

World Coffee Research

at The Norman Borlaug Institute at Texas A&M University

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worldcoffeeresearch.org

EXECUTIVE SUMMARY

ADVANCING RAPIDLY *This year WCR transitioned from a start-up to a full-fledged international R&D organization operating in 15 producing countries*

A DOZEN ACTIVE PROJECTS

KEY FINDINGS AND CONTRIBUTIONS

MORE PARTNERSHIPS AND INFRASTRUCTURE *(the farm in El Salvador)*

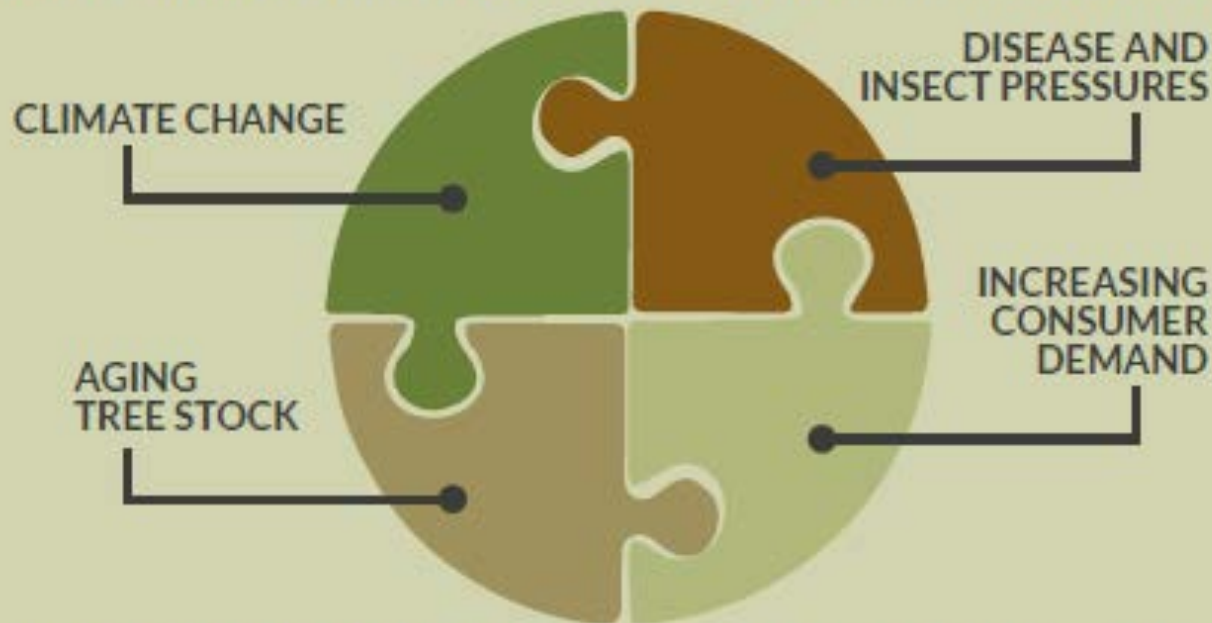
THIS IS A VITAL STRATEGIC DIRECTION FOR THE COFFEE INDUSTRY

YOUR INVOLVEMENT IS CRUCIAL IF WE ARE TO TRULY ACHIEVE THE VISION

OUR WORK

World Coffee Research is a collaborative agricultural research dedicated to protecting the future of coffee. By providing new and innovative technologies to advance coffee production, we aim to increase productivity and quality, contributing to long-term supply chain sustainability. We are based at the Borlaug Institute at Texas A&M University and operate through a network of 20+ coffee research institutions and advanced scientific institutions worldwide.

MAJOR SUPPLY CONSTRAINTS AND THREATS FOR COFFEE IN THE 21ST CENTURY



WCR was created by the coffee industry to provide solutions to coffee production and quality constraints.

This report covers World Coffee Research activities, highlights and results for the period from January 1, 2014 to December 31, 2014.



