

French Nationals in the ICRISAT Family

Governing Board Members:

F Bour, 1972-77
GJ Vallaëys, 1978-83
C Charreau, 1984-90
P Dubreuil, 1991-97
Marc Latham 1992 - 2003



Marc Latham

Present staff members:

Farid Waliyar, Director-West and Central Africa, has been working with ICRISAT in various capacities since August 1986.



Farid Waliyar.

Vincent Vadez, Assistant Research Program Director-Dryland Cereals & Principal Scientist (Plant Physiology) has been with ICRISAT-Patancheru since 2004.



Vincent Vadez.

PCS Traore, Manager-GIS (Resilient Dryland Systems) since 2000

Past staff members:

A Billard, French Editor (1981)
VY Guiragossian, Sorghum Breeder (1970-1993)
A Lambert, Plant Breeder (1976-1980)
M Pimbert, Entomologist (1988-1991)



PCS Traore.

Past CIRAD staff members at ICRISAT:

In West and Central Africa:

Alain Ratnadass, Sorghum Entomologist, 1989-2000 and 2008-2011

Benoit Clerget, Crop Physiologist, 2000-2009

Fabrice Sagnard, Agronomist, 2005-2008

Pierre Grard, *Striga* management in Mali, 1994-1997

Jacques Gigou, Agronomist, 1994-1997

Patrick Salez, Agronomist, 1989-1992

Jacques Chantreau, Sorghum Breeder, 1993-1997

C Luce, Sorghum Breeder, 1989-1993

G Hoffman worked on weeds including *Striga* management in Mali, 1989-1994

A Mayeux, Project Manager - Groundnut CFC funded project

In India:

Fabrice Pinard, Post-Doctoral Fellow, Tissue Culture of pearl millet, 1989-1991

Michel Peterschmitt, Post-Doctoral Fellow, Virology, 1988-1990

François Poul, Post-Doctoral Fellow, Virology, 1990-1992

Cécile Grenier, Research Scholar, Genetic Resources, 1997-1999



Benoit Clerget.



Fabrice Pinard.



Cécile Grenier.

About ICRISAT



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa with a wide array of partners throughout the world. Covering 6.5 million square kilometers of land in 55 countries, the semi-arid tropics have over 2 billion people, and 644 million of these are the poorest of the poor. ICRISAT and its partners help empower these poor people to overcome poverty, hunger, malnutrition and a degraded environment through better and more resilient agriculture.

ICRISAT is headquartered in Hyderabad, Andhra Pradesh, India, with two regional hubs and four country offices in sub-Saharan Africa. It belongs to the Consortium of Centers supported by the Consultative Group on International Agricultural Research (CGIAR).

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France and ICRISAT

Together we make lives better in the Semi-Arid Tropics

Introduction

France was a founding member of the CGIAR in 1971, and her ties to the CGIAR system are well established. In particular, France has a strong interest in the agricultural development of West Africa. ICRISAT has enjoyed support from France for over three decades, starting with a contribution in 1979 towards the establishment of ICRISAT's Sahelian Center in Niamey, Niger. An extremely welcome contribution was in 1996 when France contributed additional funds to help ICRISAT tide over its financial crisis.

Along with research for development, ICRISAT sees the need for more effective social assistance programs to help the poorest of the poor connect to markets, but in a way that builds their own resilience rather than creating dependency. ICRISAT's Inclusive Market-Oriented Development (IMOD) strategy focuses on helping the farming poor in the drylands to move from a subsistence to market-oriented agriculture, thus improving their incomes and livelihoods.

Interactions between France and ICRISAT

Over the last few years there have been a variety of interactions between France and ICRISAT.



Dr Rolland Guis with Team ICRISAT.

Visits - 2010: In June 2010 a five-member Marseille-Provence team visited ICRISAT-Patancheru with the purpose of discussing possible collaborative activities with French companies and research organizations in the areas of functional and therapeutic foods made from ICRISAT mandate crops.

