

outdated and crude test (N mineralization). This regulatory gap is reinforced by the recent methodological and standardization advances in soil microbial ecology. The inclusion of such standardized tools in a revised risk assessment scheme will enable the accurate estimation of the toxicity of pesticides on soil microorganisms and on associated ecosystem services. In this review we (i) summarize recent work in the assessment of the soil microbial toxicity of pesticides and point to ammonia-oxidizing microorganisms (AOM) and arbuscular mycorrhizal fungi (AMF) as most relevant bioindicator groups, (ii) identify limitations in the experimental approaches used and propose mitigation solutions, (iii) identify scientific gaps, and (iv) propose a new risk assessment procedure to assess the effects of pesticides on soil microorganisms.

<https://iupac.org/project/2014-032-1-600/>

Specification of International Chemical Identifier (InChI) QR codes for linking labels on containers of chemical samples to digital resources (IUPAC Recommendations 2021)

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This article discusses the ways of linking physical objects to digital information relevant to chemical entities, specifically those that can be described by the use of the IUPAC International Chemical Identifier (InChI). It makes recommendations on the form of the computer readable components of labels provided for chemicals and materials that are used on product/sample containers and on the associated documentation that is used when transporting these containers (either internally or during export/import). The focus is on specification of the content of the 2D Quick Response bar codes required to describe the molecular content of the containers and link to digital resources to supplement that provided on a physical label. The necessary technical and (possible) business infrastructure necessary to support the use of the InChI and InChIKey for rapid recall of relevant information is considered here and suggestions are made.

<https://iupac.org/project/2015-019-2-800/>

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