CENTRAL AMERICAN RUST RESEARCH IMPACT

2015: Productivity Gains
Continual genetic updating
to stay competitive



USAID

DR. PUEBLO DE LOS ESTADOS
UNIDOS DE AMÉRICA



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

\$5 Million Dollars

RESEARCH HIGHLIGHTS

COMBATING DISEASE Providing Central American coffee producers with better, higher quality, stronger rust resistant varieties and related training

IMPROVING SEED STOCK Addressing the challenges the coffee sector faces from not having an associated seed industry and increasing the amount of seed options available to farmers

EXPANDING DIVERSITY Unlocking novel genetic diversity

BREEDING FOR THE FUTURE Establishing a comprehensive breeding and pre-breeding programs to rapidly introduce new, higher performing varieties into the marketplace

STRATEGIZING FOR CLIMATE CHANGE Unlocking genetic clues that will help us respond to changing weather patterns and climate-related risks in the supply chain

BUILDING NEW ORIGINS Working in areas such as the Democratic Republic of Congo and Yemen to build up new, viable producing countries

IMPROVING SENSORY LANGUAGE AND QUALITY SYSTEMS Advancing the language and methods to determine quality, providing the foundation for future quality initiatives

PROJECT **DETAIL**

The International Multi-Location Variety Trial (IMLVT)

For the first time, coffee farmers in a given country are able to compare their varieties with varieties from fourteen different producing countries. Never before has this type of global variety exchange taken place. This program will expand the amount of variety material available and results from the IMLVT allows producers to swap their current varieties with new and improved ones designed to increase productivity and quality. In addition to expanding what is available, more information and knowledge is being made available to guide farmers to the best decision for their specific needs, with the goal of improving return on investment.

WCR has assembled the thirty best and most representative high-performing varieties from six different countries and has begun multiplying them in sterile in-vitro cultures, minimizing phytosanitary constraints. In 2014, 135,000 plantlets began shipping to nineteen producing countries and in 2015, additional varieties are being distributed and nursery plots are being seeded.

Variety Origin	Variety Name
Brazil	<i>Catiga MG2, Catuai V IAC144, IPR103, IPR107, Mundo Novo 379/19, Paraiso</i>
Colombia	<i>Col1, Col2, Col3, Col4, Col5</i>
Costa Rica	<i>CR95, Venecia</i>
Ecom Cirad	<i>EC15, EC16, Marsellesa</i>
El Salvador	<i>Pacamara</i>
Honduras	<i>Lempira, Parainema</i>
India	<i>S.795, S4808, Sln.5B, Sln.6</i>
Indonesia	<i>AB3, Andungsari, BLP10, BP429A, BP432A, Kartila 1, USDA762</i>
Kenya	<i>Batian, K7, Ruiru, SL28</i>
Mexico	<i>Oro Azteca</i>
Panama	<i>Geisa</i>
Promecafe	<i>H1</i>
Experimental/Illy	<i>Aramosa, Bourbon BAS, Bourbon BVS, Caturra, Mundo Novo PB, Naomi</i>
PNG	<i>Arusha, Bourbon, Catimor, Caturra, Mundo Novo, Typica</i>

KEY ACCOMPLISHMENTS for this reporting year include:

- *Dr. Benoît Bertrand, one of the world's foremost Arabica coffee breeders, is now on-board as WCR breeding and pre-breeding program chief*
- *Partnership with CIRAD established*
- *WCR has incorporated highly diverse CORE population through pollen harvesting techniques in its breeding program in 2015*
- *National programs began selecting their own elite materials to contribute to the WCR database*
- *The Central American Rust Research program was leveraged to initiate two breeding programs, to create high-yielding next-generation F1 hybrids with high cup quality and superior resistance to Coffee Berry Disease (CBD) and to strengthen the resistance to rust in new introgressed varieties to combat future, more virulent rust epidemics*