



Association for  
Temperate Agroforestry



# 18<sup>th</sup> North American Agroforestry Conference (NAAC)

## Sharing Research & Best Practices Between Temperate & Tropical Agroforestry



20–22 February 2024



Turrialba, Costa Rica

### DETAILED AGENDA OF THE CONFERENCE

**R1:** Room #1 (First floor of Wallace building); **R2:** Room #2 (Third floor of Wallace building).  
Parallel sessions have the same number (to be developed at the same time in different rooms).

### DAY 1 (Tuesday, 20 FEB)

Times	Presenter and country	Title and institution	Room
6:00-7:30 am	<b>Breakfast</b>		Cafeteria
7:00-8:00 am	<b>REGISTRATION OF PARTICIPANTS</b>		Hall. Wallace building
<b>OPENING OF THE CONFERENCE</b>			
8:00-8:30 am	Rolando Cerda. Bolivia; Claudia Sepúlveda. Colombia-Costa Rica	Opening: Director general of CATIE and President of AFTA board  Objectives/Methodology/Logistics: CATIE and AFTA  Master of ceremony: Katie Modic, CATIE	Room #1
8:30-9:00 am	Eduardo Somarriba. Nicaragua-Costa Rica; Hannah Hemmelgram. USA	<b>Keynote speakers:</b> Overview of tropical and temperate Agroforestry in the Americas. CATIE and AFTA. <b>Facilitator:</b> Luis Orozco Aguilar	Room #1
9:00-9:30 am	Muhammad Ibrahim. Guyana-Costa Rica	<b>Keynote speaker:</b> Silvopastoral systems as a tool for the sustainable intensification of livestock production. CATIE. <b>Facilitator:</b> Luis Orozco Aguilar	Room #1
9:30-10:00 am	<b>Coffee break and Networking    Official Photo of the Conference</b>		
<b>SESSION 1.R1.: AGROFORESTRY WITH PERENNIAL CROPS</b> <b>Facilitator: Marney Isaac</b>			
10:00-10:30 am	Fabio Da Matta. Brazil	<b>Keynote speaker:</b> Eco-physiological responses of perennial crops to climate change: the role of agroforestry systems. Brazilian Consortium for Coffee Research and Development.	Room #1
10:30-10:40 am	Oelbermann, M. Canada	Assessing the benefits of temperate agroforestry in enhancing carbon sequestration. University of Waterloo.	Room #1
10:40-10:50 am	Osei, A. K. Canada	Impact of freeze-thaw cycles on greenhouse gas emissions in marginally productive agricultural land under different perennials bioenergy crops. University of Waterloo.	Room #1
10:50-11:00 am	Haggar, J. UK	Does carbon sequestration in coffee agroforestry systems compensate for agronomic greenhouse gas emissions? University of Greenwich.	Room #1
11:00-11:15 am	Facilitator	Questions/answers	Room #1
11:15-11:25 am VIRTUAL	Edelstein, C. P. Brazil	Effect of functional diversity on ecosystem services in cocoa agroforestry systems. CATIE.	Room #1

