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# Argentina–China Food Science and Technology Centre Objectives and Actions

María Cristina Añón CIDCA (UNLP  
– CONICET)

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Argentina y Asia en 2030: Estrategias en los Agronegocios para un  
Mundo en Desarrollo

Buenos Aires 7 al 9 de abril de 2014



# Importance of food and beverage industry



2011 data

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Production **\$ 215.620 millions**

% of GDP **4.6 %**

% of manufacturing GDP **25 %**

Jobs **500.000 – 5 %** of  
the total economy

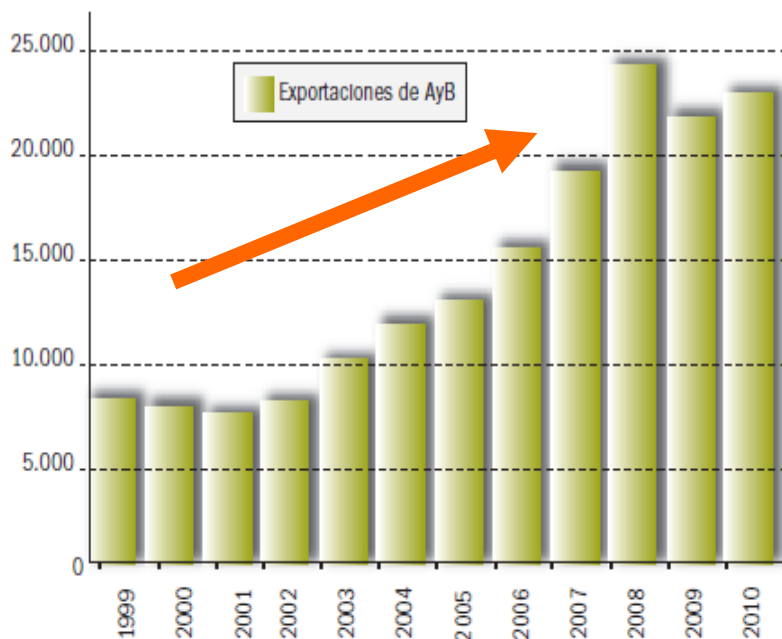
Import/export ratio US\$ FOB **1.5/30**

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# Argentina as a food exporter

Millones de US\$ FOB



MAGyP / INDEC

Exports of FBI accounts for:

**95 %** of exports of MAO

**5.8 %** of GDP

**31 %** of total exports

Total exports in 2011 US\$ FOB  
**29.151 millones**

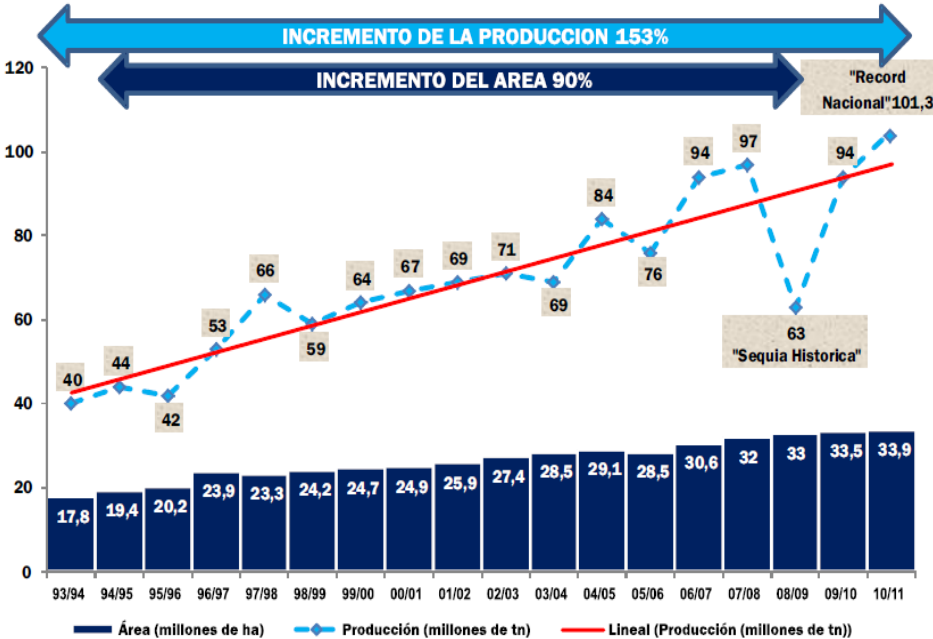
Exportaciones argentinas por CIU  
Divisiones año 2010





