PROGRAMME

INNOVATIONS TO SUPPORT MARKET DEVELOPMENT AND PROMOTE THE SUSTAINABILITY OF COCOA FARMING FOR BETTER FARMER INCOME
### Sunday 4 December 2022

- **13:00 – 18:00**  
  Registration

### Monday 5 December 2022

- **08:00 – 09:00**  
  Registration

**09:00 – 11:00**

**OPENING CEREMONY (INAUGURAL SESSION)**

**Welcome speeches**
- Introduction by Master of Ceremony, Mr. Martijn ten Hoopen
- A representative of the Ministry for Europe and Foreign Affairs
- Mayor of the Montpellier City Council or another Local Representative
- Narcisse Olinga - Vice Chairman of the International Cocoa Council (ICC)
- Michel Arrion - Executive Director (ICCO)
- Jean Paul Laclau - Directeur du département Persyst - CIRAD
- A Representative from MUSE (Université de Montpellier d’Excellence)

**ofi**

"Cocoa agroforestry at ofi: An opportunity for ecologically, economically and socially resilient landscapes”

Dr Léonie Bonnehin-Verrier, West Africa Cocoa Agroforestry Head

**Symposium Keynote Speaker**

Juan Lucas Restrepo

Director General of the Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT)

**11:00 – 11:30**  
Coffee break

**SESSION 1**

**COCOA CULTIVATION: INNOVATIVE APPROACHES AND PRACTICES FOR SUSTAINABLE PRODUCTION**

**AUDITORIUM PASTEUR - PLENARY SESSION**

**BAYER**

“Maoyé, a Bayer initiative for a certified cocoa”

**Farmers living incomes**

Christopher L. Gilbert
The Impact on Farmers of the Cocoa Living Income Differential, SAIS Europe, Johns Hopkins University.

Yuca Rosalinde Waarts
How to achieve a living income for different types of cocoa and coffee farming families? Wageningen University & Research.

Ludovic Temple
Sustainable competitiveness of the cocoa sector in Ecuador: issues of integrated socio-ecological governance, CIRAD.

Maja Slingerland
Standardization of Living income benchmarking and knowledge gaps in farmer income assessment in cocoa farming. How to proceed? Wageningen University & Research.

Hammond Mensah
Service delivery models in the West African cocoa sector: is a smart mix able to close the income gap for cocoa farmers in a responsible and sustainable manner? Solidaridad.

**Q&A session**
**AUDITORIUM PASTEUR - PLENARY SESSION**

**14:00 – 16:00**

Soil fertility & fertilizers

Rich Kofi Kofituo  
*Processes for Knowledge Transfer and Related Efficiencies: A case of the CocoaSoils, International Institute of Tropical Agriculture (IITA).*

Lotte Suzanne Woittiez  
*The CocoaSoils nutrient offtake model: preliminary results from on-farm trials, Wageningen University & Research.*

Thomas Fungenzi  
*Evaluating long term soil organic matter dynamics of cocoa farms in Indonesia, Cranfield University.*

Deo-Gratias J. M. Hougni  
*The role of litter decomposition in nutrient cycling in cocoa, Wageningen University & Research.*

**Q&A session**

Ekatherina Vasquez  
*Innovative data collection in collaborative cocoa fertilizer trials, Wageningen University & Research.*

Leonard Rusinamhodzi  
*A stepwise approach to achieve the best agronomic management practices and sustainable fertilizer use in West African cocoa production, International Institute of Tropical Agriculture (IITA).*

Joost van Heerwaarden  
*Multi-locational nutrient response trials for the development of cocoa fertilizer recommendations, Wageningen University & Research.*

**Q&A session**

**16:00 – 16:30**  
**Coffee break**

**Keynote Speaker Session 1**

Teja Tscharnkte  
*Professor of Agroecology at the University of Göttingen*

**Q&A session**

**17:15 – 18:00**  
**POSTER SESSION**
Tuesday 6 December 2022

**PARALLEL SESSIONS**

**SESSION 1**
COCOA CULTIVATION: INNOVATIVE APPROACHES AND PRACTICES FOR SUSTAINABLE PRODUCTION (CONTINUED)

*AUDITORIUM PASTEUR*

**08:00 – 10:00**

**SESSION 1**

**Pest and disease**

**Jacqueline Mary Barnett**
Development of immunoassays to detect Cocoa Swollen Shoot Virus, University of West of England.