11:25-11:35 am	Nichols, I. and Munsell, J. USA	Determining the impact of traditional cocoa farms on mammal communities in Central Africa. Virginia Tech.	Room #1
11:35-11:45 am	Vitalis, T. USA	Effect of Defoliation Management on Establishment and Performance of Volunteer Native Warm-season Grass Seedlings in Field Alleys. VSU.	Room #1
11:45-12:00 md	Facilitator	Questions/answers	Room #1
<b>SESSION 1.R2.: SILVOPASTORAL SYSTEMS</b> <b>Facilitator: Felipe Peguero</b>			
10:00-10:10 am	Sánchez, T. Cuba	Potencialidades de los sistemas silvopastoriles para la producción bovina en Cuba. Estación Experimental de Pastos y Forrajes Indio Hatuey, Universidad de Matanzas.	Room #2
10:10-10:20 am VIRTUAL	Greene, H. USA	Silvopasture offers climate change mitigation and profit potential for farmers in the eastern United States. Propagate & The Nature Conservancy.	Room #2
10:20-10:30 am	Karki, U. USA	Use of Small Ruminants to Reduce the Fuel Build-Up in Woodlands. Tuskegee University, Alabama.	Room #2
10:30-11:00 am	Facilitator	Questions/answers	Room #2
11:00-11:10 am	Esparza-Harris, K. USA	Adaptive Strategies of Pastoral and Agricultural Communities for Management of Livestock Grazing Systems in the Commons of Senegal. Center for Agroforestry-University of Missouri.	Room #2
11:10-11:20 am	Andrade, H. Colombia	Carbon footprint in livestock farms with conventional management and silvopastoral systems in Jalisco, Chiapas and Campeche (México). Facultad de Ingeniería Agronómica, Universidad del Tolima.	Room #2
11:20-11:45 am	Facilitator	Questions/answers	Room #2
12:00-1:30 pm	<b>Lunch and short ceremony of AFTA AWARDS</b>		Cafeteria
<b>SESSION 2.R2.: AGROFORESTRY WITH PERENNIAL CROPS</b> <b>Facilitator: Fabio Da Matta</b>			
1:30-2:00 pm	Marney E. Isaac. Canada	<b>Keynote speaker:</b> Shade tree trait diversity in agroforestry systems: Which traits matter? University of Toronto.	Room #2
2:00-2:10 pm	Saj, S. France	Seasonal pruning of associated trees affects cocoa production in agroforestry systems differently from the SysCom long-term. FiBL.	Room #2
2:10-2:20 pm	Orozco, L. Nicaragua	CacaoFIT: the Network of Cacao Field Trials in Latin America and its contribution to sustainable cacao farming in the region. CATIE.	Room #2
2:20-2:30 pm	Vijayakumar, S. Canada	Verifying soil organic carbon sequestration of C4 perennial biomass crops using <sup>13</sup> C natural abundance technique in southern Ontario. University of Guelph.	Room #2
2:30-2:45 pm	Facilitator	Questions/answers and discussions	Room #2
2:45-2:55 pm	Moore, S.D. USA	Environment Affects Performance and Fruit Yields of Diverse American Elderberry Genotypes. University of Missouri.	Room #2
2:55-3:05 pm	De Melho. Brazil; Hagggar, J. UK	Findings and technical guidelines from 23 years of research in a coffee agroforestry trial. CATIE and University of Greenwich.	Room #2
3:05-3:15 pm	Cerda, R. Bolivia	Cacao productivity in modern agroforestry systems: results from their establishment to their plenty production stage. CATIE	Room #2
3:15-3:30 pm	Facilitator	Questions/answers, and discussions and session remarks	Room #2