# Developments in the last decade

INCREMENTO EN ÁREA SEMBRADA Y PRODUCCIÓN EN ARGENTINA EN LOS ÚLTIMOS 18 AÑOS



## Grow of the FBI



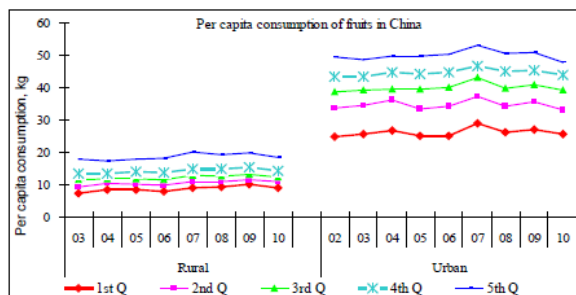
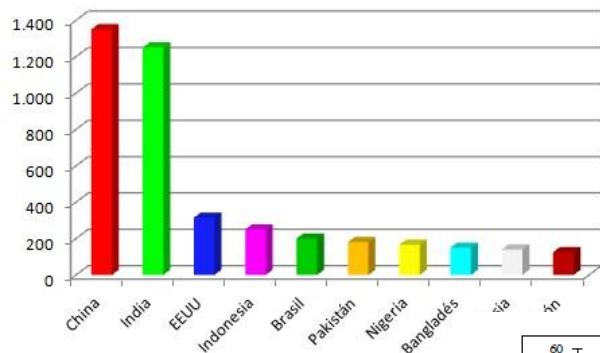
Exports **280 %**

Investments **245 %**

Production **50%**

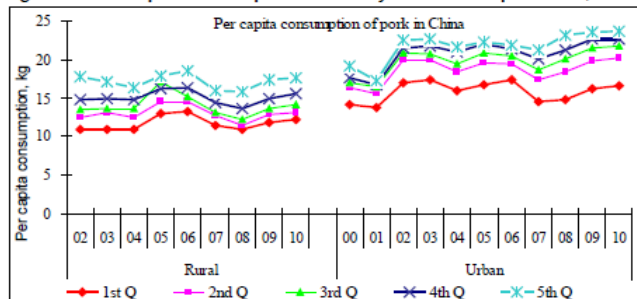


# China



Sources: rural: based on data from SSB, various issues; urban: based on data from SSB.

Figure 2.3 Per Capita Consumption of Pork by Income Group in China, 2000-10



## It produces and exports food



Grains, oils, sugar, tea, fruits, meats, fish and sea foods, manufacture foods and beverages, etc.



# Argentina–China Food Science and Technology Centre

Mission to Beijing's Minister of Science, Technology and Innovation, Dr. Lino Barañao – September 1, 2008

Protocol for the Establishment of a Binational Center Argentine-Chinese in the area of Food Science and Technology

Ministry of Science, Technology and Productive Innovation of Argentina Republic and the Ministry of Science and Technology of the People's Republic of China





# Argentina–China Food Science and Technology Centre

The Center aims to strengthen bilateral cooperation between Argentina and China in the field of food science and technology, with special emphasis on the development of agrifood, biotechnology, nanotechnology, highly educated industry, sustainable production and energy





## Argentine Scientific Committee

Dr. Maria Cristina Añon coordinator. Research and Food Cryotechnology Development (CIC-UNLP-CONICET)

Representatives of the Ministry of Science, Technology and Innovation, CONICET, INTI, INTA



