

**Soils nutrient under different vegetation restoration models
in red soil erosion slope, north of Jiangxi Province**

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Abstract: To explore relationships between vegetation restoration models and soil nutrient, and provide the advices for rational utilization of the land resources in eroded slope of red soils, effects of vegetation restoration model on soil nutrient were analyzed with the gray incidence analysis method, using different vegetations, such as grasses, orchard, fruit trees+grasses, fruit trees &crops and fruit trees+crops. Results show that the effects of soil nutrient vary from vegetation to vegetation and from model to model. The model that fruits interplanted horizontally with corps is optimal in integrated effect, and followed by the models fruit trees + grasse, fruit trees + grasses & crops and better than the models fruit trees interplanted vertically with crops, grasses. Orchard is the least rational model in this area. In the vegetation restoration in severely eroded hilly areas of red soils in North Jiangxi Province, it is recommended to adopt the models of fruit trees+ contoured crops and ruit trees + grass for extension of vegetation restoration in the hilly regions.

Key words: soil nutrient; vegetation restoration model; red soil erosion slope