**Marcos Javier Ramos Chera**
A novel method for estimating pest and diseases related yield loss in cacao pods in the Peruvian Amazonia, CIRAD.

**Régis Babin**
The « BarCo » project: for the promotion of barrier crops to curb the expansion of the Cocoa swollen shoot virus in Côte d’Ivoire, CIRAD.

**Ulson Vanderlei Lopes**
Preventive Development and Testing of Clones Resistant to Frosty Pod Rot in Brazil, Cacao Research Center (CEPEC/CEPLAC).

**Mónica Arias**
Several enemies at the same time: interaction between two cocoa pod diseases and a cocoa pod borer and their impact in Peruvian agroforestry systems, CIRAD.

**Lina Tennenhardt**
How does labour availability influence pesticide use on cocoa farms? Research Institute of Organic Agriculture (FiBL).

**Ade Rosmana**
Composted plant residue amendments in integration with Trichoderma asperellum suppresses above-ground diseases and improves the growth of cacao (Theobroma cacao L.) Hasanuddin University.

**SESSION 2**
SUSTAINABLE COCOA AND CLIMATE CHANGE: THE WAY FORWARD THROUGH MITIGATION AND ADAPTATION

*AUDITORIUM EINSTEIN*

**08:00 – 10:00**

**Overview and Intro**

**Keynote Speaker Session 2**
**Rolando Cerda**
Researcher and professor in the Tropical Agricultural Research and Higher Education Center (CATIE).

**Q&A session**

**Wiebke Niether**
The contribution of cocoa agroforestry on yields, soil, pests, biodiversity and climate change: a multi-dimensional meta-analysis, University of Giessen.

**Fiona Lahive**
The importance of empirical data in accounting for the long-term and interactive effects of climate change on cocoa, University of Reading.

**Alina Găinușă-Bogdan**
Towards a climate-smart dynamic cocoa cropping calendar? Climate42.

**Maja Slingerland**
Using the Cool Farm Tool and Perennial crop model used to benchmark the climate change mitigation potential of cocoa systems, Wageningen University & Research.

**Coffee break**

**10:00 – 10:30**
Tuesday 6 December 2022

10:30 – 12:30

**AUDITORIUM PASTEUR**

**Good Agricultural practices**

**Kam Rigne Laossi**
Impact of pruning intensities on cocoa tree productivity, pest (mirids) and disease (black pod disease) infestations on farmer field trials in Côte d’Ivoire, ofi.

**Stéphane N’Dah Konan**
DEXiCacao: a new tool to assess the overall sustainability of cocoa-based cropping systems, Université Félix Houphouët-Boigny.

**Luis Orozco Aguilar**
The MOCCA project—Cocoa Pod Survivorship Curves to Improve Yield Forecasting Method, Lutheran World Relief.

**Arun Kumar Pratihast**
Digital tools and Ontology: A Collaborative Pathway For Managing & Sharing Cocoa Data, Wageningen University & Research.

**Tatiana Inés Restrepo Quiroz**
Development of new cacao elite cultivars for the sustainability and competitiveness of the supply chain in Colombia, Compañía Nacional de Chocolates S.A.S.

**Abigail Tettey**
An Overview of The Potential of Regenerative Agriculture in Cocoa Production, International Institute of Tropical Agriculture (IITA).

**Celine Diaz**
Effectiveness of Biostimulants as a sustainable solution for improving production of cocoa trees in Ecuador: enhancing flowering and fruit setting to improve final number of pods, weight and yield by tree, Agritecno Fertilizantes S.L.

12:30 – 14:00

Lunch break

**AUDITORIUM EINSTEIN**

**Physiology of cocoa and climate**

**Sandrine Okayo Minakou**
Leaf density, adult vegetative vigor and flushing intensity as relevant criteria for evaluating drought resistance of cocoa trees (Theobroma cacao L.), CNRA.

**Bénédicte Rhoné**
Deciphering the genetic basis of adaptation to environment in T. cacao using resequenced genome, CIRAD.

**Julian Fernando Mateus-Rodriguez**
Combined effects of elevated [CO2] and increased temperatures on cacao reproductive development, The University of Reading.

