

农业生态与环境科学

化学农药的安全性评价及风险管理

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摘要 当前, 农药安全已成为一个重要话题, 要发挥农药有利作用、减少负面效应、降低环境与健康影响、维护农业和农药工业及社会的持续发展, 则必须认真对待和控制农药生产和使用中的相关危害。然而风险危害是风险概率与后果(或危害程度)的组合, 农药评价与管理中忽略任一方面都可能导致不恰当的管理策略和后果。实行风险管理是农药科学管理的根本, “决策需要信息”, 风险管理的前提是安全(风险)性评价。一个完整的风险评价及管理过程包括: 风险识别、风险估计和风险决策与管理。安全评价及风险管理已逐渐成为各国农药科学管理的核心和主要方式。本文就农药安全性评价与风险管理的形成、发展、思路、基本程序、国内外的主要状况进行综述; 同时, 面对新形势下环境保护、食品安全、外贸壁垒、农药工业前景及农业持续增长等问题, 对安全评价与风险管理的作用和地位也进行相关的探讨。

关键词 [农药](#); [安全性评价](#); [风险管理](#)

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Safety Evaluation and Risk Management for Modern Chemical Pesticide

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Abstract

Nowadays, the issue of pesticide safety has become a big problem. Confronted with it, step by step pesticide risk assessment (called also safety evaluation) and risk management, which is a great guarantee to give full play to pesticide positive function, to avoid or reduce the adverse effect and keep sustainable agriculture and society develop, turn to be more important and draw more and more countries' attention. In this review, the formation, development, basic condition and the process, as well as the history on Safety Evaluation (Risk Assessment) and Risk Management of Chemical Pesticide at home (China) and abroad are introduced in detail. Meanwhile, the role and significance of them to Modern Pesticide industry and to Sustainable Agriculture, are discussed also. Main ideas including: Concept of safety is relative, and many factors would be involved in the realization on it. Second, the hazard of risk consists of two factors: possibility and consequence, both of which should be considered in the safety evaluation of pesticides, omitting either of which would bring about un-scientific measures or management drawn out or taken on. It is clear, gradually, that the essence of scientific pesticide management lies in carrying out risk management. However, safety evaluation is the prerequisite of risk management, for "Decision needs information". A comprehensive process of risk assessment includes: hazard identification, risk estimation, risk countermeasure and management. Safety evaluation and risk management come to be the center and the important mode of pesticide scientific management or control.

Key words [chemical pesticide](#) [safety evaluation](#) [risk management](#)

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