

How could the CGRA be organized in South America: Data, models and others challenges



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Labex United States of America

Introduction

Embrapa's Virtual Laboratory Abroad began in the United States in 1998. The opportunity was made possible by a cooperation agreement with the [Agriculture Research Service \(ARS\)](#), with funding from the PRODETAB (Support Project for the Development of Agricultural Technology to Brazil), through a loan taken from the World Bank.



With more than 2,200 scientists, ARS is the [United States Department of Agriculture \(USDA\)](#) institute for agricultural research. Its goal is to solve agricultural problems in the country and provide access and dissemination of information to: ensure high-quality food and food security; assess the nutritional needs of Americans; sustain a competitive agricultural economy; enhance the natural resource and environmental base; and provide economic opportunities for rural workers, communities and society as a whole.

Since 1998, several of Embrapa's researchers have been posted at Labex United States and have conducted research jointly with American researchers in areas such as breeding and genetic resources, animal health, nanotechnology, biotechnology, climate change, among others.

International operations

- Scientific Cooperation
 - Labex Program
 - [Labex United States of America](#)
 - Labex Europe
 - Labex South Korea
 - Labex China
- Technical Cooperation
- Global policies
- Technological business
- Secretariat of International Affairs
- News

Agriculture

- Technological Innovation
- Agribusiness and Commercialization
- Agricultural Health and Food Safety
- Management in Rural Territories
- Food Security
- Natural Resources and Climate Change
- Strategic Analysis

Action in the countries

- RURAL AND ECONOMIC TRANSFORMATION THROUGH STRATEGIC VISIONING
- CARDI VACANCY-Group Dynamics/Clustering Specialist
- IICA Canada Newsletter April - June 2015

Events

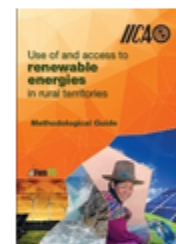
- 2015 Borlaug Dialogue International Symposium - Borlaug 101: Fundamentals of Global Food Security
- Novena Reunión Latino Americana y del Caribe de Biotecnología Agropecuaria y Forestal



Countries settle on a Proposal for the financial strengthening of IICA

Select country ▼

Publications



More Special Features

Office of the Director General

IICA Strategy
2014-2018 | 2010-2020

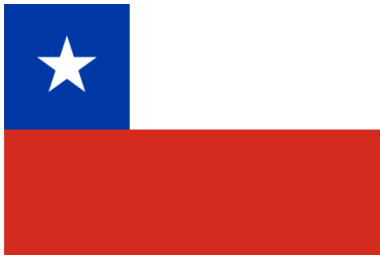
Scholarship Postgraduate Studies

Visiting Professionals Initiative



Argentina

- Scientists and research programs studying the agriculture vulnerability, adaptation and mitigation to climate change impact;
- Main crop models: DSSAT, STICS, APSIM, CropSys
- Main Crops: maize, wheat, soybean, sunflower, sugarcane, intercrops/grass;
- Institutions: INTA, Universidad de Buenos Aires and Universidad Nacional del Centro dela Provincia de Buenos Aires.
- good network of meteorological observation



Chile

- Chile has carried on impact studies in the agricultural sector for the IPCC Second National Communication. Based on estimated crop yield impacts the economic impacts for the sector were assessed
- There are ongoing initiatives regarding the integration of crop models with hydrological models to study impacts of water availability and integrated assessments at a basin scale;
- There are some active groups working on crop models but experiments for calibration and validation have not been organized and are not always available to all groups.
- Models: DSSAT, CropSyst and EPIC.
- Crops: maize, wheat, and potato.
- Institutions that could join in: INIA, CIREN, Universidad de Chile and Pontific Catholic Chile University.
- Excelen network of meteorological observation



Uruguay

- Climate change and variability studies, impacts and adaptation options.
- Development of products and information systems for planning and decision making support, related with climate in agriculture production.
- **main studies are:**
 - Impacts and adaptation of agriculture to climate variability and extreme events (INIA – INTA);
 - Information systems: soil water, and crops and pasture production monitoring and forecast, based on climate perspectives (INIA – IRI).
 - Models used: DSSAT, Century, water balance model, PPNA,
 - Remote sensing (Modis, Landsat, NOAA).
 - Climate estimation methods (IRI techniques).
 - good network of meteorological observation



Colombia

INSTITUTIONS/PROGRAMS:

- *Red Interinstitucional de Cambio Climático y Seguridad Alimentaria- RICCLISA.*
- *Red Climática Colombia y Modelación de Clima Escenarios - INSTITUTO DE HIDROLOGÍA, METEOROLOGÍA Y ESTUDIOS AMBIENTALES – IDEAM.*
- *Red Climática Cafetera – CENICAFÉ / Plataforma Agroclimática Cafetera / Xue Mulador.*
- *Red Climática Caña de Azúcar – CENICAÑA / Plataforma de Información.*
- *Uso de modelos de Clima PRECIS – MarkSim – WorldClim - CIAT.*
- *Herramienta para toma de decisiones agropecuarias – AgroNet – MINISTERIO DE AGRICULTURA Y DESARROLLO RURAL - MADR.*

CROPS: papa, frijol, yuca, maíz tradicional, maíz tecnificado, platano, caña de azucar, café, cacao, pasturas, forestales.

MODELS: CREFT – DSSAT – AQUACROP – APSIM – ARC/APEX

good network of meteorological observation



Peru

Scientific activities

Climatic extreme events: methodologies for scenarios development, economy.

Climate Change: impact assessment studies for the 07 major economic Peruvian crops.

Potato pilot crop modeling: description of on-going activities and location sites.

The Information technology: infra-structure, personnel and institution involved were presented.

CROPS: potato, rice, yellow corn, coffee, sugarcane, *platano* and starchy corn.

Institutions: Senamhi, CONCYTEC, INIA and Ministerio de Agricultura y Riego.

good network of meteorological observation



Paraguay:

- Good network of meteorological observation
- Development of products and information systems for planning and decision making support, related with climate in agriculture production.
- Needs support to improve crop model structure
- Intitution – MAG-IPTA



Bolivie:

- Good network of meteorological observation
- Development of products and information systems for planning and decision making support, related with climate in agriculture production.
- Needs support to improve crop model structure
- Institution - INIAF

First Option



CGRA



Labex USA/ARS



Second Option



CGRA



Inter-American Institute for Cooperation on Agriculture
Sowing innovation to harvest prosperity

Labex USA/ARS



Third Option



CGRA



Inter-American Institute for Cooperation on Agriculture
Sowing innovation to harvest prosperity

