

工程与应用

农用地定级决策树模型构建与应用研究

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摘要 针对传统农用地定级的缺陷, 探讨了应用决策树方法进行农用地定级评价的研究思路和技术路线, 构建了基于MATLAB和决策树C4.5算法的农用地定级模型, 并以平阴县栾湾乡为试验区, 选取7个指标作为测试属性, 运用模型预测农用地级别, 并以定量规则的方式表达所获取的知识。结果表明, 基于决策树的农用地定级不依赖经验知识, 其知识易于理解, 且具有较高的准确率, 能够满足评价的要求。

关键词 [决策树](#) [农用地定级](#) [可视化](#) [MATLAB](#)

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Construction and application of agricultural land grading model based on MATLAB and decision tree

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Abstract

Aiming at the defects of traditional agricultural land grading, this paper discusses idea and technical route of agricultural land grading on the application of decision tree method, and constructs an agricultural land classification model based on MATLAB and decision tree C4.5 algorithm. Luanwan village of Pingyin county is used for the trial. Seven indicators are selected as test attributes. Agricultural land-level on support of this model is predicted, and the rules are expressed by way of quantitative expression. The results show that, agricultural land grading based on decision tree doesn't rely on empirical knowledge. The know-ledge is easy to be understood, and the higher rate of accuracy will be able to meet the requirements of evaluation.

Key words [decision tree](#) [agricultural land grading](#) [visualization](#) [MATLAB](#)

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