

Two Best Practices

1.

Department of Chemistry

Microscale Techniques in Chemistry: Minimal Use of Chemicals

Microscale techniques is an environmentally safe pollution prevention method of performing chemical processes using small quantities of chemicals without compromising the quality and standard of chemical applications in education (www.microscale.org). "Thus, where students formerly worked with 10-50 g of starting material and 50-500 g of solvent, they may now work with 10-150 mg of reactant and 1-10 g of solvent "

Reduction of hazardous waste disposal "...most of the product generated in the (semi-micro) laboratory is never employed for any useful chemical purpose." "...if you need 100 mg, make 100 mg, don't make 5 g and throw away 4.9 g "

In our chemistry lab, we adopted following methods.

1. Double burette titration
 2. Spot test
 3. Adopt adding the solvent instead of pouring the solvent
 4. 15 ml test tube is replaced by 5 ml test tube
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2.

Department of Zoology

Vermicompost

Vermicompost is method of preparing enriched compost with the use of earthworms. It is one of the easiest methods to recycle tree leaves wastes and to produce quality compost. Earthworm consume biomass and excrete it in digested form called worm cast. Worm casts are popularly called as black gold. The casts are rich in nutrients, growth promoting substances, beneficial to micro flora and having properties of inhibiting pathogenic microbes. Vermicompost is stable, fine granular organic manure, which enriches soil quality by improving its physicochemical and biological properties. It is highly useful in raising seedings and for crop production. Vermicompost is becoming popular as major component of organic farming system.

Earthworms are important component of soil which helps converting in solid waste into nutrient rich soil. Earthworms are not only intestine of earth but their cast serve as important source of mineral and variety of trace elements. Thus vermicomposting is a best practice for solid waste management. Vermicomposte / vermiculture is a part of applied zoology. This activity is run by department of zoology under the guidance of Dr. Mrs. K. M. Paturkar.

Students of zoology actively participate in this activity run by the department. In one cycle of vermicomposting near about 275-300kg of organic compost is generated. We use green waste from the college yard, waste food material from canteen and other solid waste except glass, metals and plastic for generating vermicompost. Mostly a culture of *Eisenia foetida*, a particular species of earthworm used for composting. Vermicomposting is ecofriendly and cost effective method for management of solid waste.

