority for the department.

The major goals of the department include the provision of effective risk management for producers; promoting environment stewardship practices; supporting food safety and quality; and carrying out measures to encourage industry self-reliance. It also offers laboratory and diagnostic services.

The department works closely with agricultural and commodity groups and seeks their input on agricultural policies and programs. It is also exploring new opportunities for areas of cooperation with other provinces in the region. The department also partners with Agriculture and Agri-Food Canada to deliver joint programs in the province.

New strategies are being developed to support and encourage the production and marketing of high quality products from sustainable production systems that will be increasingly recognized and rewarded in the marketplace.

Potato Growers of Alberta

Gold Partner

The Potato Growers of Alberta (PGA) is the member driven organization of the Potato Industry in Alberta. Founded on April 16th, 1966, today's organization is home to 140 licensed producers, 52 packer dealers, 12 licensed greenhouse operators and 7 licensed processors.

The province grows about 53,000 acres of potatoes annually with about 75% of that production in French fries and chips, 19% is seed acres and the remaining 6 % is fresh. Over 50% of our seed is exported annually to the US and other Canadian provinces. All of the processing production is in Southern Alberta under irrigation. The seed production spreads across the central (Red Deer) and northern AB (Edmonton) area with half of the production under irrigation as well.

The processing industry in Alberta is home to Lamb Weston, McCain's, Cavendish Farms, PepsiCo-Frito Lay and Old Dutch. All five of the plants are in Southern Alberta.

The PGA operates its head office out of Taber, Alberta with a satellite office for our seed division out of Edmonton Alberta.

Potato Growers of Alberta
6008 46th avenue
taber, alberta
t1g-2b1
403-223-2262
pga@albertapotatoes.ca
www.albertapotatoes.ca

Potato World Magazine

Platinum Partner

Potato World magazine is the number one source of potato information for industry professionals worldwide. All our specialized journalists are proud to report about the latest international developments of this main food crop from the potato heart of Western Europe. We focus on important subjects such as breeding, seed production, varieties, inspection, fertilisers, crop diseases, crop protection, quality issues, high-tech machinery and storage, marketing, market analyses, statistics, science and research, education, and much more potato news. Of course we portray lots of innovative passionate growers on their own modern farms.

Active in whole potato chain

Founded in 1947, Potato World has served the whole potato industry for many decades. We publish a printed magazine four times a year and a digital monthly newsletter. Both are also available on our modern website. We analyse news behind the news in the whole potato chain, so potato specialists can feed their own opinion.

The combination of print and internet makes it possible for a big group of potato related companies to communicate with potato professionals. We offer a range of opportunities for advertisements.

Wada Farms

Silver Partner

Wada Farms has been cultivating excellence for over 65 years as a leading grower and packer in the potato industry. Based in Idaho, this family-owned and operated business is dedicated toward the delivery of fresh and innovative products sustainably.

Established in 1943, Wada Farms operates in 6 diversified farming locations across three counties, totaling around 30,000 irrigated acres. The original farming operation has expanded to include a fresh potato, onion, and sweet potato marketing group, 140,000 sq. ft. fresh potato packing warehouse, and trucking company. Growing over a billion potatoes annually, Wada Farms is among the largest growers and packers in the industry.

Wada Farms Marketing Group is the exclusive marketer of Dole fresh potatoes, onions and sweet potatoes in North America. Wada packs a variety of labels in addition to Dole with the ability to supply fresh product from every major growing area in the country. Wada Farms also offers industry leading category management analysis and support through Category Partners.

Spud Smart

Platinum Partner

Spud Smart is the primary publication of the Canadian potato industry. Designed to be the voice of potato growers, processors and industry suppliers, Spud Smart focuses on the issues that matter to the industry. With regular contributions from provincial and national industry associations and timely editorial content, Spud Smart is a forum for the Canadian potato industry to communicate and explore new opportunities. Published quarterly, Spud Smart has a growing circulation of over 3,000 industry stakeholders. Spud Smart is published by Issues Ink. Our goal is to facilitate changes that create more options for farmers. To learn more about Spud Smart, visit us online at www.spudsmart.com.