Dr Robert Habib, Scientific Director of CIRAD in charge of the Performance of Tropical Production and Processing Systems (Persyst) visited ICRISAT-Sadoré.

2009 and 2008: In 2009 Dr Rolland Guis, Advisor for Africa of the DDG Research and Strategy at CIRAD visited ICRISAT-Sadoré, to review CIRAD-ICRISAT collaboration in West Africa in the field of pest management in diversified agro-ecosystems.

A delegation from IRD-BIOCRUST visited Sadoré station in 2009 as they were interested in the use of ancient fallows there as a reference site to research basic processes and properties of biocrusts.

Dr Michel Partiot, CIRAD's Regional Director for continental West Africa



The Marseille-Provence delegation with Team ICRISAT at Patancheru.



Dr Michel Partiot with Drs Alain Ratnadass and Farid Waliyar at their meeting in Sadoré.

visited Sadoré in both years to review the research work done there.

Other: Internship agreements between ICRISAT and Montpellier SupAgro, France, saw two interns – Emilie Le Floch and Ramstein Guilla – work on ICRISAT projects in 2010 and 2009, respectively.

Université Paris-Sud and ICRISAT implemented a nine-month project, *Quantification of genetic differentiation between early and late millet varieties in Niger – Contribution to multilocal traits*, from June 2010 to February 2011, with Dr Bettina Haussmann as coordinator.

Research Projects

ICRISAT has a long history of association with researchers from the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), Institut National de la Recherche Agronomique (INRA) and Institut de Recherche pour le Développement (IRD), especially in West Africa.

Many collaborative projects have been successfully implemented in the past with telling effect. Some of the projects are as follows:

- CIRAD: *Sustainable management of agricultural biodiversity in Mali (2010-2013)*: The objective of this project is to implement FAO-TIRPAA (Traité International sur les Ressources Phytogénétiques pour l'Alimentation et l'Agriculture) principles concerning indigenous genetic sorghum resources; and to promote breeding programs, management and protection activities relating to sorghum in order to promote close cooperation between

local farmer organizations, NGOs, and established research centers in Mali. CIRAD is the implementing agency and ICRISAT, IRD, Institut d'Économie Rurale (IER), Comité National de la Recherche Agricole (CNRA), Association of Professional Farmer Organizations (AOPP), Association Malienne d'Eveil au Développement Durable (AMEDD) and Groupe de recherche d'actions et d'assistance pour le dév communautaire (GRAADECOM) are partners in this project.

- CIRAD: *Sweet sorghum: an alternative energy crop (2009-2014)*: CIRAD leads this project and partners include ICRISAT, Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA), KWS (KWS SAAT AG, Germany), Institute for Energy and Environmental Research (IFEU), University of Bologna (UNIBO), University of Piacenza (UCSC), Agricultural Research Council – Grain Crop Institute, South Africa (ARC-GCI), Universidad Autónoma de Nuevo León, Mexico (UANL), and Renewable Energies WIP KG, Germany (WIP). The purpose of this project is to develop bio-ethanol production in temperate and semi-arid regions from sweet sorghum through genetic enhancement and improvement of cultural and harvest practices.

- IRD-CIRAD-INRA-SupAgro: The Agropolis Resource Center for Crop Conservation (ARCAD) project (2009-2013) is supported by the Agropolis Fondation and the Region Languedoc-Roussillon. Its aim is to set up a new open multi-function platform devoted to the assessment and improved use of plant agro-biodiversity in Mediterranean and tropical regions. ICRISAT is one of the international partners of the research component on crop adaptation to climate change. Other partners are IRAG (Guinea), FOFIFA (Madagascar),



Farmers in Mali evaluating their sorghum crop.

AGRHYMET(CILSS), the University of Minnesota (USA) and the University of Aarhus (Denmark).

