

3Degrees launches Low Carbon Fertilizer Alliance for decarbonizing agricultural supply chains

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3Degrees, a leading global climate solutions provider and certified B Corporation, announced the launch of the Low Carbon Fertilizer Alliance, a collaborative initiative designed to help reduce emissions in agricultural supply chains.

Managed by 3Degrees, the Alliance leverages decades of expertise in greenhouse gas strategy and agricultural emissions reductions by bringing together organizations in the food, beverage, and apparel industries. The Alliance is supported by founding member Mars, Inc., alongside three additional Fortune 200 food companies, with CF Industries—the largest producer of nitrogen fertilizers in North America—joining as the founding manufacturing member.

Fertilizer production emits 2.6 gigatonnes of CO₂e annually—more than the aviation and shipping industries combined. While existing technologies can significantly reduce emissions from fertilizer manufacturing, companies often face barriers to accessing these lower-carbon options.

The Alliance provides a scalable approach to decarbonizing fertilizer manufacturing by funding emissions reduction initiatives within the agriculture value chain. With funding to be secured through the Alliance, CF Industries has committed to complete a new nitric acid plant emissions abatement project at its Verdigris, Oklahoma, manufacturing facility, which is expected to reduce emissions from the facility by 600,000 metric tons CO₂e/year beginning in 2025. Nitric acid is a raw material of urea ammonium nitrate solution (UAN), the most commonly used fertilizer in the United States.

While fertilizer manufacturing emissions represent over 20% of the emissions footprint of many agricultural commodities, the challenge is that these emissions are far upstream, making them difficult for any single company to finance and claim.

This is why collective action is essential," said John Bourne, Senior Director of Agriculture at 3Degrees.

With growing pressure to credibly reduce agriculture supply chain emissions, the Alliance's technical working group developed the Reporting and Claims Guidance V1.0, offering companies a framework to integrate the impact of Alliance supported interventions into their sustainability strategies and reporting.

Autumn Fox, Global Sustainability Director at Mars, said "By working together, we ensure that our accounting for upstream emission reductions is credible and aligned with our peers, while moving the needle on decarbonizing the inputs that farmers rely on."

Membership in the Low Carbon Fertilizer Alliance is open to companies that manufacture, trade, or sell products made with agricultural goods produced in North America, including those in the food and beverage and apparel industries.