**Dominique Dessauw**
Agronomic and economic performances of improved cacao clones under different agro-ecological conditions in Costa Rica, CATIE/ CIRAD.

**Surja Chakrabarti**
Exploiting the Cocoa genetic variation for flowering time and pod development period for climate adaptation: relationship to selected yield components, Cocoa Research Centre, The University of The West Indies.

**Antonio Jesús Ariza Salamanca**
Vulnerability of cocoa-based agroforestry systems to climate change in West Africa, University of Cordoba.

**Viviana Ceccarelli**
Climate change impact on cultivated and wild cacao in Peru and the search for climate change tolerant propagation material, Bioversity International.
Tuesday 6 December 2022

AUDITORIUM PASTEUR

14:00 – 16:00
Botany/Genetics, breeding

Renaud Boulanger
Genetic bases of fruity and flora aroma of the Nacional cocoa variety, CIRAD.

Christian Cilas
How many years of evaluation are needed to select new productive cocoa clones? CIRAD.

David Guest
Mapping candidate genes for resistance to Vascular-streak dieback disease of cocoa, University of Sydney.

Boguinard Sahin Honorine Brigitte Guiraud
Breeding of cocoa (Theobroma cacao L.) genotypes tolerant/resistant to cocoa swollen shoot virus (CSSVs) in cocoa orchards infected by the disease in Côte d’Ivoire, CNRA.

Claire Lanaud
Past domestication of T. cacao in Latin America revealed by paleogenomics and analysis of methylxanthines, CIRAD.

Ramesh S.V.

Evelyn Kulesza
Unwrapping the Chocolate Transcriptome: The Gene Expression Atlas of the Tropical Crop Theobroma cacao, Penn State University.

16:00 – 16:30
Coffee break

16:30 – 17:10
Alexis Zambrano
Genetic origin of Venezuelan cacao (Theobroma cacao L.), Universidad Central de Venezuela.

Yves-Laurent Brou Assoua
Drone-based estimation of trees biophysical parameters in complex cocoa-based agroforestry systems, Université Félix Houphouët-Boigny.

AUDITORIUM EINSTEIN

Cocoa by-products

16:00 – 16:30
Keynote Speaker Session 3
Andrea Doucet Donida
Cacao Barry Global Brand Leader

Q&A session

Anna Laven
Juicy beans: an integrated concept towards cocoa pulp use and living income, independent consultant in chocolate & cacao.

Thomas Bickel Haase
Influence of Origin and Thermal Processing on the Aroma Quality of Cocoa Fruit Pulp for its Use as a Food Ingredient, Fraunhofer Institute for Process Engineering and Packaging IV.

Simeon Deo Hannes Human
Consumer perceptions of the circular economy and the Ivorian cocoa value chain, Royal Agricultural University.

17:10 – 18:00
POSTER SESSION

Digital tools

Martin Notaro
Characterisation of the digital divide and assessment of the impact of the use and non-use of digital tools in the Ivorian cocoa sector, CIRAD.

Neil Slettehaugh
Applying computer vision to cocoa bean cut test images: towards an efficient and accessible tool for evaluating physical quality Cocoa of Excellence, Alliance of Bioversity International and CIAT.
Tuesday 6 December 2022

Gala Dinner

(participants have to register prior to the event)

Domaine des Grands Chais
34130 Mauguio
**PARALLEL SESSIONS**

**SESSION 2**

**SUSTAINABLE COCOA AND CLIMATE CHANGE: THE WAY FORWARD THROUGH MITIGATION AND ADAPTATION (CONTINUED)**

**AUDITORIUM PASTEUR**

- **Climate Smart Cocoa**
  - **Ebagnerin Jérôme Tondoh**
    Changes in key soil health indicators in cocoa landscapes around Tene Forest Reserve, Université Nangui Abrogoua.
  - **Andrew James Daymond**
    A Physiological Model to Quantify Impacts of Climate Change Variables on Cocoa Productivity, University of Reading.
  - **Jean-Michel Harmand**
    Afforestation of savannah using cocoa agroforestry: impacts on ecosystem services and effects of associated tree species on soil fertility, CIRAD.
  - **Christian Andres**
    Dynamic agroforestry – a tool for successful smallholder-grown cocoa in times of climate uncertainty, ETH Zurich / Obrobibini Peace Complex.
  - **Johanna Rueegg**
    Cocoa and by-crop yields in three organic production systems entering mature stage, Research Institute of Organic Agriculture (FiBL).
  - **Evelyne Marise Assi**
    Perception of climate change and adaptations of cocoa producers in the Divo production area, Centre National de Recherche Agronomique (CNRA).
  - **Antoine Kouamé Kouadio**
    Fish farming as a way for diversifying sources of income in the cocoa sector in Ivory Coast, APDRA Pisciculture Paysanne.

