



The Adelante Initiative's founding partners are:

Bonsucro, La Isla Network, Nicaragua Sugar Estates Limited and The Nicaraguan Sugar Producers Association

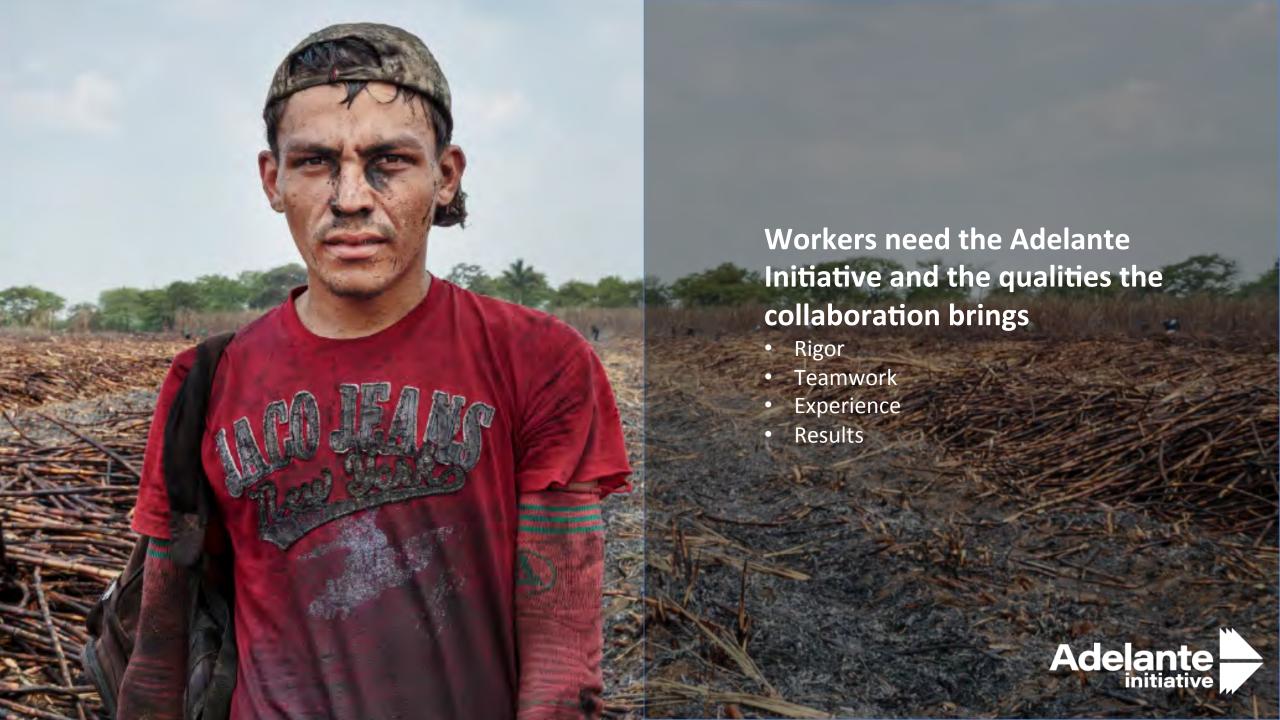








Comité Nacional de Productores de Azúcar Nicaragua





"The Adelante Initiative provides a platform to evaluate work practices and improve them with the best possible data. We will provide those learnings in a pre-competitive space via Bonsucro and other means so that all stakeholders may benefit regionally and globally. Our hope is we can support, and be supported by, all end users looking to ensure their sugarcane is sourced responsibly in line with their 2020 procurement goals and help to continuously improve the Bonsucro Standard."

Jason Glaser, CEO of La Isla Network

Diane Stevenson, Chair, Bonsucro Members' Council

Erin Logan, Chair, Change Accelerator Group



Strengthening the Bonsucro Standard

Learnings will help inform the Bonsucro certification pertaining to labor and be used to inform policy for worker protections on a country and international level.

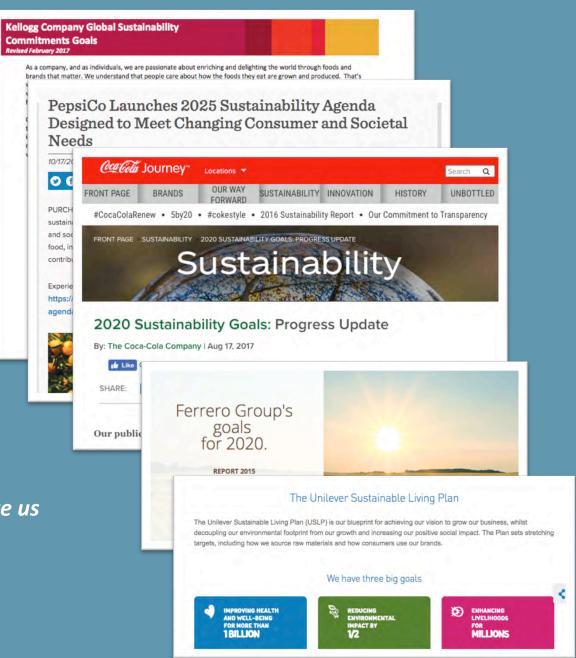




Our hope is we can support, and be supported by End Users looking to ensure their sugarcane is sourced responsibly in line with their 2020/25 procurement goals. We aim to continuously improve sourcing and certification standards as well as production standards.

