



## HowGood Methodology

### CLIMATE FRIENDLY ATTRIBUTE

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#### Who is HowGood?

HowGood is an independent research company and SaaS sustainability intelligence platform with the world's largest database on food product sustainability. For 17 years, HowGood has focused exclusively on agricultural production research and mapping global food systems. With over 90,000 agricultural emissions factors, HowGood's database enables the food industry to accurately measure, reduce, and communicate the impact of their products. HowGood's SaaS platform delivers automated and auditable sustainability data to some of the world's largest food companies to power their product carbon footprinting, corporate carbon accounting, impact reduction initiatives, and strategic sourcing decisions. Visit [howgood.com](https://howgood.com) for more information.

#### What is HowGood's research methodology?

HowGood has more than 17 years of research on global food supply chains. The team consolidates and analyzes findings from over 600 accredited data sources and certifications. These include a range of resources such as international frameworks, NGO guidance and standards reports, peer reviewed life cycle assessment studies, journal articles, academic conference proceedings and texts, aggregated commercial databases, targeted industry studies, NGO research, government publications, and news reports from reputable outlets. HowGood employs the most industry-recognized methodologies and incorporates the latest scientific research. Metrics and impact assessments are updated on an ongoing, iterative basis, making HowGood's platform the leading-edge tool for product sustainability. In turn, HowGood is able to provide impact assessments that are accurate, comprehensive, and the most up-to-date. Through HowGood's sustainability intelligence platform, [Latis](#), we are able to scale this approach across products, brands, and the entire food industry.

#### What does the Climate Friendly attribute measure?

HowGood's Climate Friendly attribute recognizes food products with low greenhouse gas emissions. HowGood assesses carbon footprint for products across the food system. Products that receive the Climate Friendly attribute have GHG emissions that are lower than 70% of products assessed by HowGood. The threshold for a product to achieve the attribute is 1.6 kilograms of carbon dioxide equivalent, per kilogram of product (kg CO<sub>2</sub>e / kg). This threshold will be updated on an annual basis in line with the latest research on GHG emissions in the food system.

The assessment for the Climate Friendly attribute takes into account GHG emissions from Cradle-to-Gate. This includes all inputs required for agricultural production, land use change, farm to processing transportation, ingredient processing, processing to manufacturing transportation, and manufacturing. Packaging is excluded at this time. For more information on these stages of the Carbon Life Cycle, read our [Product Carbon Footprint methodology](#).

### How long does a product qualify for the Climate Friendly attribute?

Products that qualify for Climate Friendly receive access to the attribute for public-facing communications for one year. At the end of the annual contract, products must be reassessed based on the current industry benchmark to re-qualify.

### What does the Climate Friendly attribute mean for consumers?

The Climate Friendly attribute provides consumers with a clear indicator of how sustainable a product is with respect to carbon emissions. It's easy-to-digest and guides consumers toward more sustainable purchases. The Climate Friendly attribute empowers shoppers to make decisions that are in line with their values and preferences. By purchasing Climate Friendly products, consumers can take a step toward reducing their carbon footprint.

### What is HowGood's research methodology for calculating carbon emissions?

HowGood's methodology for calculating GHG emissions is developed in accordance with the GHG Protocol.

1. **Data Collection:** HowGood draws on a diverse collection of data sources, including peer reviewed journal articles to calculate the CO<sub>2</sub>e values for ingredients. For each data source, HowGood performs a data certainty assessment based on the age and comprehensiveness of the findings. This process is completed for every ingredient on which there is accurate and verifiable data. For GHG emissions, HowGood relies on the International Panel on Climate Change (IPCC) 2013 global warming potential estimates where available and crop-specific LCAs.
2. **Ingredient Mapping:** Once the data is collected and analyzed, HowGood conducts a proprietary process of mapping each ingredient to its source crop, animal or material. Using global import/export data and HowGood industry partnerships, HowGood then maps each source crop to its corresponding geographic location to account for the specific on-the-ground practices, impacts, and risks in each locale.
3. **Data Aggregation:** HowGood, to date, has mapped nearly every ingredient, chemical and material in the CPG industry, including where and how it is produced. This mapping is used to aggregate data across geographic regions or ingredient categories and develop industry-average impact profiles for CO<sub>2</sub>e across every ingredient.

Based on the ingredient mapping process, HowGood assigns a default location and corresponding industry-average profile for every ingredient in a product. If deeper levels of data granularity are available (from a specific supplier, industry partner, or publication), these specifics are applied.

### What data sources does HowGood use to assess GHG emissions?

For GHG emissions, HowGood relies on the International Panel on Climate Change (IPCC) 2013 global warming potential estimates where available and crop-specific LCAs. For crops and locations where no current data exists, HowGood uses relevant LCAs from proxy locations where farming methods are deemed as similar (ie. places that have the same fertilizer requirements, same size farm, etc).

Sustainability (Journal)	Roundtable On Sustainable Palm Oil	Carbon Trust Standard
International Journal of Life Cycle Assessment	Palm Oil Innovation Group	World Agroforestry - ICRAF
FAO Database of Greenhouse Gas Emissions from Agriculture	Carbon Neutral	Farm Carbon Toolkit
Journal of Industrial Ecology	Soil Carbon Initiative	OpenLCA
European Space Agency Climate Change Initiative	EcoCert	ResourceWatch
Agribalyse	Roundtable on Sustainable Biomaterials	Consultative Group for International Agricultural Research
The Sustainability Consortium	Rainforest Alliance	
Journal of Cleaner Production	Cradle to Cradle	Stewardship Index for Specialty Crops
Greenhouse Gas Protocol	Nature Climate Change	Carbon Disclosure Project
USDA LCA Commons Life Cycle Inventory (LCI) database	Carbon Neutral Certification	Evidensia
United States Department of Agriculture	Life Cycle Data Network	PalmGHG
Global Logistics Emissions Council	ReFED Insights Engine	AdaptWest Climate Resilience Data Explorer
ESU World Food Database	Global LCA Data Access Network	Information Processing in Agriculture
Savory Land to Market Ecological Outcome Verification	World Data Center for Geoinformatics And Sustainable Development	European Life Cycle Database
Regenerative Organic Certification	USDA Ag Data Commons LCA Collection	