<b>Session 2.R1.: SILVOPASTORAL SYSTEMS</b> <b>Facilitator: Cristobal Villanueva</b>			
1:30-2:00 pm VIRTUAL	René Pinto R. México	<b>Keynote speaker:</b> Contribution of silvopastoral systems for biodiversity conservation and generation of ecosystem services. UNACH	Room #1
2:00-2:10 pm	Pulido, A. Colombia	Tree Cover Dynamics in Mexican Cattle Ranching Areas: A Multitemporal Analysis. CATIE	Room #1
2:10-2:20 pm	Ku Vera, J.C. México	Mitigation of enteric methane emissions in silvopastoral systems with ruminants. Laboratorio de Cambio Climático y Ganadería; FMVZ-UADY.	Room #1
2:20-2:30 pm VIRTUAL	Valencia Trejo, M. México	Investigación participativa: selección de arbóreas y arbustivas para el establecimiento de sistemas agroforestales y silvopastoriles. Colegio de Postgraduados.	Room #1
2:30-2:45 pm	Facilitator	Questions/answers, and discussions	Room #1
2:45-2:55 pm VIRTUAL	Lara Bueno, A. México	Efecto de la época del año en el perfil mineral en suero sanguíneo de bovinos en un sistema silvopastoril intensivo. Universidad Autónoma de Chapingo.	Room #1
2:55-3:05 pm	Tweardy, E. USA	Appalachian Sustainable Development, United States. Shenandoah Permaculture Institute.	Room #1
3:05-3:30 pm	Facilitator	Questions/answers, and discussions and session remarks	Room #1
3:30-4:00 pm	<b>Coffee break and POSTER EXHIBITION 30 minutes</b> <b>POSTERS TO BE DISPLAYED: Silvopastoral Systems and Perennial crops</b>		
<b>Session 3.R1.: AGROFORESTRY SOFTWARE AND APPS</b> <b>Facilitator: Luis Orozco Aguilar</b>			
4:00-4:10 pm	Wolz, K. USA	Geospatial Data Fusion to Enhance Agroforestry Adoption. The Savanna Institute.	Room #1
4:10-4:20 pm	Kopecky, M.J. USA	Soil health in agroforestry systems: A new tool for evaluating and monitoring soil health in temperate and tropical forest lands. USDA-Natural Resources Conservation Services.	Room #1
4:20-4:30 pm	Facilitator	Questions/answers, and discussions	Room #1
4:30-4:40 pm	Alarcon de Anton, M. Spain	Assessing the performance of tropical and temperate agroforestry designs using the FarmTree Tool: Examples from Latin America. FarmTree B.V.	Room #1
4:40-4:50 pm	Somarriba, E. Nicaragua-Costa Rica	ShadeMotion software: tree shade patterns in agroforestry systems. CATIE.	Room #1
4:50-5:00 pm	Facilitator	Questions/answers, and discussions	Room #1
<b>Session 3.R2.: EXPERIENCES/ETHICAL AGROFORESTRY</b> <b>Facilitator: Arlene Lopez Sampson</b>			
4:00-4:10 pm	Bishaw, Badege USA	The Science and Practices of Agroforestry from Tropical and Temperate Regions: Sharing four decades of experience in capacity building, research, and development. College of Forestry, Oregon State University.	Room #2
4:10-4:20 pm	Hemmelgarn, Hannah L. USA	Collective Reflexivity as an Ethical Foundation for Agroforestry Research. University of Missouri Center for Agroforestry.	Room #2
4:20-4:40 pm	Facilitator	Questions/answers, and discussions	Room #2
4:40-4:50 pm	Keeley, K.O. USA	The Savanna Institute Research Program: Advancing Agroforestry in the US Midwest. The Savanna Institute.	Room #2
4:50-5:00 pm	Facilitator	Questions/answers, and discussions	Room #2
<b>THINK TANK (PANEL) 1: EDUCATION, CAPACITY BUILDING / NETWORKING AND COMMUNICATION TO ENHANCE AGROFORESTRY</b> <b>Facilitator: Mariela Leandro</b>			
5:00-6:00 pm	Facilitator	This session will include: <ul style="list-style-type: none"> <li>• Two short presentations to introduce the topic (20 minutes): Jairo Mora-Delgado (VIRTUAL) and Hanna Hemmelgarn.</li> <li>• Two to three expert panelists will answer prepared questions on the topic (20 minutes)</li> <li>• Interactions with the public through questions/answers, opinions, comments, and suggestions to contribute to the topic (20 minutes)</li> </ul>	Room #1
<b>CLOSURE OF DAY 1</b>			
<b>TIME FOR MEETINGS / NETWORKING</b>			
7:00-9:00 pm	Dinner		Cafetería

