### Environment

With the aim of helping to create a recycling society, the Otsuka Group is actively striving to achieve zero waste for final disposal, through recycling and reduction of waste.

## **Initiatives for a Resource Recycling Society**



Otsuka Pharmaceutical: Tokushima Wajiki Factory

# Aiming to Achieve Zero Emissions Based on the 3Rs

Through efforts to reduce, reuse, and recycle (3Rs), the Otsuka Group is helping to build a recycling-oriented society and working toward the goal of achieving zero emissions.

As part of measures to reduce waste, the Group has developed an eco-bottle that cuts the amount of raw materials needed to make plastic beverage bottles. It is also actively pursuing reductions in other containers and exterior packaging materials.

As part of initiatives to reuse resources, the Group makes effective use of food waste as animal fodder and compost. In Group offices, office supplies are actively being reused.

In the area of recycling, the Group is promoting efforts to recycle its high-quality polyethylene scrap.\*<sup>1</sup> The scrap is used to manufacture and then sell recycled pellets. Efforts are also being made to use the pellets within the Group, such as a material to make squeeze bottles. Moreover, waste liquids generated during manufacturing are used in thermal recycling\*<sup>2</sup> and some are reused as fuel while syrup waste is used in biomass generators. Such efforts contribute to both waste reduction and energy conservation.

By actively pursuing these kinds of initiatives at each Group company, 25 plants (74% of the 34 plants at 13 companies in Japan) achieved zero emissions in 2014.

Otsuka Group



Otsuka Pharmaceutical Factory: Naruto Factory

### Wastewater Treatment and Facilities Updates

Otsuka Pharmaceutical Factory, which has a factory in the city of Naruto in Tokushima prefecture overlooking Harimanada (the eastern part of the Inland Sea) and the Kii Channel, manages the water quality of factory effluent under voluntary management standards that are more rigorous than the reference values, in order to reduce its environmental impact and ensure thorough compliance. Naruto Factory revised its conventional drainage system based on a difference in height, changing to a pump-driven system that will ensure the prevention of accidents even if the river water level rises abnormally due to a typhoon or other cause.

Otsuka Pharmaceutical Factory



Otsuka Pharmaceutical Factory: Environmental Education through e-Learning

#### **Providing Environmental Education**

The Otsuka Group provides environmental education to all employees, in order to carry out environmental activities based on self-awareness and correct knowledge. Otsuka Pharmaceutical distributes educational materials every other month. Otsuka Pharmaceutical Factory distributes 10-minute video lessons via e-learning that make the material clearer and easy to work on. Taiho Pharmaceutical provides e-learning education to encourage understanding of environmental problems and the company's environmental initiatives.

Otsuka Pharmaceutical, Taiho Pharmaceutical, Otsuka Pharmaceutical Factory, Otsuka Packaging Industries



J.O. Pharma: Recycling rate increased through promotion of plastic recycling



Otsuka Pharmaceutical: "Otsuka Academy of the Environment" educational tool

- \*1: Excess plastic shaved from the edges of products in manufacturing
- \*2: Recovering and utilizing the energy generated during the incineration of waste