Volm Companies Inc.

Silver Partner

Volm Companies Inc. has been providing the potato industry with the latest generation packaging equipment, materials and supplies for over 60 years.

We are a major national and international manufacturer and supplier of potato packaging. Multiple manufacturing and distribution facilities, along with our large trucking fleet, ensure you have the packaging you need when you're ready to use it.

We are committed to manufacturing at the highest level of quality to ensure top production speeds on automated equipment and package integrity at the point of purchase.

Volm also provides a program called Volm Inventory Management Solutions (VIMS). The program is designed to improve the flow of finished goods and, ultimately, to ensure a reliable source of materials.

We manufacture a complete portfolio of industry leading automated potato packaging equipment under the Volmpack brand name. Volmpack equipment is the market share leader across North America due to its quality, dependability and accuracy in weighing and bagging.

We partner with world-class equipment suppliers to offer full-line equipment solutions for potato packers - from receiving wash lines to palletizing systems.

Our Volm Engineered Solutions Team (VEST) consists of expert designers and engineers who will customize the equipment solutions for new or existing facilities.

Practical Information

About Cusco and Tips for your stay in Peru

Birthplace of the world

Known as a seductive, striking and natural city, the history of Cusco lives in every street, corner, valley and town. Stunning destinations and examples of fine engineering built by Inca stonemasons can be seen in Choquequirao, Saysayhuaman, Kenko, Tambomachay, Ollantaytambo and Machu Picchu, the Inca`s treasure construction which was built with the wisdom of the ancient Peruvians in an ecological environment. Captivating landscapes such as the Sacred Valley where the mountains are clothed by terraces. Picturesque villages can also be appreciated, where the past becomes the present. Cusco is certainly the birthplace of the world.

Location: The Andes mountain range in the south of Peru.

Extension: 72,104 km^2

Weather: Cusco City has a semi-dry and cold climate.

Maximum temperature: 21°C70°F

Altitude: The altitude in the city of Cusco is 3 399 meters or 11 152 feet.

Machupicchu

- The altitude in Machupicchu is lower than Cusco. If you are visiting Machupicchu during your stay in Peru, please be aware of the site`s weather because there is often fog and rain showers. Keep this in mind as you select your clothing for any tour.
- Machupicchu has three climbing levels, therefore, a good footwear such as sneakers or hiking boots is recommended.
- Remember to bring a cap, sunglasses, sunblock and in particular, your camera. It's a wonderful experience!

  Source: https://www.peru.travel/where-to-go/cusco.aspx (PromPerú)

Where to eat in Cusco?

Inka Krill
Portal de Panes 115, Plaza de Armas, Cusco, Perú
Monday to Sunday: 11:30 hrs. - 23:00 hrs.
inkagrill@cuscorestaurants.com
+51 84 262992

Calle del Medio
Calle del Medio 113, 2nd floor, Plaza de Armas, Cusco, Perú.
Monday to Sunday: 11:30 hrs.
calledelmedio@cuscorestaurants.com
+51 84 237946- 23:00 hrs.

KION peruvian chinese
Calle Triunfo 370, 2nd floor, Cusco, Perú
Monday to Sunday: 11:30 hrs. - 23:00 hrs.
kion@cuscorestaurants.com
+51 84 431862

LIMO cocina nikkei
Portal de Carnes 236, 2nd floor, Plaza de Armas, Cusco, Perú
Monday to Sunday: 11:30 hrs. - 23:00 hrs.
limo@cuscorestaurants.com
+51 84 240668

Greens Organic
Santa Catalina Angosta 135, 2nd floor, Cusco, Perú
Monday to Sunday: 11:30 hrs. - 23:00 hrs.
greens@cuscorestaurants.com
+51 84 243379

Incanto
Santa Catalina Angosta 135, Cusco, Perú
Monday to Sunday: 11:30 hrs. - 23:00 hrs.
incanto@cuscorestaurants.com
+51 84 254753