**SESSION 3**

**INNOVATIONS TO SUPPORT THE COCOA PROCESSING & MARKET DEVELOPMENT**

**AUDITORIUM EINSTEIN**

- **Origin, Genetics, Quality and flavour evaluation**
  - **Christina Rohsius**
    Quality of traded raw cocoa: origin specific variation, correlations of quality determining factors and development of a “cocoa quality system, Rausch Management, Cocoa and Research.
  - **Louis Ban Koffi & Kassi Dorine**
    Physical, aromatic and sensory evaluation of cocoa beans developed by agricultural research in Côte d’Ivoire and improvement of harvesting activities and quality of cocoa beans during primary processing activities- CNRA.
  - **Ariza Budi Tunjung Sari**
    Virgin Cocoa Butter from Modified Cocoa Bean Processing, Indonesian Coffee and Cocoa Research Institute (ICCRI).
  - **Dolores Ixmucané Alvarado Rupflin**
    Development of cocoa physical reference samples for training and calibration of sensory evaluation panels: perspectives from a range of food products, Cocoa of Excellence, Alliance of Bioversity International and CIAT.
  - **Fernando Antonio Teixeira Mendes**
    First Sensory Map of Cocoa Almonds in the State of Pará, Brazil, CEPLAC.
  - **Lisa Ullrich**
    Decoding the fine flavour properties of dark chocolates, Zurich-University of Applied Sciences.
**Wednesday 7 December 2022**

### 10:30 – 12:30

#### Social Ecological Interactions and Climate

**Bonna Antoinette Tokou**
Accompanying Research on Strategies for Income Improvement of Farming Families and Sustainable Cocoa Production in Côte d'Ivoire, University Félix Houphouët Boigny and Leibniz Centre for Agricultural Landscape Research (ZALF).

**Marieke Sassen**
Variation in environmental risks from cocoa expansion and intensification in West Africa requires context specific responses, Wageningen University & Research.

**Jean Michel Harmand**
Path Dependency and Cocoa Landscape Dynamics A Cameroon case study, World Agroforestry (ICRAF).

**Renée Brunelle**
Implementing agroforestry systems in cocoa production as climate change adaptation methods - Case study from Ivory Coast, SOCODEVI.

**Dietmar Stoian**
Diversity, resilience and market orientation: A private-sector driven approach to cocoa agroforestry in Ghana, CIFOR-ICRAF.

**Sholahuddin Akbar**
Analysis of farmers income on various cocoa intercropping patterns in Indonesia, Indonesian Coffee and Cocoa Research Institute (ICCRI).

### 12:30 – 14:00

#### Lunch break

### Cadmium

**Gideon Ramtahal**
The effect of soil and foliar Zn and Mn application on the uptake of Cd levels in cacao grown on Cd-rich soils, Cocoa Research Centre, University of the West Indies.

**Erik Smolders**
Is chocolate consumption truly enhancing dietary cadmium intake in the general population? A Belgian consumption survey, KU Leuven.

**Carlos Alberto Adarme Duran**
Ureolytic bacteria that induce carbonate precipitation from cocoa farms in Santander, Colombia: cadmium distribution, isolation and application of rhizobacteria, Universidad Nacional de Colombia.

**Francisco Miguel Menéndez-Burns**
Metal Transporters involved in Cd uptake and distribution in cacao: gene function, evolution, and expression, Penn State.

**Eduardo Francisco Chavez**
Agronomic countermeasures for reducing cadmium (Cd) uptake in cacao plantations in Ecuador, Escuela Superior Politecnica del Litoral (ESPOL).

