

3.1. Our Practices to Reduce Food Waste

One of the important areas where food retailing can have an impact on sustainability is to prevent food loss and waste. **Sustainable Development Goals 12.3** focuses specifically on this issue. As a member of the Consumer Goods Forum (CGF), we have pledged to reduce our food waste rates. Accordingly, by 2025, **we have committed to halve the rate of food waste tonnage to our total food sales tonnage by 50% compared to 2016.** In order to reduce food loss and waste and to re-evaluate consumable foods, we accelerate our measurement, categorization, analysis and improvement efforts and implement various projects in line with **the Food Recycling Hierarchy**. We are aware that reducing food waste will reduce water and fertilizer use, prevent soil loss, and also reduce greenhouse gas emissions. We have started to move towards this goal with confident steps with these projects which we have stated below and which we plan to increase its capacity gradually.

We saved up to 10 MigrosJet stores' revenue worth of with discounts to products that are closing their expiration dates and ripened produce

Operational Improvements and Discounted Sales

In line with our goal of reducing losses at source, we focus on food waste from our operations. As a result of our investigations, we found that 80 percent of our food waste is from produce. In this direction, we carried out special activities for this rapidly deteriorating product group. In order to prevent losses due to over-stocking, in 2018, we launched the automated ordering system for fruits and vegetables. With the use of machine learning, the orders of produce started to be given automatically with the analysis conducted with the previous order, stock and sales. **In our 114 stores** where we first tried this system, **we managed to reduce our fruit and vegetable waste by 3.4 percentage points.** We submitted patenting applications for the project developed using only internal resources and expanded the system to all our stores. After ensuring the correct order and stocking with this system, we have moved on to the second stage to reduce the food

Impacts of Food Waste

Food waste means the disposal of foods that are safe and nutritious for human consumption and or their use for non-food applications. According to the United Nations Food and Agriculture Organization (FAO), one third of global food supply goes to waste every year. In other words, around 30 percent of the world's agricultural land is used to produce foods that are never consumed. Moreover, with these wasted foods, it is possible to completely feed all the people in the world who face hunger. However, wasted food products are estimated to account for 8 percent of global greenhouse gas emissions. In the absence of an immediate solution, the FAO finds it unlikely that the United Nations can achieve its goal of halving food waste by 2030.

waste that still occur. **In order to accelerate the sale of fresh food products such as meat, poultry and dairy products within expiry dates, we have started to use the 25-50% discounted sales application that we have been using for many years in the sale of ripe fruits and vegetables.** With the result of the implementation that we started as a pilot in our 8 stores in the last two months of 2018, we improved fruit and vegetable losses by 32 percent and reduced fruit and vegetable losses by 2.1 percentage points compared to 2017.

In 2018, we saved food amounting to 10 MigrosJet stores worth of revenues through discounted sales of fresh food products and ripened vegetables and fruits.



Our 'Respecting Food' Project

We deliver foods, that do not meet the sales standards visually but maintain their nutritive properties and are suitable for consumption, to those in need through a web-based donation platform. With this new generation application which we took online in 2017 with the cooperation of Fazla Gıda (Whole Surplus), the requirements of the people in need and the donatable foods are matched on the same platform. Thus, the donated food is delivered to the right address in the right amount and is utilized up to 100 percent. Due to the system that includes fruits and vegetables and legumes products, products can be delivered to food banks and social stores on a daily basis. In 2018, we donated 528 tons of food and supported 1,124,023 meals delivered to those in need during the year. We aim to extend our project to our stores throughout the country.

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In May 2018, we expanded our scope by including 3 manufacturers and suppliers in our food donation project. In this context, the products that will be returned to our manufacturers due to the expiry date approaching or damage to the packaging are separated and the ones involved in the project are subjected to control process. We identify products that can be donated and include them in the donation process after bagging and sealing.