## Chinese Scientific Committee

Dr. DAI Xiaofeng, coordinator. China Academy of Agricultural Sciences (CAAS)

Representatives of the Ministry of Science and Technology of China and the CAAS

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# Strategy followed for defining issues of common interest

Join Committee Meetings

Conferences and Workshops

Beijing 2009, 2011

Bs.As. 2008, 2010, 2014

**Meat Processing**

Processing Plant Proteins

Food Safety

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# What are the goals pursued?

contribution to  
knowledge

technological  
development

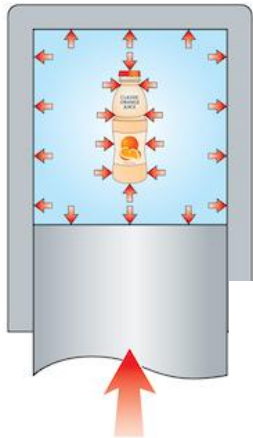
training of human  
resources

transfer of results

participation of different institutions and  
companies



# Safety improvement and shelf life extension of fresh and cooked beef and mutton products applying non-thermal technologies



Coordinators

Dr. Sergio Vaudagna  
Dr. Dequan Zhang



## Argentine participants

Institute of Food Technology (ITA)



INTA

Center of Research and Development in  
Food Cryo-Technology (CIDCA)



CCT La Plata – CONICET, UNLP

Department of Technology

UNLu





## Chinese participants



CAAS.cn

Institute of Agro-food Science and  
Technology

Chinese Academy of Agricultural Sciences  
IFAST-CAAS

College of Food Science and Nutritional  
Engineering CFSNE



## Objectives

To study the effect of technologies of high hydrostatic pressure (HHP) technology and carbon dioxide in dense phase (CDDP) on the physicochemical and sensory properties of meat (beef and lamb) marinated / cured and meat products (burgers, sausages)

To study the effect of HPH and CDDP technologies on the inactivation of pathogenic microorganisms (native strains) and endogenous microflora inoculated meat (beef and lamb) marinated / cured and meat products

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## Exchange of researchers

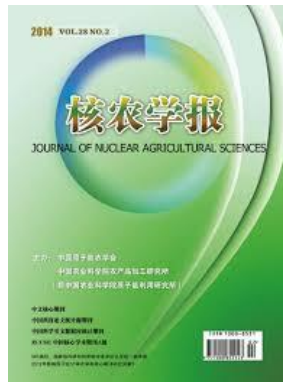


Dr. Natalia Szerman (researcher ITA-INTA) at the Institute of Agro-Products Processing Science & Technology (IAPPST), CAAS

MSc. Gao Yuan (Research Institute of Agro-Products Processing Technology & Science CAAS) in the area of Food Processing Food Technology INTA Institute



## Results obtained



Award for best research

2013 International Nonthermal Food Processing Workshop

3 published manuscripts  
and 2 in review

6 communications to  
scientific meetings

Better job of application  
in industry



PUBLITEC Award





# Training in human resources

## Argentine counterpart



2 doctoral thesis in progress

2 grade dissertations completed

2 grade dissertations in progress

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# Argentine-Chinese beef track project for meat quality and safety

## Coordinators

Guillermo Giovambattista Argentina

Boli Gou China

Participants: IGEVET (CONICET-UNLP), Balcarce Integrated Unit - INTA, Veterinary School, UNLP

Institute of Agro-Food Science & Technology CAAS

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## Objective

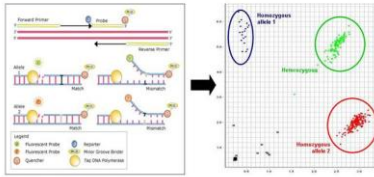


Figure 1. DNA genotyping using Tagman®



Design and validate a comprehensive DNA genotyping system to guarantee meat traceability, quality and safety under the context of meat trading between Argentina and China