**Caleb Lewis**
Understanding cadmium accumulation in cacao and its implications for developing tools for mitigation of cadmium in cocoa beans, Cocoa Research Centre and Department of Life Sciences, University of the West Indies.
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<th>Event</th>
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<tr>
<td>14:00 – 14:10</td>
<td>AFREXIMBANK</td>
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<td></td>
<td>&quot;Opportunities for Shared Services in the Cocoa Value Chain&quot;</td>
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<tr>
<td></td>
<td>Kingsley Mbah - Senior Manager, Advisory and Capital Market</td>
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<td></td>
<td>Abah Ofon - Senior Manager, Export Development Advisory</td>
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<tr>
<td>14:10 – 15:30</td>
<td>Presentation of session reports</td>
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<td>15:30 – 16:30</td>
<td>Discussions</td>
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<td>16:30 – 17:00</td>
<td>Coffee break</td>
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<tr>
<td>17:00 – 18:00</td>
<td>Closing Remarks of the 2nd ICSR, suggestions for the next ISCR</td>
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**Thursday 8 December 2022**

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<th>Time</th>
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<tr>
<td>09:00 – 18:00</td>
<td>ICCO SPECIAL COUNCIL SESSION</td>
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<td></td>
<td>Meetings of INCOCOA GROUPS</td>
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<td>(INGENIC, INCOPED, INCOSOM, INAFORESTA, INCOQUALITY, INCOSOCIO)</td>
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Posters