## DAY 2 (Wednesday, 21 FEB)

Times	Presenter and institution	Title	Room
6:00-7:45 am	<b>Breakfast</b>		Cafetería
7:50-8:00 am	Rolando Cerda B. Claudia Sepúlveda	Short opening act of DAY 2 Master of ceremony: Katie Modic, CATIE	Room #1
<b>Session 4.R1.: AGROFORESTRY WITH ANNUAL CROPS</b> Facilitator: Rolando H. Cerda			
8:00-8:30 am	Steven Newman. UK	<b>Keynote speaker:</b> Agroforestry with annual crops: successes, challenges and suggestions for the future. BioDiversity International Ltd.	Room #1
8:30-8:40 am	Mentreddy, S.R. USA	Alley Cropping: A Climate-smart Agricultural Practice for Mitigating Climate Change Effects and Ensuring Food Security. Alabama A&M University.	Room #1
8:40-8:50 am	Greeshma, G. USA	Harnessing alley cropping for climate-resilient organic vegetable production in the Southeastern U.S. Department of Plant Sciences, University of Tennessee.	Room #1
8:50-9:00 am	Valle, G. Honduras	Producción de leña y hoja de árboles multipropósito bajo esquema de cultivo en callejones en Honduras. UNAH-CURLA, Honduras.	Room #1
9:00-9:15 am	Facilitator	Questions/answers, and discussions	Room #1
9:15-9:25 am	Starr, L. USA	Achieving soil health goals with agroforestry by supporting Indigenous Knowledge and Practices: Opportunities and challenges for agricultural cost-share programs. USDA-Natural Resources Conservation Service.	Room #1
9:25-9:35 am	Karki, L. USA	Incentivizing Small and Minority Farmers to Adopt Climate-Smart Agriculture and Forestry Practices. University of Maryland Eastern Shore.	Room #1
9:35-9:45 am	Shea, M.; Wolz, K. USA	Assessing the potential for agroforestry in the US Midwest. The Savanna Institute.	Room #1
9:45-10:00 am	Facilitator	Questions/answers, and discussions and session remarks	Room #1
<b>Session 4.R2.: LINEAR PLANTING/FOREST FARMING</b> Facilitator: Hannah Hemmelgram			
8:00-8:30 am	Gary Bentrup. USA	<b>Keynote speaker:</b> Non-linear thinking for linear agroforestry practices, US-Forest Service, National Agroforestry Center, USA	Room #2
8:30-8:40 am	Garcia, E. or Somarriba, E. Honduras	Valoración ambiental y económica de las cercas vivas en un paisaje agropecuario típico de Honduras. CATIE	Room #2
8:40-8:50 am	Flaman, S.; Akhter, F. Canada	Using unmanned aerial vehicles and light detection and ranging techniques to estimate shelterbelt biomass. Agriculture and Agri-Food, University of Regina.	Room #2
8:50-9:00 am	Bloomquist, M.B. USA.	Developing Forest Farming in Appalachia. North Carolina State University	Room #2
9:00-9:15 am		Questions/answers, and discussions	
9:15-9:25 am	Sheban, K. USA	Effect of management regime and propagule type on the success of forest farming systems in the Eastern United States. Yale University-School of the Environment.	Room #2
9:25-9:35 am	Colburn, L. USA	Beyond the Barn: Dairy Farmer Perspectives on Challenges and Opportunities of On-Farm Woodlot Management. Stanford University, Emmett Interdisciplinary Program in Environment	Room #2
9:35-10:00 am		Questions/answers, and discussions and session remarks	
10:00-10:30 am	<b>Coffee break and POSTER EXHIBITION (30 minutes)</b> <b>POSTERS TO BE DISPLAYED: Annual crops/Linear Planting and Agroforestry Approaches</b>		

