

PLANET



WASTE

Waste is a cost of doing business, but also an opportunity for cost reduction. In the most general terms, raw materials are purchased (some of which are wasted), transformed into products (generating operational waste), sold as goods (creating waste during transport) and finally, used or disposed of after use (more waste). Recycling, reusing and reducing waste throughout the production and manufacturing process creates opportunities for improvement.

The quantity, type and quality of waste generated by an organization is linked to the processes involved in production (i.e., extraction, processing, procurement, design, production and distribution) and consumption. How materials flow into, through and out of the organization can illuminate what materials eventually become waste. Waste also includes the impacts linked to activities carried out upstream or downstream in the value chain.

After the identification of waste, it is equally important to assess actions to recycle, reuse or reduce it. From input material choices (e.g., using 'waste' materials from other industries) to end of life interventions for recovery, actions to prevent or reduce waste can offer financial and environmental benefits.

Importance to the Animal Food Industry:

- Compliance with regulatory requirements for waste management and environmental protection is an important element of waste management to avoid fines, legal penalties and reputational damage.
- By minimizing waste and seeking to utilize byproducts from other industries, the animal food industry contributes to the circular economy, reducing the need for new resources.
- Reducing waste can lead to significant cost savings in terms of raw materials, waste disposal and energy consumption. Efficient waste management can improve the bottom line.
- By assessing waste, the animal food industry can improve resource use efficiency and identify opportunities to reduce, reuse or recycle materials.
- Proper assessment and management of waste can help mitigate negative impacts, such as soil and water contamination, and protect natural ecosystems.
- Assessing waste can drive innovation by identifying areas for improvement in production processes. This can lead to the development of new technologies and practices that reduce waste and improve overall efficiency.
- Demonstrating a commitment to responsible waste management can enhance a company's reputation and align with corporate social responsibility initiatives.

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Example 1:

APC creates high-value ingredients including functional plasma proteins and red blood cells sourced from blood that are used to enrich animal foods and promote nutrient uptake in plants. The company offers products suited for ruminants, swine, poultry, companion animals, fish and plants.

Value:

Blood is often a waste product from agricultural processes. Over their 40-plus years in business, APC's focus on creating value through reclaimed resources has remained unwavering.

Action:

Blood and blood fractions are natural, sustainable protein sources that retain biologically active functional components that support animal and plant health. The company is committed to a zero-animal waste philosophy.

Benefit:

Eliminating waste minimizes the overall environmental impact of agriculture by utilizing these available resources to help animals and plants thrive.



Example 2:

Chr. Hansen, a Novonesis company, is a leading global BioSolutions company. Novonesis recently formed following the 2024 merger of Chr. Hansen and Novozymes. The company specializes in utilizing microbiology and biotechnology to create sustainable solutions across various sectors including health, food and beverage, and agriculture. Chr. Hansen focuses on enhancing production processes, improving health outcomes and promoting sustainability through its innovative use of enzymes, proteins and microorganisms.

Value:

Chr. Hansen values resource renewability and recycling. Renewing, recycling and reusing resources reduces the company's impact on the environment. The company has targets to reduce the amount of waste associated with packaging and production, specifically, it wants to reduce the percentage of waste sent to landfills by recycling as much as possible.

Action:

Chr. Hansen seeks to reduce packaging and production waste and

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increase recycling to reduce material volume sent to the landfill. A focus on paper, cardboard, plastic, metals, wood and other materials has resulted in an annual recycling rate of 35.9 %. In addition, the company has installed reverse osmosis systems to recycle water from its fermentation processes. Fermentation eluate (mostly water and a small fraction of solids) is sent to the Milwaukee Metropolitan Sewage District to be turned into fertilizer. Currently 3,332 metric tons per month of eluate are being converted to fertilizer. The company's efforts have reduced yogurt waste and the amount of wastewater produced compared with previous years.

Benefit:

By working to reduce the amounts of waste going to landfills, Chr. Hansen can provide products that are in the best interest of its customers and shareholders. It appeals to customers and suppliers that are looking to reduce environmental impacts.



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