- Kellogg Company Global Sustainability
 Commitments Goals
- PepsiCo Launches 2025 Sustainability Agenda
 Designed to Meet Changing Consumer and
 Societal Needs
- Our publicly reported 2020 Sustainability Goals drive us to continually improve. By: The Coca-Cola Company

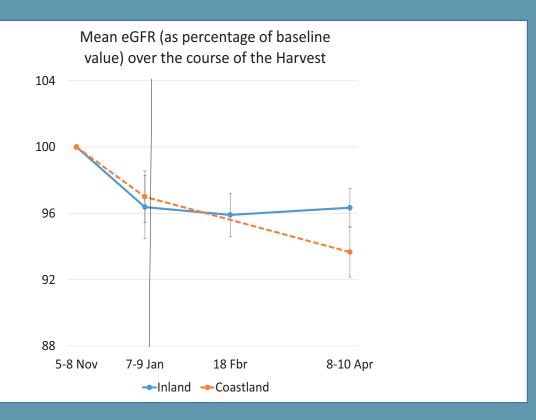








LIN is focused on Health Outcomes: Experts in Assessing and Addressing Health Risks



60% 50% 30% 20% Exhaustion "Kever" Stonach ache Jean racing Disorientation little trine Hausea Cramps Dark urine Dittiness Diahrea ■ Pre intervention Post intervention

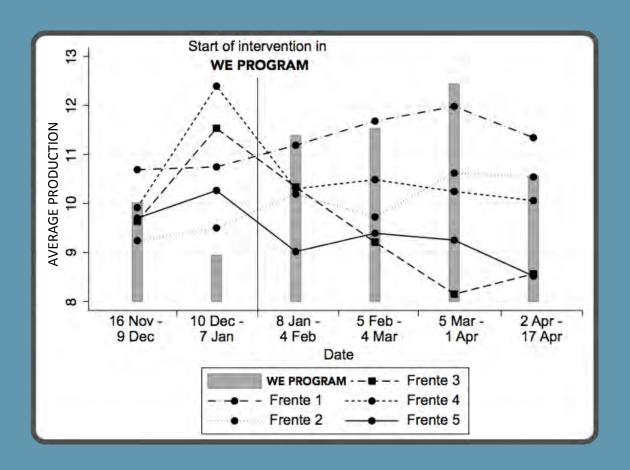
Decline in kidney function stops after intervention

Decrease of heat symptoms after intervention



Efficiency: MORE NOT LESS

With the Intervention the WE Program groups outperformed the majority of non-intervention groups while protecting worker health. There was an over 40% increase in productivity from the year before.





WE and LIN Research Team: International, Interdisciplinary, High Profile

Occup / environ epidemiology	Occup / environ medicine	Clinical chemistry / pharmacy	Heat physiology	Public Health & Occupational Health	Occupational health, qualitative research	Harvest and Efficiency Coordination
David Wegman, U Massachu-setts Lowell, USA Catharina Wesseling, Karolinska Inst, Sweden	Kristina Jakobsson, U Gothemburg, Sweden Theo Bodin Christer Hogstedt Karolinska Institutet, Sweden	Ulf Ekström Jenny Appfelqvist Magnus Abrahamsson U Lund, Sweden	Rebekah Lucas, U Birmingham, UK Randall Gutiérrez UNA, Costa Rica Camilla	Ilana Weiss LIN, USA Jason Glaser , LIN, USA & LSHTM, UK	Marianela Rojas UNA, Costa Rica Aurora Aragón UNAN-León, Nicaragua Sandra Peraza UES, El Salvador	Robert Quirk

Special expertise in heat, metals, pesticides, ergonomics, agriculture, communication

Collaborations with / access to **nephrology research groups** in Universities of Colorado , Stanford, Karolinska, Gothemburg; NIOSH (exposure assessment), USARIEM (heat exposure), SALTRA (various), LSHTM (epidemiology , nephrology)









UNIVERSITY^{OF} BIRMINGHAM



US ARIEM







PHASE 1

Adelante Project at Ingenio San Antonio for 2017-2018

- Preliminary assessment of:
 - Cross-harvest changes in biomarkers for cane cutters, seed cutters, irrigation workers and others.
 - ISA intervention program for cane and seed cutters.
 - Need for intervention extension to other worker categories
- Produce recommendations and training materials for:
 - Intervention improvements and/or expansion
 - Productivity enhancements that protect health







PHASE 2

What we aim to do in 2018-2020

- Create effective interventions for other at-risk workers in cane.
- Design effective interventions for other industries
- Ensure scalability while understanding logistical challenges
- Improve the assessment of exposures
- Work with development banks to improve loan assessment
- Ensure learnings are incorporated into certifications and other standards
- Provide insights into the organizational management structures and systems that facilitate change on the ground

PHASE 3

From 2020 we will advocate for the application of protections in other at-risk industries and continue the development of occupational protections as we acquire data and improve programs.





Industries Impacted

Sugarcane



Rice



Coconut



Nuts



Mining & construction



Latin America: The most impacted group are sugarcane workers. Mining and construction workers are also affected.

India: Sugar, rice, coconut, and cashew farmers are most affected.

Sri Lanka: Rice and sugarcane workers show the highest prevalence.

Southeast Asia: Industry and clinicians report sugar workers affected with what appears to be a similar disease.



Joining Adelante Initiative: Three Levels

- i. Adelante Co-signatories will be those industry and program management organizations that confirm common Goal and Mission alignment including commitment to give full and open access to all relevant data and information (Predominantly Researchers and Producers)
- ii. Adelante Partners will be those that have no direct programmatic involvement but contribute tangible support to achieving the Goal and Mission statements, including financing and in-kind support.
- iii. Adelante Registered Stakeholders will be those that formally register an interest in maintaining close involvement with the Initiative, but either have no direct contribution to make or are not yet ready to confirm full and open access to data sharing.