- IRD: *Novel staple food-based strategies to improve micronutrient status for better health and development in sub-Saharan Africa (INSTAPA 2008-2013)*: IRD (UMR NUTRIPASS) and ICRISAT are involved in the European FP7 project INSTAPA coordinated by Wageningen University (11 partners involved). The aim of INSTAPA is to study different strategies to improve the micronutrient status of vulnerable groups in sub-Saharan Africa. In this project, IRD, ICRISAT and IRSAT (Institut de Recherche en Sciences Appliquées et Technologies)-DTA (Burkina Faso) are working together to assess the outcome of micronutrients (iron and zinc) in biofortified millet and sorghum (selected by conventional breeding), during traditional processing.

CIRAD and ICRISAT

In 1989 the collaboration between ICRISAT and France entered into a new phase following the integration of a team of CIRAD scientists into ICRISAT's West and Central Africa (WCA) sorghum improvement program based at Bamako, Mali. This collaboration lasted eight years during which the institutes implemented several research projects within four sub-programs of CIRAD each headed by a CIRAD scientist. It was made possible thanks to support from the French Government through the Ministry of Cooperation and direct support from CIRAD, which amounted to 10.000.000 FF (US\$ 1.4 million) and 3.000.000 FF (US\$ 426,000), respectively during the period. The outcomes of these collaborative efforts are presented in a joint CIRAD-ICRISAT publication, *Sorghum Improvement in West and Central Africa*.

Dr Kirsten vom Brocke, a sorghum breeder with CIRAD, was seconded to the ICRISAT-Mali station at Samanko in 2008, and is responsible for the sweet sorghum breeding activities in Mali within a project on biofuels supported by the International Fund for Agricultural Development (IFAD). She is also coordinating the technology adoption and diffusion objective of the *Harnessing Opportunities for Productivity Enhancement (HOPE) of sorghum and millets in sub-Saharan Africa and South Asia* project in WCA.



Dr Kirsten vom Brocke.

From 2008-11, Dr Alain Ratnadass, a CIRAD entomologist worked at ICRISAT-Sadoré as Integrated Pest Management (IPM) specialist, developing in cooperation with NARS, agroecological options for sustainable management of food crops (sorghum, millet, and cowpea), and horticultural crops, particularly within ICRISAT-promoted drought-resilient cropping systems, such as the African Market Garden.

From 2000 to 2009, Dr Benoit Clerget, of CIRAD worked at ICRISAT-Bamako, on sorghum plasticity, which studied the effects of photoperiodism on the growth of improved and photosensitive varieties.

Dr Fabrice Sagnard, Principal Scientist, CIRAD worked at ICRISAT-Nairobi on the project, *Environmental risk management of genetically engineered sorghums in Mali and Kenya*, from 2005 to 2008.

IRD and ICRISAT

IRD and ICRISAT have been collaborating in the field of agrobiodiversity and identification of agronomical genes. Together with IRD, CIRAD, and INRAN (Niger) scientists, ICRISAT scientists Bruno Gérard and Jupiter Ndjeunga studied *Changes in pearl millet and sorghum diversity in Niger* (1986-2003). The results revealed no major changes in variety and genetic diversity but significant changes in the phenotype of local pearl millet landraces. The study led to ongoing collaboration between Yves Vigouroux's team (IRD) and Bettina Haussmann and Tom Hash (ICRISAT) to identify genes involved in crop adaptation to climate change. A PhD student (Niger), co-advised by Y Vigouroux and B Haussmann, benefits from an IRD grant to work on the genetics of pearl millet resistance to *Striga*.

IRD and ICRISAT are also collaborating in the field of food science and nutrition. This work also involves IRSAT-DTA (Burkina Faso). A researcher from IRSAT is doing a part of her PhD on the effects of processing on the bioavailable mineral contents in traditional and biofortified varieties of sorghum and millet. Eva Weltzien (ICRISAT-Mali) provided the biofortified varieties and is a member of the PhD committee.

Conclusion

The future lies in the globalization of agriculture. ICRISAT welcomes relationships and partnerships, such as it has with the Government of France. ICRISAT is grateful for the generous financial and technical support of France, which must be sustained and enhanced in the years to come.