



Simposio “Cacao para la Paz” Mapeo del futuro de investigación del cacao en la Región del Caribe Colombiano

MAYO 17 - 19. BARRANQUILLA, COLOMBIA



Summary of Team Building Session May 18, 2017

Team Building Session Rules

(2 sessions, 20 min each)

- Select a research topic and take a seat at the table
- Each group needs to address the following questions:
 1. Select a research question to be addressed
(this could be new projects or an existing project that could be expanded with finding from CfP to bring new inter-institutional collaborations)
 2. Discuss the research objectives and research approach
 3. Discuss potential roles of collaborators
(The projects should be inter-institutional and interdisciplinary, so you should try to develop ideas and teams that can include a wide diversity of participants and approaches)
- Select a reporter to summarize and report on the discussion
- For the second session, participants can change to new table if interested on a different topic

Summary of Group Reports (Cadmium)

It can be found in:

- In plants
- In soils
- In post-harvest

Topics to investigate: Soil-plant Cd relations

- How does the Cd cycle effect soil-Cd relations
- Mapping Cd hot spots in soil
- Bioremediation (bacteria, fungi, mycorrhizae
- Cacao genotypes
- Molecular basis of differential Cd uptake
- Cd in chocolate
- How to map Cd? Need to focus area of study

Potential Partners:

USDA-ARS, UPRA, National University, Fedecacao, National Univ. other univ. Corpoica, National Chocolate Co., CIAT, Casa Luker, others

Summary of Group Reports (Genetics)

Research Question:

Farmers use old low yielding varieties, are there new clones that will perform well in Caribbean region?

Approach:

- Take top 25 new clones and do multi-locational trial in Caribbean region
- Select 5 best (what is best? Yield, quality)
- Demonstration trials
- Deliver best to farmers

Potential participants:

USDA-ARS, CIAT, MARS, Penn State, CORPOICA others

Summary of Group Reports (Soil and Water)

- **Proposal to Create a “Rapid response soil fertility system” that will provide information on:**
 - Nutrients
 - Cd
 - On the spot analysis and recommendations
 - Cell phones image analysis
 - Fertility diagnosis using photos
 - Ground up data delivery, farmer-farmer dialog to spread the word
 - Soil health program, minimum data set, microorgs, organic carbon content etc.
- **Potential participants:**
Penn State, CIAT, CORPOICA, Fedecacao, UPRA others, Nationa

Summary of Group Reports (Research on Tech Transfer)

Research Goal: “ To improve adoption of new technologies”

Research Questions:

- What do farmers think they need and their motivators
- Discover main limitations to adoption
- Public and private institutions
- Surveys, in main producing areas
- Systems that are more feasible, less expensive
 - Knowledge networks, producer to producer projects

Potential participants:

Corpoica, Penn State, Fedecacao, others

Summary of Group Reports (Marketing)

Research Question: How to position Colombia in the world-wide cacao market with specific focus in US?

Approach:

- Identify market niches
- Incentivize consumption in Colombia and US
 - Business agendas
 - Participation in international cacao fairs
 - What niches are there and what cacao can satisfy these niches
 - Promote image of Colombian Cacao
 - Maria del Campo... strengthen this marketing effort
 - Marketing of cacao story
 - Certification of child labor
 - Post conflict era story, added value

Potential participants:

Fedecacao, Corpoica, Casa Luker, Nutressa others

Summary of Group Reports (Disease control)

Background: Diversity of cacao diseases

- Linked to genetics projects
- Sampling of pathogens and diversity analysis

Approach: Integrated crop management

- Many good technological packages exist, can we make a unified agreement on best practices?
- Multilocational trials of ICM packages
- Demo trials on best ICM packages
- Once validated, distribute the information

Potential participants:

USDA-ARS, Mars, Corpoica, Fedecacao, others

Summary of Group Reports (Post-harvest Issues)

Research question:

Transportation of wet beans is a problem in SNSM, unfermented or under-fermented beans

- How to improve?

Approach:

- Biochemical and genetic data to develop quantitative model to predict sensory profiles of the cacao
- Methods to respond to different market niches
- To reduce toxins produced by fungi (aflatoxins)
- Developing co-products
- Coca farmers \$3/da in loco
- Cacao purchasing strategies to increase to same or better level than for coca

Potential participants:

Corpoica, Asociaciones de productores, Fedecacao, Universidad de Antioquia, Peace corps, Penn State

Summary of Group Reports (Mapping)

Not a research issue, but need for planning purposes: **Integrate with new techniques to provide farmers with specific actionable information**

Needs for research sector

- Cd presence (1:100,000 map of Cd, more detailed in some areas)
- Biodiversity mapping
- Disease presence maps
- Underground water mapping for irrigation

Potential Participants: CORPOICA, Agustin Codazi, IGAC, ICA, Humboldt Inst., MOA, MOE, local Universities and governments, UPRA, PSU Center for Environmental Informatics, CIAT