<b>Session 5.R1.: MODELING INTERACTIONS IN AGROFORESTRY</b>			
<b>Facilitator: Luis Orozco Aguilar</b>			
10:30-10:40 am	Aryal, P. USA	Modeling forest farming site suitability for <i>Allium tricoccum</i> in Appalachia. Virginia Tech, United States	Room #1
10:40-10:50 am	Cerretelli, S. UK	A scenario modeling approach to assess management impacts on soil erosion in coffee systems in Central America. Natural Resources Institute, University of Greenwich	Room #1
10:50-11:00 am	Facilitator	Questions/answers, and discussions	Room #1
11:00-11:10 am VIRTUAL	Owens, P. USA	Functional soil maps inform tree species-specific efficiency in agroforestry systems. USDA ARs Dale Bumpers Small Farms Research Center	Room #1
11:10-11:20 am	Rogers, E. USA	The power of trees to clean environmental pollution: Innovations in phytotechnologies from a regional network of phytoremediation buffer systems in the Great Lakes Basin, USA. University of Missouri, School of Natural Resources, Center	Room #1
11:20-11:30 am	Facilitator	Questions/answers, and discussions	Room #1
<b>Session 5.R2.: FRAMEWORKS AND ARRANGEMENTS IN AGROFORESTRY</b>			
<b>Facilitator: Luc Villain PhD</b>			
10:30-10:40 am	Favor, K, A. USA	Advancing Practical Knowledge of Agroforestry through Agroforestry Outreach Products. USDA National Agroforestry Center	Room #2
10:40-10:50 am	Glicksman, M. USA	Catalyzing Agroforestry in the Farm Bill: Recommendations for Resilient Agriculture	Room #2
10:50-11:00 am	Facilitator	Questions/answers, and discussions	Room #2
11:00-11:10 am	Ileana Avalos, Costa Rica	Construction of Institutional Arrangements in Agricultural Governance Schemes Arising from Climate Commitments: The Case of Coffee and Livestock Production Chains in Costa Rica. CATIE	Room #2
11:10-11:20 am	Colburn, L. USA	A social-ecological framework for agroecological restoration. Stanford University.	Room #2
11:20-11:30 am	Facilitator	Questions/answers, and discussions	Room #2
<b>THINK TANK (PANEL) 2: ENABLING ENVIRONMENTS (POLICIES, GOVERNANCE, INSTITUTIONAL, FINANCIAL) TO BETTER PROMOTE AGROFORESTRY</b>			
<b>Facilitator: Claudia Sepúlveda</b>			
11:30-12:15 md	Facilitator	This session will include: <ul style="list-style-type: none"> <li>• One short presentation to introduce the topic (10 minutes), Florencia Montagnini.</li> <li>• Two to three expert panelists will answer prepared questions on the topic (15 minutes)</li> <li>• Interactions with the public through questions/answers, opinions, comments, and suggestions to contribute to the topic (15 minutes)</li> </ul>	Room #1
12:15-1:30 pm	<b>Lunch</b>		Cafeteria
<b>Session 6a.R1: AGROFORESTRY STRATEGIC APPROACHES</b>			
<b>Facilitator: Augustine Osei</b>			
1:30-2:00 pm	Luis Gándara, Argentina	<b>Keynote speaker:</b> Armonizando árbol, pasto, agricultura y ganado: “Innovaciones Silvopastoriles y Agroforestales del Subtrópico Argentino”. INTA, Argentina.	Room #1
2:00-2:10 pm	Gordon, AM. Canada	The 1st Conference on Agroforestry in North America: Where it has brought us to Today and Where we Need to Go. School of Environmental Sciences, University of Guelph.	Room #1
2:10-2:20 pm	Marsh, A. USA	Strategic Directions: Advancing USDA Programs to Support Agroforestry. USDA National Agroforestry Center.	Room #1
2:20-2:30 pm	López Sampson, A. Nicaragua	Local arrangements in rural landscapes in the Nicaragua-Honduras sentinel landscape: the cases of a local farmer organization and a multi-actor platform. CATIE.	Room #1
2:30-2:45 pm	Facilitator	Questions/answers, and discussions	Room #1
2:45-2:55 pm	Viguera, B. Spain	AFS potential to improve Payment for Ecosystem Services effectiveness. CATIE.	Room #1
2:55-3:05 pm	Montagnini, F. USA	Promoting Agroforestry Systems as Biodiversity Islands in Productive Landscapes: Biodiversity credits and other incentives. Yale University, School of the Environment, The Forest School.	Room #1
3:05-3:15 pm	Facilitator	Questions/answers, and discussions	Room #1
3:15-3:45 pm	<b>Coffee break and GENERAL POSTER EXHIBITION. NETWORKING (30 minutes).</b>		

