

## Three Lodges Install On-Site Food Waste Management Solution To Solve Food Waste Challenges

Waste management represents a real challenge for lodge operators. For instance, in the Okavango Delta, all lodge waste must be trucked out to waste management facilities outside of the delta. Unfortunately given the putrescible nature of food waste, this waste stream needs to be treated on-site.

Current methods include adding this waste into food waste pits. Food waste is dumped into these pits where it rots and also, when the pits are not properly built and maintained, is scavenged by a wide range of animals including honey badgers, baboons, hyaena, dwarf mongoose, insects and various birds which feed off the waste as well as breeding insect populations.

These waste pits are a risk to animal health as well as to staff and guests who could 'bump' into dangerous animals attracted to the waste from the lodge.

In order to solve these waste challenges Belmond Safaris (Savute Elephant Lodge), Great Plains Conservation (Selinda Concession) and Red Carnation (Xigera Safari Lodge) have installed Earth Probiotic's on-site Earth Cyler composting machines at their various lodges and concessions.

The Earth Cyler is a fully automated composter which can process up to 3,500kg of food waste per month plus additional waste cardboard input. The Cyler is very energy efficient and can also be solar powered.

As well as solving the issue of food waste through on-site composting, the Earth Cyler requires the addition of carbon rich material. This includes waste cardboard, egg cartons, newspaper, toilet roll holders, used paper serviettes and non-chemically contaminated kitchen towels.

As these carbon inputs need to be shredded the Earth Cyler is now packaged with a small macerator (this macerator can also shred other waste streams including plastic and aluminum cans and thus reduce the volumetric weight of this material thus saving storage space and reducing waste removal costs).

The Earth Cyler is a closed system. Scavengers are unable to access the food waste inside and new units have been designed to ensure that the composter will be able to withstand the inquisitiveness of a full baboon troop.

The big challenge for these type of machines being installed in remote locations is maintenance. Earth Probiotic's vision is to position these units as "the Toyota's of composting machines" i.e. robust, easy to service and find parts, and fixable by anyone anywhere.

With a reliable data connection the Earth Cyler can also be remotely managed from anywhere in the world: software can be remotely updated, PLC program errors are easily fixed and, with this function, the whole composting process can be monitored with operators receiving feedback on the composting process.

Online dashboards are available to make reporting quick and easy. All input and output weights are recorded and can be used to provide everyone in the organization a view of the beneficial environmental impact from this activity as well as feedback and consequent reduction strategies, of waste volumes.

The Earth Cyler is an easy to install, easy to operate and safe solution to any lodge's food waste challenge. With international guests increasingly environmentally sensitive and challenging, on-site composting not only solves food waste challenges, it also demonstrates a lodge's commitment to reducing its impact on the environment.