

 **O.51 - Multicriteria comparison of risk assessment and life cycle assessment ecotoxicity methods**

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First results on scientific soundness show higher scores of risk assessment (RA) compared with life cycle assessment (LCA) methods in coverage of agricultural production and coverage of production factors, however the LCA methods also show their strength considering the criteria sets environmental issues, coverage of human health, and the ones which deal with the quality of the indicator in terms of results and implementation. Therefore, further tests on different case studies are foreseen to better document the ability of each method for an application in agricultural LCA. Over the last years many life cycle assessment (LCA) models have been developed in order to analyse the toxic effect of chemical substances to the environment and to human health. Experience shows substantial variation between the models, especially when looking at pesticides in agricultural production systems. For these reasons we have chosen, within the framework of the European network of competence on pesticides (ENDURE), to compare RA toxicity models SYNOPS (JKI), IPHY (INRA) and PRZM-USES (INRA) and the LCA toxicity models EDIP, USES, IMPACT2002+ and EI99 using a multicriteria analysis. The criteria list is derived from the work of Gaillard et al. (2005). It considers the criteria groups' scientific soundness (11 criteria sets), practical feasibility (9 criteria sets) and stakeholder utility (6 criteria sets). This study is focused on scientific soundness.