Chocolate

Sustainability Snapshot

THESIS
BY THE SUSTAINABILITY CONSORTIUM

Product Description

Candy and confections with chocolate as a major ingredient but that may also include added milk, sweeteners, flavorings, and vegetable oils. Includes, but is not limited to, dark chocolate, milk chocolate, chocolate with nuts, chocolate chips, and cocoa. Does not include candy, ice cream, or chocolate alternatives.

Mission

The mission of The Sustainability Consortium (TSC) is to improve the sustainability of products when they are made, purchased, and used, with a focus on manufacturers and the retail buyers who decide what products to carry in stores. The information in this document is drawn from our detailed research on known and potential social and environmental impacts across product life cycles. TSC acknowledges that other issues exist, but we have included here those that are most relevant to the decision making of retail buying teams and manufacturers. The topics are listed alphabetically for ease of reading; the order does not represent prioritization or other criteria.

Animals

Animal Welfare

Final product manufacturers should source from suppliers with comprehensive management plans, including certi cation programs, that ensure animal welfare for farm animals. Plans or programs should include practices that avoid painful procedures, ensure access to adequate housing and proper nutrition, require proper handling, and promote good health in ways that are appropriate for dairy cattle.

Managing the Supply Chain

Land and Soil

Improper soil management can remove nutrients, release greenhouse gases, and cause soil loss, while clearing land for agriculture can lead to deforestation. Growers should use ef cient soil management practices, including reduced soil tilling when applicable and prevention of soil erosion. Manufacturers should use sourcing policies that monitor progress on zero deforestation commitments. Sourcing policies should also promote protection of high conservation value forest habitats, which have unique plants and animals. This reduces the risk of biodiversity loss, diminished ecosystem quality, and increased greenhouse gas emissions that can occur when forests are cleared for agriculture.

Palm Oil

Many chocolate products contain palm oil, palm kernel oil, or ingredients that have been chemically derived from these oils. Palm oil production is one of the leading causes of deforestation, which is a signi cant contributor to climate change. Palm oil cultivation also impacts climate, land, and water. Improper palm oil production and management may also lead to worker exploitation and threats to worker health and safety. Final product manufacturers should select suppliers that are working to improve sustainability and adopt standard guidelines from the Roundtable on Sustainable Palm Oil (RSPO) or other certi cations.

Supply Chain Transparency

Addressing many of the environmental and social challenges within an agriculture supply chain requires cooperation among companies at different stages of the

supply chain. Manufacturers should determine the locations of farms that produce their ingredient supply and engage in initiatives that improve transparency, communication, and data sharing. Suppliers can work together to address common issues, such as energy use, water availability and quality, chemical use, worker health and safety, and labor rights.

Water

Ingredient production can use a signi cant amount of water and contribute to freshwater depletion, which is problematic in water-stressed regions. Growers can measure and track water use, and use methods such as precision agriculture, which applies only the amount of water needed, or irrigation water management to improve water ef ciency.

Use of Resources

Climate and Energy

Ingredient processing an nal product manufacturing can consume signi cant amounts of electricity and energy, which result in greenhouse gas emissions; fertilizers can also emit these gases. Manufacturers and growers can reduce these impacts by measuring and tracking energy use, performing preventative maintenance on equipment, and replacing inef cient equipment. Additionally, growers can minimize impacts by implementing a nutrient management plan, using precision agriculture, which applies only the amount of fertilizer needed, or low-energy irrigation, and optimizing the size and ef ciency of farm vehicles.

Packaging

Packaging design should be optimized to ensure that packaging performs its essential functions of containment and protection while minimizing use of materials, energy resources, and environmental impacts across the life cycle of the packaged product. Under-packaging and over-packaging can both lead to increased impacts. These impacts may be mitigated by using more energy-ef cient manufacturing, creating packaging materials from renewable resources, designing packaging to be recyclable, and encouraging consumer recycling.

Workers and Communities

Forced or Child Labor

In some areas, there is a risk of forced or child labor, characterized by actions such as traf cking, withholding wages or documents, and restricting workers to the work site. Manufacturers should determine if and where forced or child labor occurs, and work with supply chain partners and experts to address these issues, to ensure all workers have fair working conditions.

Smallholder Farmers

Growers on small farms, called smallholder farmers, may have limited access to information, technology, and resources. Manufacturers should determine where their crops are grown, understand if they source from small farms, and work with organizations that help smallholder farmers overcome challenges and achieve greater and more sustainable results.

Workers

Workers, especially women and migrants, may face unfair pay, discrimination, and limited freedoms. They may also be exposed to dust, chemicals, or other industrial hazards. Manufacturers should procure materials from suppliers that transparently address worker health and safety and labor rights and perform audits when needed.