Session 6b.R1: AGROFORESTRY STRATEGIC APPROACHES			
Facilitator: Eduardo Somarriba			
3:45-4:15 pm	Fergus Sinclair, UK	<b>Keynote speaker:</b> Flexing your opinions: how farmers choose what trees to plant and where, promotes landscape diversity, productivity and resilience. CIFOR-ICRAF-Agroecology TPP.	Room #1
4:15-4:25 pm	Smith, M.M. USA	Results of the 2022 U.S. National Agroforestry Producer Survey. USDA-National Agroforestry Center.	Room #1
4:25-4:35 pm	Osentowski, J. USA	Agroforestry Education for Year-Round Food and Medicine Production, Carbon Sequestration, Soil-Building, and Climate Change Mitigation. The Central Rocky Mountain Permaculture Institute Basalt.	Room #1
4:35-4:45 pm	Healy, G.K. USA	The Agroforestry Coalition: a new cross-sector network in the USA. Savanna Institute.	Room #1
4:45-5:00 pm	Facilitator	Questions/answers, and discussions	Room #1
5:00-5:10 pm	Adams, K. USA	Rooted in Relationship: Building Strong, Multi-Party Partnerships Through Agroforestry Demonstration Farms. Savanna Institute.	Room #1
5:10-5:20 pm	Warren, S. USA	Agroforestry Trainings for Natural Resource Professionals. Appalachian Sustainable Development	Room #1
5:20-5:30 pm		Questions/answers, and discussions	
5:30-6:30 pm	Luc Villain, France; Arlene Lopez, Nicaragua	<p style="text-align: center;"><b>Side event: AGROFORESTA platform (open to the public)</b></p> <ul style="list-style-type: none"> <li>The coordinators of AGROFORESTA will animate the session together with a degustation of specialty coffees.</li> <li>This scientific platform works mainly with perennial crops in the tropical regions of Latin America. It has important partners such as: AGROSAVIA, CATIE, CIAT-Bloversity, CIFOR-ICRAF, CIRAD, ECOSUR, Fundación NicaFrance, INIAP, PROMECAFE.</li> <li>Its animators will prepare a short session to share the objectives, themes of research, achievements, and prospects of future actions in the region of the platform, in order to encourage assistants to be part of joint research.</li> </ul>	Room #1
CLOSURE OF DAYS 1 AND 2			
8:00 pm		<b>SPECIAL DINNER</b>	

### DAY 3 (Thursday, 22 FEB)

FIELD TRIP, 8:00 am – 3:00 pm		
<p><b>Station #1: Cocoa fields:</b></p> <p>Germplasm in-vivo collections; young agroforestry essays; ecosystem services; degustation of chocolates.</p>	<p><b>Station #2: Coffee fields:</b></p> <p>Long-term agroforestry essay (23 years): 20 systems; most important results on yields, soil fertility, pest regulation, carbon sequestration, innovations; coffee degustation.</p>	<p><b>Station #3: Silvopastoral systems and dairy farm:</b></p> <p>Innovative technologies for production and low emissions; management of trees in pastures; forage management; manure management</p>
1:30-3:00 pm: Tasting of tropical fruit juices and lunch at the CATIE botanical garden.		
CLOSING EVENT: Representative of AFTA board and Future Director General of CATIE		

### Thank You 2024 Partnership Meeting Sponsors