Food Loss and Label Reading Research

In addition to the practices and projects we have developed to reduce food loss, we focus on understanding the current situation and raising awareness on the consumer by contributing to research and activities. Under the leadership of our company, with the contributions of leading companies in the retail and fast-moving consumer sector, **a research was conducted by the Food Safety Association in 2018 to determine consumer perceptions and behaviors leading to food loss.** With the contributions of Nielsen Research Company, we found out that 72 percent of consumers who participated in the survey sends non-expired food to trash because they could not differentiate between the expiry and best-before dates. Food and beverage products that are the most wasted in households are vegetables and fruits with 42 percent and milk and dairy products with 41 percent. 57 percent of customers consider "selling visually unappealing but safe to consume foods at a discount" the primary method for preventing food waste. Based on the outputs we derived from this research, **we are planning a training program in our stores in 2019** so that consumers can become more conscious while being more aware of food loss prevention solutions.



What is the difference between expiry date and best-before date?

The expiry date should be included in fresh food products and products should not be consumed after expiry date. Unless any problems are detected in taste, smell and appearance, consuming food of which best-before date is past does not pose a health risk.

Our "Fresh Leftovers to Our Four-Legged Friends" Project

Since 2014, we have been carrying out the "Fresh Leftovers to Our Four-Legged Friends" project for feeding forest, stray and rescue animals. In our stores, food products whose expiration date is approaching but still being consumable are donated through associations for the feeding of forest, stray and rescue animals. Within the scope of the project, **we donated 641 tons of food in 2018. 298 tons of food from our Mersin and Antalya fruit and vegetable warehouses were supplied for the feeding of livestock.**

We donated 641 tons of food to feed stray and forest animals, in 2018.

In November 2018, we started the secondary sales operation of legumes, pasta, baby food, snacks, instant soup, bakery products, which were past their sale qualities. The products are delivered from the distribution centers by the relevant company and delivered to the animal feed producers in accordance with certain prices. In 2018, we sold 29 tons of products.

In 2016, **we started placing specially designed food bowls in front of our stores** so that the stray animals around our stores could be fed in a clean and healthy environment. Cat and dog food in the food bowls located in front of the doors of 61 Migros and Macrocenter stores in 9 provinces are refreshed daily. We also provide affordable and practical solutions for our customers who want to feed stray animals. **With the "Dostluk Maması – Friendship Food",** products which we offer in packages of 100 gr, **the need of stray cats and dogs for meal can be met.**



Extending the Shelf-Life of Red Meat

Due to our innovative production line and expert butcher team, we have significantly reduced waste and loss rates at MIGET. We work to turn every point of these products into value, minimize loss and extend their shelf life. **We have extended the shelf life of meat products by nearly 30 percent with MAP packaging technique, optimum stocking and strong cold chain.** This year we started using the newest packaging technology. **Skin pack technology** covers food products like a leather with its flexible top film, **completely evacuating air during vacuuming and protecting it from environmental influences.** Thus, we can double their shelf lives. With the rapid development of this technology in the coming years, we will continue to update our investments. With our investments in this field and the packaging technologies we renew every year, we halved the loss in red meat.

We have increased the **shelf-life of our red meat products by 30% with MAP packaging and 200% with skin pack packaging.**



Our Energy Production Activities from Organic Waste

We use organic wastes from our stores that are not suitable for consumption for energy recovery and composting or **we send them to municipal waste disposal centers.** In 2018, we separated 5,281 tons of organic waste from our 641 stores, Gebze Distribution Center and Bursa vegetable and fruit warehouse at its source and sent it **to the biogas plant.** Biogas or compost production from these wastes resulted in **energy generation that could light a 100 watt lightbulb for 11 million hours.**

	2016	2017	2018
Organic waste sent to biogas plant (tons)	4,772	4,728	5281
Biogas Equivalent (m ³)	477,200	472,800	528,100
Compost Equivalent (tons)	2,776	2,734	3,051