Cooperation  
with  
Companies

Asociación Argentina de Brangus, Asociación Argentina de Bradford, Asociación Argentina de Criadores de Limousin, Frigorífico Frigolar S.A., Cabaña Flores Chicas de Areco, Cabaña La Trinidad, Cabaña El Oriental – San Carlos, Wagyu del Sur, Cabaña Don Federico, Cabaña Los Ombues



# Other Joint Projects

Alternative technologies for bone and blood protein utilization in food and feed industries

INTI Meat Department, Industrial Biotechnology, Yeruvça S.A., Biagro S.A. IAFST-CAAS

2014

Extrusion technology of plant proteins  
INTI, UNL CAAS, Jiangsu Muyang Group



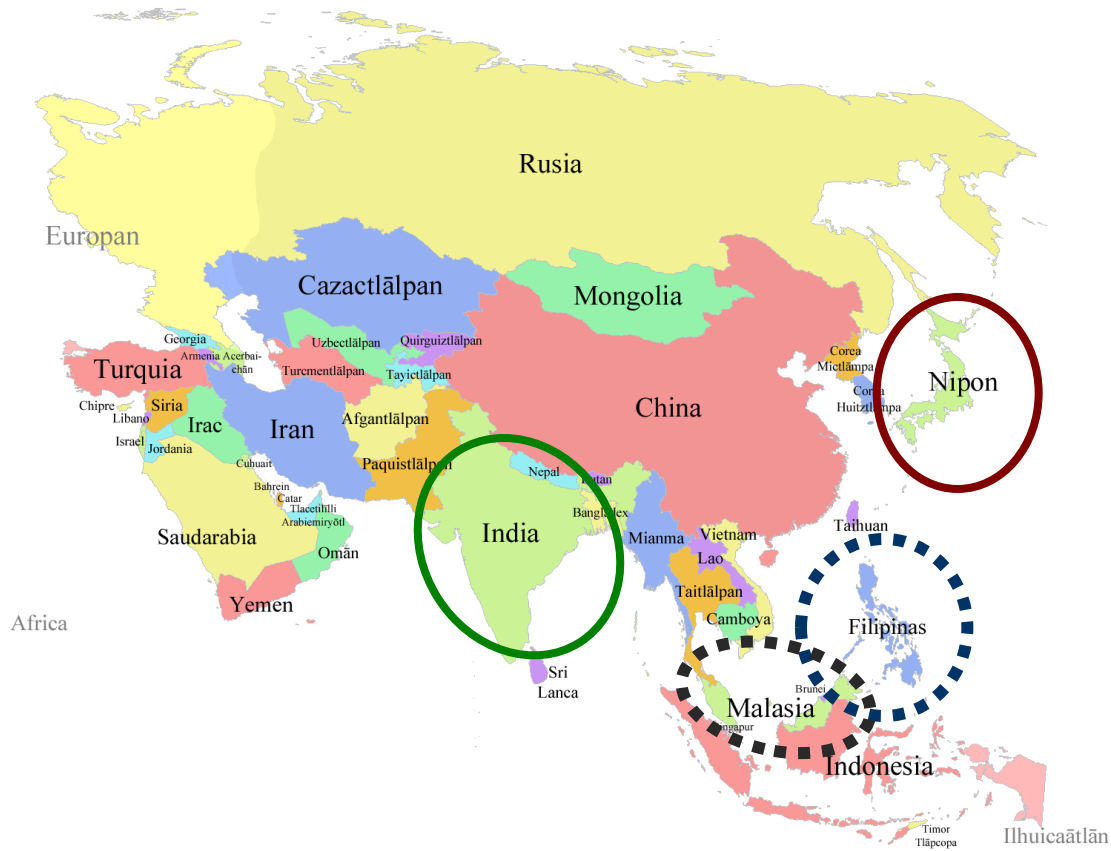
Processing technology of plant proteins with improved functional properties

CIDCA (UNLP CONICET), IIFP (UNLP CONICET)  
IAPPST, CAAS





# Others activities of MINCyT with ASIA





Thanks for your attention

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