EM use in eco-friendly hotels and restaurants

In hotels, in particular where the management has a commitment towards a better ecological performance, EM (Maple EM.1) may be introduced in various areas leading to a decreased use of chemicals that pose a burden on the environment, to improvements in hygiene and cleanliness, and to improved treatment of solid and liquid and human wastes. Naturally, such practices may be combined with biological wastewater treatment – for example, in decentralized wastewater treatment systems ("dewats") – and re-use of treated water for gardening, toilet flushing, and cleaning of floors and carpets.

Hygiene management

Hygiene management with AEM can very well achieve odor-free cleanliness on all types of floors and walls, on carpeted areas and on tiled surfaces, in particular in toilets and bathrooms. AEM treatment will also control pests such as flies and cockroaches by eliminating the organic debris upon which they feed.

For this purpose, the premises should be washed at least twice a day with extended EM solution diluted 1:100 with water. For example, use 100ml of AEM in a 10-liter bucket of water. If cleaning requires two buckets of water, 200 ml of AEM will be required for one cleaning and 400 ml for a day, i.e. and 12 liter per month (amounting to half a liter EM1 per month).

Toilet bowls and urinals may be wiped or washed or sprayed with undiluted AEM once every day. Whenever a particular odor nuisance turns up, the area should be cleaned as described above, and a few ml of undiluted AEM be sprayed.

Composting of kitchen waste and biodegradable waste

Solid waste management implies separation of compostible and non-compostible waste at the source. All compostible waste should be made into compost, preferably in a heap or so-called windrow (and in areas of very low rainfall in pits).

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Good composting depends 1.) on the appropriate mixture of plant and animal waste – a condition that we cannot fulfill with kitchen waste alone; wherever garden waste, e.g. leaf litter, is available, it should be mixed into the compost; 2.) on waste material being chopped into appropriate small pieces – anything from 1-5cm is fine; and 3.) on appropriate moisture conditions – in summer we need to add water, during monsoon rains we rather provide drainage off the heap.

Kitchen and canteen waste in general is very wet, it tends to quickly develop fouling processes and foul smell. Spraying AEM over the compost heap is often enough to prevent bad smell and flies. If mixed regularly into the compost heap (5 liters AEM in a huge heap of 2 tons raw materials), it enhances composting and produces an improved compost.

Gardening
All compost, as well as EM compost, should be utilized in gardens, on lawns, and in flower pots. Further, AEM can be used in irrigation, in a dilution of 1:500 to 1:1,000. This will help to prevent plant diseases and pests, increase stress resistance of the plants, and increase yields and quality of the produce (e.g. color and scent of flowers, shelf life of flowers and produce).

EM use in garden pools
With the use of AEM in garden pools and ponds, odors from fouling organic matter can be controlled, scrubbing of algal scaling on walls can be avoided, water can be used without exchange for prolonged periods of time, thus water and expenses be saved. AEM is to be introduced in dilutions of 1:1,000 to 1:2,000, initially every few days and later once a week.

EM use in wastewater treatment
EM helps to improve the performance of wastewater treatment systems, bringing down COD, BOD, TSS levels etc. It should be introduced into the treatment system as high upstream as possible, i.e. preferably in the bathrooms and toilets. For details of dosing AEM in sewage treatment plants, please consult an EM expert.

EM use in cooling systems
AEM can also be used in cooling systems to avoid algae and fungus formation. Simultaneously AEM use will soften the water and render the use of chemical softeners obsolete. However, we do not know as to what extent AEM can control the growth of legionella, the most-feared pathogen in cooling systems.

Summary
With the use of Maple EM.1 in hygiene, composting, gardening, and wastewater treatment, our practices become eco-friendly. AEM input makes it possible to dispense with environmentally burdening household agents, and helps to close the natural ecological loops, transforming liquid and solid wastes into resources and facilitating quick and easy on-site re-use of treated and processed waste materials.

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