Sessions
**Posters Session 1**

COCOA CULTIVATION: INNOVATIVE APPROACHES AND PRACTICES FOR SUSTAINABLE PRODUCTION

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<th>Poster</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>S1.1</td>
<td>Genetics resources to study Moniliophthora perniciosa</td>
<td>Rayanne França Pereira</td>
<td>Universidade Estadual de Santa Cruz – UESC</td>
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<tr>
<td>S1.2</td>
<td>Determination of hormone efficiency for propagation of cocoa (Theobroma cacao L.) by twigs in microtunnels</td>
<td>Alexander Altamirano Salazar</td>
<td>Asociación Peruana de Productores de Cacao – APPCACAO</td>
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<tr>
<td>S1.3</td>
<td>Optimization of somatic embryogenesis expression of high-value cocoa clones in the region of San Martin - Peru</td>
<td>Mar Asunción Gárate Navarro</td>
<td>Asociación Peruana de Productores de Cacao – APPCACAO</td>
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<tr>
<td>S1.4</td>
<td>Molecular chaperone modulation in cocoa leads to plant resistance to Moniliophthora perniciosa</td>
<td>Dr. Fatima Cerqueira Alvim</td>
<td>Universidade Estadual de Santa Cruz – UESC</td>
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<tr>
<td>S1.5</td>
<td>Transcriptomic (RNA-seq) analysis of genes responsive to cadmium stress in Theobroma cacao</td>
<td>Leidy Paola Delgadillo</td>
<td>Colombian Corporation Agriculture Research</td>
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<td>S1.6</td>
<td>Exploring the use of endophytes to improve grafting of T. cacao regional material with fine flavor potential</td>
<td>Prof. Alejandro Caro-Quintero</td>
<td>Departamento de Biología, Facultad de Ciencias, Universidad Nacional de Colombia</td>
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<td>S1.7</td>
<td>Participatory methodologies for sustainable technological innovation in cocoa systems: at the Colombian southwest region</td>
<td>Mónica Juliana Chavarro</td>
<td>Bioversity-CIAT</td>
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<td>S1.8</td>
<td>Innovative co-designed agro-ecological transition pathways that vary according to the historical loops of cocoa production areas</td>
<td>Martin Notaro</td>
<td>CIRAD-UMR ABSys</td>
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<tr>
<td>S1.9</td>
<td>Advances of Functional Genomics of Theobroma cacao’s defense against Phytophthora palmivora</td>
<td>Dr. Siela Maximova</td>
<td>Penn State University</td>
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<td>S1.10</td>
<td>Evaluation of the resistance against Frosty Pod Rot and Black Pod Rot of clones preserved in the International Cacao Collection of CATIE</td>
<td>Rolando Cerda</td>
<td>CATIE (Centro Agronómico Tropical de Investigación y Enseñanza)</td>
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<td>S1.11</td>
<td>Real-time Image detection of cocoa pods in natural environment using deep learning algorithms</td>
<td>Juan Pablo Rojas Bustos</td>
<td>CIRAD, UMR AGAP</td>
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<td>S1.12</td>
<td>Regeneration of the cocoa agroforestry system: an innovative approach for small family farms in northern Haiti</td>
<td>Sardou Jean-Denis</td>
<td>Agronomes et Vétérinaires Sans Frontières (AVSF)</td>
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<td>S1.13</td>
<td>Infestation dynamics of mealybug vectors of the Cocoa swollen shoot virus in young cocoa plots surrounded by barrier crops in Soubre (South-West of Côte d’Ivoire)</td>
<td>Dr. Régis Babin</td>
<td>CIRAD, UMR PHIM</td>
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<td>S1.14</td>
<td>In vitro and in vivo screening and selection of microorganisms from five composts with antagonistic effects on Phytophthora spp., the causal agent of brown rot of cocoa pods (Theobroma cacao L.) in Côte d’Ivoire, Centre National de Recherche Agronomique</td>
<td>Ohôh Bernadette Assoh</td>
<td>CIRAD, UMR PHIM</td>
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<td>S1.15</td>
<td>Promissory cacao clones with high yield potential, disease tolerance and quality to increase production in Latin America</td>
<td>Allan Mata-Quirós</td>
<td>CATIE (Centro Agronómico Tropical de Investigación y Enseñanza)</td>
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<tr>
<td>S1.16</td>
<td>Sustainable Cocoa Production – Current Practices in Côte d’Ivoire and Ghana</td>
<td>Katharina Krumbiegel</td>
<td>Joint Research Centre, European Commission</td>
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<td>S1.17</td>
<td>Do abiotic soil factors influence the spread of Swollen Shoot disease in the Soubre area - South-West Côte d’Ivoire?</td>
<td>Dr. Zokou Franck Oro</td>
<td>Université Peleforo Gon Coulibaly (UPGC)</td>
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<td>S1.18</td>
<td>Effect of temperature on the Cacao swollen shoot virus (CSSV, Badnavirus) vection by the mealybug Planococcus citri to cocoa seedlings in the laboratory</td>
<td>Dr. Régis Babin</td>
<td>CIRAD, UMR PHIM</td>
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<td>S1.19</td>
<td>Influence of soil physico-chemical properties and cocoa growth characteristics on yield components</td>
<td>Dr. Adalbert Adibimé Onana</td>
<td>International Institute of Tropical Agriculture (IITA)</td>
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<td>S1.20</td>
<td>The “bean tegument” innovation system: bringing back to smallholders’ cocoa farms the fertility lost or transferred to agro-industry</td>
<td>Dr. Francois Olivier Ruf</td>
<td>CIRAD, UMR ART-Dev</td>
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</table>
S1.21. Giulia Bongiorno, Monitoring framework of ecological performance indicators for soil health and climate smartness in cocoa production systems, Wageningen University & Research

S1.22. Dr. Jorge Ronny Díaz-Valderrama, The morphological and genetic diversity of the cacao pathogen Moniliophthora perniciosa in the Peruvian Upper Amazon, Universidad Nacional Toribio Rodríguez de Mendoza de Amazonas

S1.23. Dr. Anna Laven, Changing gender norms for sustainable cocoa production, KIT Royal Tropical Institute / Mars Wrigley

S1.24. Selma van der Haar, Cocoa rehabilitation in Western-Ghana: Farmers’ self-selection and short-term livelihood effects, Centre for International Forestry Research (CIFOR)

S1.25. Marine Marchetti, Improving cocoa bean quality in the supply chain by mitigating free fatty acid accumulation in beans through improved farm practices, ofi, Outspan Ivoire SA

S1.26. Dr. Laura Armengot, Locally selected cacao cultivars perform better than international cultivars in both agroforests and monocultures, FiBL


S1.28. Urcil Papito Kenfack Essougong, Using decision supports tools to foster good agricultural practices among cocoa farmers, what is needed for success? A case study from Cameroon, Plant Production Systems Group, Wageningen University & Research

S1.29. Dr. Xavier Argout, Pangenome analysis of Theobroma cacao reveals new genes and provides new insights into the diversity of the species, CIRAD, UMR AGAP

S1.30. Dr. Olivier Deheuvels, Designing cocoa-based agroforestry systems based on farmers’ perception of cultivated biodiversity, CIRAD-UMR ABSys

