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设施农业工程技术分类方法探讨

Discussion on classification method of protected agricultural engineering technology

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中文摘要:

中国设施农业工程技术经过多年发展后已渐成体系，并越来越体现出较完整的复杂系统特点，成为产业发展中最活跃的要素。技术分类作为揭示设施农业技术体系特征、促进学科建设、指导科学研究和技术推广工作的关键基础性工作，亟需在方法论和分类实务上取得突破，以在把握不同技术对象特殊矛盾和特殊运动规律的基础上更科学地指导设施农业工程技术的全面协调可持续发展。该研究立足当代设施农业工程技术的广义概念和广义要素，在遵循层次性、稳定性、开放性、现实性等系统原则的基础上，通过对设施农业工程技术内容、特点和现有技术分类方法的分析研究，确定了分别反映设施农业工程技术链、技术环节、技术功能、技术手段等属性的4层次线分类方法，并以设施园艺为例进行了方法验证。结果表明，该方法可以较准确地反映设施农业工程技术全貌、揭示技术系统的结构与功能特征，对设施农业学科发展、技术创新、产业升级都有较高的借鉴参考价值。

英文摘要:

Protected horticultural technology in China has being developed into a system with more and more completely systematic characteristics and has being become the most active element in the development of the industry. As a fundamental critical study for revealing the characteristics of protected horticultural technology system, improving the discipline construction and instructing the scientific research and technique extension, technology classification was in need of the methodology and practice study to guide the comprehensive coordination and sustainable development of protected agricultural engineering technology based on understanding the different contradiction and special motion of different technical objects. Based on the generalized conception and generalized elements of protected agricultural engineering technology, 4 level line classification method was put forward, which identified the attributes of technical chain, technology link, technology function and technology measures of the protected agricultural engineering technology respectively, through the analysis of the content and features of protected agricultural engineering technology, and existing technical classification methods, by following the systematic rules of hierarchy, stability, openness, and reality. The facility horticultural technology was taken as an example to validate classification method. The results showed that the method could comparatively reflect the engineering technology panorama of protected agricultural and reveal the structure and functional characteristics of the technology system. This research provides reference and theoretical support for the discipline development, technological innovation as well as industrial upgrading.

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