

农业技术措施对AM真菌群落结构的影响研究进展

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Effects of agricultural practices on community structure of arbuscular mycorrhizal fungi in agricultural ecosystem: A review.

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摘要 农业生态系统中AM真菌多样性丰富, 并以独特的群落结构发挥其功能. 寄主植物和环境因子对AM真菌群落结构具有重要影响, 此外, 农业技术措施对农业生态系统中AM真菌群落结构的影响也值得关注. 本文系统总结了施肥、灌溉、轮作、间作、土壤耕作、化学药剂等农业技术措施对AM真菌群落结构的影响研究进展, 分析了农业技术措施改变AM真菌群落结构的可能机制, 探讨了提高农业生态系统中AM真菌多样性的可能途径, 提出通过改进施肥体制及其配套技术、增加植物多样性和人工接种AM真菌等可提高农业生态系统中AM真菌多样性; 并指出当前存在的问题和今后的研究方向.

关键词: [AM真菌](#) [群落结构](#) [农业措施](#) [土壤管理制度](#) [农业生态系统](#)

Abstract: Arbuscular mycorrhizal (AM) fungi are rich in diversity in agricultural ecosystem, playing a vital role based on their unique community structure. Host plants and environmental factors have important effects on AM fungal community structure, so do the agricultural practices which deserve to pay attention to. This paper summarized the research advances in the effects of agricultural practices such as irrigation, fertilization, crop rotation, intercropping, tillage, and pesticide application on AM fungal community structure, analyzed the related possible mechanisms, discussed the possible ways in improving AM fungal community structure in agricultural ecosystem, and put forward a set of countermeasures, *i.e.*, improving fertilization system and related integrated techniques, increasing plant diversity in agricultural ecosystem, and inoculating AM fungi, to enhance the AM fungal diversity in agricultural ecosystem. The existing problems in current agricultural practices and further research directions were also proposed.

Key words: [arbuscular mycorrhizal fungi](#) [community structure](#) [agricultural practice](#) [soil management system](#) [agricultural ecosystem](#)

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[1] . 城市生态系统中AM真菌侵染与群落结构特征[J]. 应用生态学报, 2011, 22(07): 1939-1943.

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