Garden flowers, ornamentals, and plants

Sustainability Snapshot

THESIS
BY THE SUSTAINABILITY CONSORTIUM

Product Description

Cultivated or wild-harvested whole plants. Includes, but is not limited to, bulbs, shrubs, tree, flowers, and dormant plants. Does not include cut flowers or artificial plants.

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.

Managing the Supply Chain

Biodiversity

Wild harvesting of flowers and plants can increase the risk of extinction of vulnerable plant species, while the distribution of cut flowers, ornamentals, and garden plants can spread invasive species that impact local flora and contribute to biodiversity loss. Horticulture operations can use sustainable wild-harvesting practices, commercially cultivate indigenous flora to prevent over-exploitation of wild species, and implement programs to monitor and control
the spread of invasive species.

Climate and Energy

Horticultural production requires significant amounts of energy. The burning of fossil fuels to produce this energy, as well as the production and use of fertilizers and the use of transportation vehicles, results in greenhouse gas emissions. Growers can reduce these impacts by implementing energy conservation practices for greenhouse facilities and farm vehicles, using organic wastes as a nutrient source, and using information technology to increase transportation efficiency.

Fertilizer and Nutrients

Improper management and use of fertilizers can lead to local water pollution and release greenhouse gases during production. Growers should use a nutrient management plan to improve the efficiency of fertilizer and manure use for production. Growers can use precision agriculture, which applies only the amount of fertilizer needed. Where appropriate, growers should apply nutrients through irrigation water to reduce fertilizer runoff.

Pesticides

Improper use of pesticides can impact workers and nearby ecosystems and communities. If growers use pesticides, they
should read the label and follow usage directions exactly.
Workers should be trained and provided with protective gear to prevent exposure

to themselves and the environment during handling or application. Consultation with experts can help determine the appropriate selections, forms, timing, and amounts of pesticides for pest problems.

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. Final product suppliers should determine the locations of farms or wild harvest locations that produce their 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

Horticultural production can use a significant amount of water and contribute to freshwater depletion, which is problematic in water-stressed regions. Growers can measure and track water use, use low-volume or precision irrigation systems, and develop water conservation plans to improve water use efficiency.

Use of Resources

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-efficient manufacturing, creating packaging materials from renewable resources, designing packaging to be recyclable, and recovering energy from non-recyclable packaging.

Workers and Communities

Community Rights

Local and indigenous people who have traditional rights to land that companies want to develop can be harmed by development that does not consider their rights. Horticulture operations should work with the local government and community representatives to ensure that traditional rights are respected prior to land development and throughout production operations.

Workers

Farm workers, especially women and migrants, may face unfair pay, discrimination, and limited freedoms. They may also be exposed to chemicals, dust, or other hazards. Final product suppliers can implement programs to ensure they are sourcing from growers who protect labor rights and ensure the health and safety of their workers.