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农村发展—生态资源环境

石灰性土植物磷胁迫的适应性调控机制研究

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摘要：

石灰性土因较高的Ca+浓度和较低的土壤含水量，导致土壤中有效态P含量较低，植物生长发育常受到P营养胁迫。笔者从元素营养角度综述了石灰性土中植物生长发育过程的控制因子及其适应性调控机制。重点对植物在P营养胁迫状态下的根系变异、根分泌物、菌根真菌侵染等方面进行了讨论。同时，对研究中存在的问题进行了简评，并对其研究前景作了展望。

关键词： 调控机制

Adaptability and Regulation Mechanisms of Plants on Phosphorus Stress in Calcareous Soil

Abstract:

There is a low content of solubility phosphorus or easily exchange state phosphorus in the calcareous soils because of the high concentration of calcium ion and the low soil moisture. Therefore, the plants living on this soil always suffer from the phosphorus stress. The author summed up the controllable factors and adaptability mechanisms of the plants which growing and developing in calcareous soil, mainly from a view of the nutrient elements. There is a focus on discussion and review of the root system aberrance, root system secretion, and the mycorrhizal fungi infection in root system when the plants live in the condition of phosphorus stress. Furthermore, this paper had a brief review on the problem in correlative studies, and the study trends of this field were also prospected.

Keywords: regulation mechanism

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