

核农学在中国

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核技术是农业科学研究的有力工具,在中国形成了一门以核技术农业应用为主要内容的综合性很强的交叉学科——核农学。核农学是农业科学和农业生产中的一项高新技术,是非核动力应用中的一个重要方面,也是核技术应用一个卓有成效的科学领域。核农学涉及到许多基础理论、方法学和应用技术及工艺等一系列问题,在具体应用中需要不断研究创新才能发挥其作用。在过去的数十年间,我国重视了上述各方面的研究,核技术在农业领域中的应用(包括诱变育种、核素示踪技术以及食品辐照)对我国的农业科学和农业生产的发展起了重大的推动作用,其研究成果的应用产生了巨大的经济效益、社会效益和生态效益。本文简要回顾了我国核技术农业应用研究的巨大成就和发展现状,也列举了面临的一些问题,呼吁政府和科技管理部门继续予以重视和支持,以使其继续发展,为国家、为“三农”、为全面建设小康社会作贡献。

关键词 核技术农业应用, 同位素示踪, 辐射诱变遗传育种, 辐射加工

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Nuclear agricultural sciences in China

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Nuclear technique is a powerful scientific tool in agricultural research, an area with fruitful achievements in China. Nuclear technique application in agriculture, based on developments of related sciences and technology, is of a high technical area, and also a meaningful aspect of non-electrical power applications of nuclear techniques. Nuclear agricultural science is an important component of agricultural science and technology, and has been making a great number of significant achievements, which have made remarkable contributions to economical, social and ecological developments in China. The paper gives a brief review on the achievements and present situation of nuclear agricultural sciences in China. For promoting its development, the author strongly suggests that even more attentions and supports be made by Chinese government bodies to promote studies on nuclear agriculture sciences, enabling it to make further more contributions to the nation's endeavor to ensure every family a relatively comfortable life by solving problems in China's agriculture, farm villages and farmers.

KEYWORDS Nuclear technique in agriculture, Isotopic tracer, Crop mutation genetics and breeding, Food irradiation

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