sciforum-124159: Paracetamol toxicity by phytotesting with *Lepidium sativum*

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Environmental pollution by widely used pharmaceuticals, in particular, paracetamol, is known. At the same time, studies of the ecotoxicity of paracetamol with higher plants are limited. In biotesting of toxicants, *Lepidium sativum* L. is used as a sensitive test plant. The aim of this study was to study the toxic properties of aqueous solutions of paracetamol in a growth test with *L. sativum*. The methodology consisted in an experimental study of germination energy, seed germination and biometric-morphometric indicators of *L. sativum* seedlings in a growth test lasting 5 days under the influence of aqueous solutions with a paracetamol content of 0.002 % to 0.2 %, calculation of phytotoxic indices. Statistical data processing was used. It was found that a solution of paracetamol at a concentration of 0.002 % (which is higher than that observed for wastewater-0.7×10^{-8}–0.246×10^{-4} %) does not significantly change the test indicators of *L. sativum*. It is shown that the toxic properties of this compound for *L. sativum* differ from previously studied test plants and confirms the species specificity in sensitivity to the toxic effects of paracetamol. However, comparison of the results of bioassays from different publications should be treated with caution, and it is important to carry them out in cases where the same time of treatment with the toxicant is observed. Further studies should focus on assessing the toxicity of paracetamol solutions with concentrations recorded for wastewater, in particular using other plant species, e.g., *Allium cepa* L.