



### Product Description

Shelf-stable food products composed primarily of the milk from domesticated cattle. Includes, but is not limited to, canned buttermilk, condensed milk, evaporated milk, and powdered dry milk. Does not include refrigerated dairy, non-dairy milk, or cheese.

### 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 certification 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

#### Antibiotics

Therapeutic use of antibiotics has been shown to have positive effects on animal health and welfare, but care should be taken to prevent antibiotic resistance. To ensure responsible use, dairy producers should follow label instructions exactly. Producers should also consult veterinarians to implement antibiotic monitoring programs, plans, and systems, to optimize animal welfare and health while minimizing antibiotic resistance in animals and humans, as well as impact on the environment.

#### Fertilizer and Nutrients

Fertilizers and manure release greenhouse gases. Dairy producers should optimize fertilizer application by using a nutrient management plan to improve the efficiency of fertilizer and manure use for feed production. Producers should also use precision agriculture, which applies only the amount of fertilizer needed.

#### Pollution

Manure releases greenhouse gases and other emissions that pollute air and water. Dairy producers can use technologies in dairy barns that clean the pollution out of the air and can implement manure management plans to reduce impacts from manure.

## Water

Feed production for livestock, livestock watering, livestock misters, cleaning of milking equipment, milk pre-cooling, and barn cleaning can use a significant amount of water and contribute to freshwater depletion, which is problematic in water-stressed regions. Dairy producers can measure and track water use; use methods such as precision agriculture, which applies only the amount of water needed; and implement irrigation water management to improve water efficiency.



## Use of Resources

### Climate and Energy

Dairy operations, processing, and final product manufacturing require a significant amount of energy and electricity, resulting in greenhouse gas emissions. Dairy cattle release greenhouse gases when they digest their feed and produce manure, and fertilizers and energy used for growing feed also emit greenhouse gases. Dairy producers, processors, and final product manufacturers can reduce these impacts by measuring and tracking energy use, performing preventative maintenance on equipment, and replacing inefficient equipment. Additionally, dairy producers can minimize impacts associated with feed production by implementing a nutrient management plan, using precision agriculture to apply fertilizers, and using low-energy irrigation systems. Dairy producers can also optimize feed yield, feeding of livestock, and the size and efficiency of farm vehicles.



## Workers and Communities

### Workers

Workers may be exposed to dust, chemicals, or other industrial hazards. To help ensure worker health and safety, dairy producers should have a documented health and safety management plan, as well as a chemical management plan where needed, and provide safety training and personal protective equipment to workers in their facilities. Dairy producers should also implement labor management and equality monitoring programs to ensure labor rights for workers.