Incorporation of the GEMs item:  *The dose makes the poison: Measuring ecotoxicity using a lettuce seed assay* submitted by Irv Levy into the General, Organic and Biochemistry (GOB) curriculum.

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**Summary:** Warning! In this experiment methanol is least toxic to the lettuce seeds. It is important to remind the audience that this is not directly transferable to human health, since methanol is the most toxic of the three alcohols in humans. Students assess the toxicity of methanol, ethanol and isopropanol by examining the effect these substances have on germination of lettuce seeds. The experiment involves setting up Petri dishes with wetted filter paper on which the seeds are placed. Data including germination percentage and average root length are collected and correlated to solvent identity and concentration.

The experiment provides a very appropriate introduction to toxicology for students in GOB. The procedure is flexible and could be arranged to involve students in experimental design, data presentation and statistical evaluation of the data. Evaluation of hazard, solvent selection and choosing and using metrics are all considered.