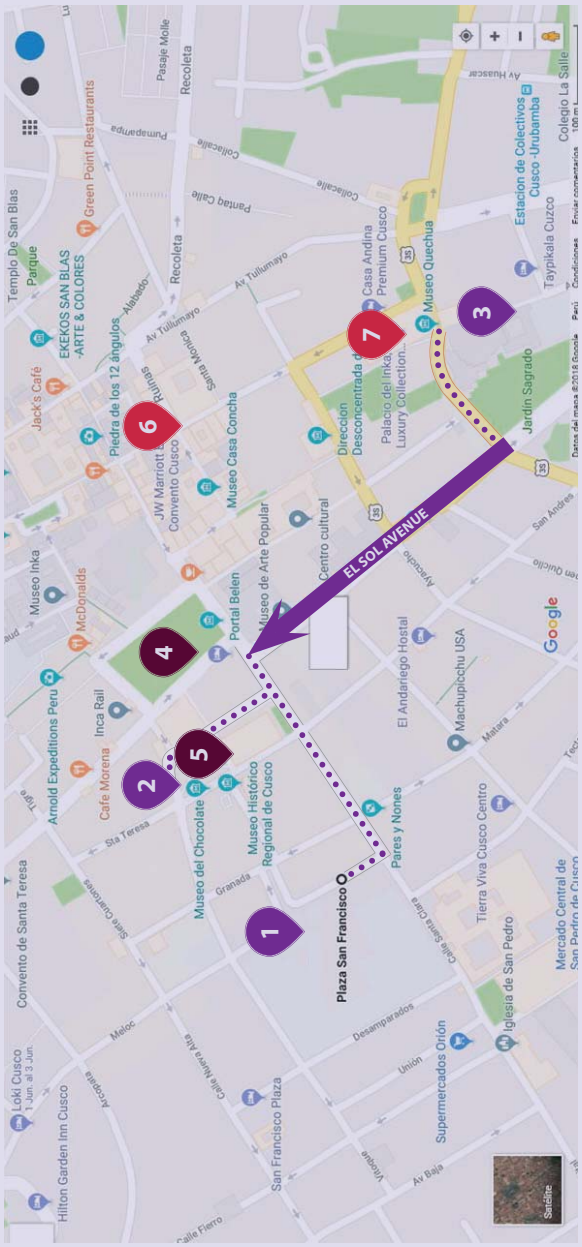
PACHAPAPA
Plazoleta San Blas 120, Cusco, Perú
Monday to Sunday: 11:30 hrs. - 23:00 hrs.
pachapapa@cuscorestaurants.com
+51 84 241318

MAP Café
Plazoleta Nazarenas 231, Museo de Arte Precolombino
Monday to Sunday: 11:30 hrs. - 15:00 hrs.
18:00 hrs. - 22:00 hrs.
mapcafe@cuscorestaurants.com
+51 84 242476

If you need a taxi:

Taxi Turismo Cusco: (084) 24 5000
Aló Cusco: (084) 22 2222
Llama taxi: (084) 22 2000

Cusco Map



1 SAN FRANCISCO CONVENT

2 CONVENTION CENTER

3 QORICANCHA TEMPLE

4 PLAZA DE ARMAS CUSCO (DOWNTOWN CUSCO)

5 PLAZA REGOCIJO

6 MARRIOT HOTEL

7 PALACIO DEL INKA HOTEL

WALKING DISTANCE: CONVENTION CENTER TO SAN FRANCISCO CONVENT: 4 MIN. • CONVENTION CENTER TO QORICANCHA TEMPLE: 12 MIN. • SAN FRANCISCO CONVENT TO QORICANCHA TEMPLE: 15 MIN.

ORGANIZING COMMITTEE:

PERÚ Ministerio de Agricultura

inia Instituto Nacional de Innovación Agraria

CIP INTERNATIONAL POTATO CENTER A CGIAR RESEARCH CENTER

UNIVERSIDAD NACIONAL AGRARIA LA MOLINA

prom perú

Organización de las Naciones Unidas para la Alimentación y la Agricultura

INSTITUTIONAL SUPPORT:

Gobierno Regional CUSCO

MUNICIPALIDAD DEL CUSCO

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BASF We create chemistry

YARA Knowledge grows