

A Luxury Hotel Recycling Food Waste

Large-scale hotels are locations where vast quantities of food are prepared and consumed every day. For more than twenty years, one large hotel in Tokyo has continued its on-site initiatives to turn food waste from within the hotel into a resource.

The Main, the 40-story Garden Tower, and the Garden Court office building at Hotel New Otani Tokyo

KATO KYOKO

THE Hotel New Otani (Tokyo), which opened in 1964, is known as a luxury hotel representing Japan. Three buildings - The Main, the 40-story Garden Tower, and the Garden Court office building - have been built on the approximately 70,000 m² grounds, formerly the site of a feudal lord's mansion, while preserving the large Japanese garden. With 1,479 rooms, the hotel welcomes many guests from within Japan and abroad.

Within the expansive buildings are 37 bars and restaurants, featuring French, Japanese, Chinese, and other cuisines, and guests can

enjoy various foods and drinks. However, 3,500 to 4,000 kilograms of food waste are produced per day on average in the kitchens of these restaurants and bars within the hotel. At first, disposal of this food waste was the only option, but hotel employees suggested the food waste might be reused as some sort of a resource, and this led the hotel to consider the idea. As a result, a compost plant was installed on the hotel grounds in 1999 that can process up to 5,000 kilograms of food waste per day, and since then, has created a system to reuse 100% of the food waste as a resource.

The food waste extracted from hotel kitchens is dried that day at the compost plant with high temperature vapors using exhaust

heat from hotel boilers, etc. More than 80% of food waste is water, and so the volume of dried food waste is about 1/5 to 1/6 of what it was before being dried. After letting it ferment in a fermenter for one week, the waste is then transported to a specialty compost center in Tochigi Prefecture that produces compost. There it is mixed with sawdust and left to ferment a second time, creating compost. The completed compost is delivered to cooperating farmers. When rice or vegetables that are organically grown or grown with reduced pesticide using this compost are ready, they are bought by the hotel and used mainly in the employee dining room.

Kumaki Yoshio, head of the hotel's Facility Management

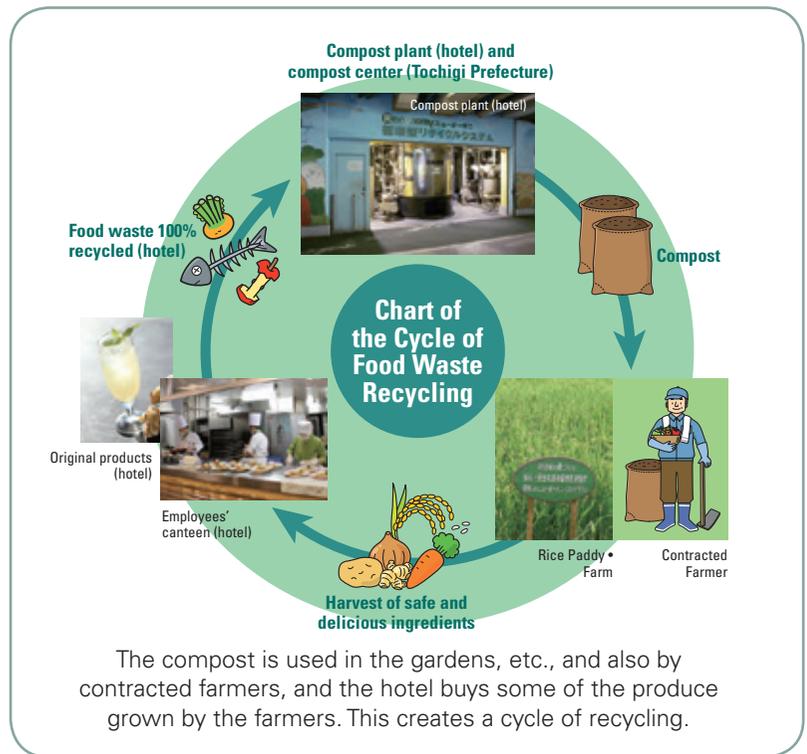
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Department, says, “We have cooperating farmers from eight farms using this food waste compost to grow produce. The risk is low for farmers and the situation is reliable for us, as the volume of produce is determined by the yearly contract and is collected at a set price, even when the crop yield isn’t so good.”

Food waste recycling with a compost plant has been established as a cyclical model project that doesn’t create a deficit.

“Our hotel features a wide variety of functions, or put another way, it is a mini-city model,” says Kumaki. “In addition to food waste recycling, there are also facilities to create drinking water from underground water on the hotel grounds, creating a water supply for emergencies, for example. We are aiming to create a cyclical community together with our customers and also with our staff and nearby residents.”

Currently, the recycling rate of garbage at all buildings of the Hotel New Otani Tokyo is about 75 to 76%, including the food waste recycling through the compost plant. Kumaki says that the next



issues in improving the recycling rate and decreasing garbage are paper and waste plastic. He says that they have begun experimenting with dissolving shredded paper waste and reprocessing it into cardboard. Also, since July 2019, they have changed from plastic-made straws to paper ones at all bars and restaurants within the hotel, and they no longer provide straws unless necessary after checking with guests. Kumaki

continues, saying that it is important to widely communicate these initiatives moving forward.

“Protecting a garden of abundant greenery and 400 years of history, our hotel has made consideration for the environment a principle since it opened. Moving forward, we think it is important to communicate these efforts in a way that is easy to understand and to connect with the next generation.”

