

Strategic Roadmaps for SBTi Forest, Land, & Agriculture Targets:

Prioritizing Action for Impact

Overview

Companies cannot afford to waste a moment in adopting solutions to make food production sustainable for years to come – but figuring out where to start is daunting. In this report, Environmental Defense Fund, along with experts at Deloitte, provide a clear approach to cut through the noise and drive solutions.

The report includes example pathways for six key commodities aligned with the Science Based Targets initiative’s (SBTi) Forest, Land, and Agriculture (FLAG) guidance for food companies to more strategically work toward these ambitious climate targets. Leveraging a new action-oriented framework, sustainability teams can now quickly replicate proven strategies for the six commodities.

Our Framework

To meet the decarbonization imperative, companies should prioritize three types of action:

1. **Act** to implement scalable solutions
2. **Advocate** to reduce barriers to adoption of solutions
3. **Advance** promising solutions from R&D to commercialization

Our useful guide shares details on how to follow these three steps across the six example commodities—wheat, corn, soy, beef, poultry, and dairy. Moreover, by breaking out prominent agricultural greenhouse gases (GHGs)—methane, nitrous oxide, and carbon dioxide—our guide helps sustainability teams deliver a new approach drive emissions reductions efficiently and in highest service to their climate strategy.

Our Recommendations

Cattle: Prioritize Methane.

For beef and dairy commodities, methane is the leading GHG in both the regions examined in this report, North America and Europe, but also globally. Piloting enteric methane-reducing solutions and supporting innovation for solutions suitable for beef grazing systems will be necessary for managing methane. Adopting manure management solutions appropriate to farm scale will also be key.

	ACT	ADVOCATE	ADVANCE
BEEF Primary GHG: Methane Primary Emissions Driver: Enteric Fermentation, with 84-95% of CH ₄ emissions	Pasture Management Promote site assessments and implement practices	Feed Additives Advocate for efficient approval of safe products and government support of solutions implementation	Additives & Other Products Support additional research for high-impact solutions Herd Management Support and develop selective breeding programs for emissions reductions
DAIRY Primary GHG: Methane Primary Emissions Driver: Enteric Fermentation, with 73-88% of CH ₄ emissions	Manure Management Determine best-fit solutions to minimize leakage Feed Additives Use approved products for enteric methane reduction		

Poultry: Prioritize Carbon Dioxide & Nitrous Oxide.

Emissions of carbon dioxide and nitrous oxide take precedence for poultry. Exploring feed alternatives, improving litter management, reducing energy use and utilizing renewable energy sources are all key opportunities for poultry.

	ACT	ADVOCATE	ADVANCE
CHICKEN Primary GHG: Carbon Dioxide Primary Emissions Driver: Feed, with 74-76% of CO ₂ emissions	Poultry House Mgmt. Develop education programs on best practices	Renewable Energy Support renewable energy access across regions	Feed Management Support research and piloting of approved feed alternatives

Corn, Soy, and Wheat: Prioritize Nitrous Oxide.

Across the crop commodities, nitrous oxide emerges as the most significant GHG. Climate-smart agriculture practices, protective measures for soil health, and reduced fuel and energy use are all recommended solutions across the crop commodities.

	ACT	ADVOCATE	ADVANCE
CORN Primary GHG: Nitrous Oxide Primary Emissions Driver: Field Emissions, with 100% of N ₂ O emissions	Nutrient Management Promote site-specific plans and use of precision technology Intercropping Practice intercropping to reduce need for chemical inputs	Nutrient Management Promote education on supplier-wide adoption of nitrogen management Develop internet infrastructure needed for precision technology Intercropping Promote education on the integration of non-crop plants (e.g. cover crops) for soil health	Genetics Support research and development on improved genetics Nitrogen Fixing Support research on compatible microbes and conduct tests
WHEAT Primary GHG: Nitrous Oxide Primary Emissions Driver: Field Emissions, with 87-100% of N ₂ O emissions			
SOY Primary GHG: Nitrous Oxide Primary Emissions Driver: Field Emissions, with 100% of N ₂ O emissions			