S1.31. Dr. Boguinard Sahin Honorine Brigitte Guiraud, Isolates of Cocoa Swollen shoot virus from tolerant/resistant cocoa trees (Theobroma cacao L.) collected in cocoa orchards in Côte d’Ivoire show high genetic diversity, Centre National de Recherche Agronomique (CNRA), Programme cacao, Opération Amélioration génétique

S1.32. Dr. Ruth Vanderschueren, Cadmium uptake and translocation in Theobroma cacao L.: A 108Cd stable isotope pulse chase experiment, KU Leuven

S1.33. Dr. Jean-Philippe Marelli, Development of an in-field detection kit for Cocoa Swollen Shoot Disease in Côte d’Ivoire and Ghana, Mars Wrigley

S1.34. Diannefair Duarte Hernández, Pollination, a matter beyond the visible, Federación Nacional de Cacaoteros

S1.35. Dr. Franziska Ollendorf, Different households – different challenges? Understanding the impacts of cocoa producers’ household characteristics on their ability to apply sustainable production techniques, Leibniz Centre for Agricultural Landscape Research (ZALF)

S1.36. Samuel Alfred Brülisauer, Beyond Certification: A Typology of Instruments of Private and Community-Based Sustainability Governance in Agri-Food Value Chains, Centre for Development and Environment (CDE), University of Bern; Institute of Geography, University of Bern

S1.37. Nana Okyir Baidoo, Effects of Cocoa Policies in Ghana on the Achievement of the Sustainable Development Goals (SDGs) in The Cocoa Sector, University of Ghana

S1.38. Dr. Andrew James Daymond, Procedures for Safe Movement of Cocoa Germplasm, University of Reading

S1.39. Dr. Mariela E. Leandro-Muñoz, Determining the risk of cacao pod diseases and yield losses through survival analysis and microclimate, Centro Agronómico Tropical de Investigación y Enseñanza (CATIE)

S1.40. Dr. Kayode Olufemi Ayegboyin, Genotypic responses of cocoa (Theobroma cacao L.) under field establishment stress in Nigeria, Cocoa Research Institute of Nigeria

S1.41. Leidy Paola Delgadillo, A dual transcriptomic in the Phytophthora palmivora and Theobroma cacao interaction, Colombian Corporation Agriculture Research-AGROSAVIA
S1.42. Timothée Faurie, Development of the DEXiCacao multi-criteria decision support tool adapted to the Vietnamese cocoa production context, Marou Faiseurs de Chocolat

S1.43. Dr. Pierre Walet N’Guessan, Inventory of ant species associated with mealybugs, vectors of cocoa swollen shoot virus at the CNRA-Divo research station, Côte d’Ivoire, Centre National de Recherche Agronomique (CNRA)

S1.44. Thomas Wibaux, Is morphological distinction of cacao trees still relevant in seedling-based hybrid populations? Study of the links between morphological descriptors, growth and yield., CIRAD-UMR ABSys / CEA-CCBAD

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S.3.2. Julie Lestang, Rapid characterization of the chemical profiles of cocoa beans fermented with anti-fungal co-cultures, Laboratory of Food Biochemistry, Department of Health Sciences and Technology, ETH Zürich

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S.3.4. Prof. Alejandro Caro-Quintero, Metagenomics and expression analysis reveals that members of the Erwiniaeae and Enterobacteriaceae are active players in the initial steps of cocoa fermentation, Departamento de Biología, Facultad de Ciencias, Universidad Nacional de Colombia

S.3.5. Viviana Alexandra Carvajal, The global cocoa and chocolate value chain: key players and opportunities for developing countries, CIESTAAM

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S.3.35. Alexis José Zambrano, Sensory and chemical quality of Venezuelan cocoa (Theobroma cacao L.), Universidad de Los Andes

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S.3.42. Jennifer Jackeline Garcia, Kinetics of cadmium bioaccumulation in seeds of five cacao varieties, Universidad Nacional Agraria - La Molina

S.3.43. Abiodun Oluwasola Ajewole, Effect of inclusion of cocoa powder on proximate composition chemical, mineral and sensory qualities of Unripened cheese-“Warankashi”, Cocoa Research Institute of Nigeria (CRIN)
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