

研究论文

不同生产时期小麦品种有效利用土壤潜在磷特性的鉴定

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摘要 以液培、土培盆栽法结合大田试验对我国不同时代陕西关中地区的小麦品种进行了有效利用土壤潜在磷特性的鉴定。结果表明: 小麦有效利用土壤潜在磷的特性不是随品种的更替而呈递增或递减趋势, 新、老品种中均有高效利用土壤潜在磷的基因型; 含有异源基因的小麦品种对土壤潜在磷的利用能力较强; 土培盆栽法是一个较能代表大田试验的筛选小麦有效利用土壤潜在磷特性的方法, 而液培法的干物质重不适用于作为该特性筛选的指标; 土培盆栽法中选择压力(即缺磷程度)是筛选成败的关键, 3年的试验结果证明, 缺磷处理中土壤有效磷在8 mg/kg左右是小麦有效利用土壤潜在磷特性筛选的适宜的选择压力。

关键词 [土壤潜在磷](#) [选择压力](#) [小麦基因型](#)

分类号

Identification of Efficiently Utilizing Potential Soil Phosphorus Characteristics of Common Wheat Cultivars Grown at Different Times

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Abstract Identification of characteristics in relation to efficiently utilizing potential soil phosphorus (P) of wheat cultivars grown in different eras was carried out by pot experiments combining with field test and solution culture. The results show L: There is no regular relationship between cultivar substitution and the characteristics, and efficient and inefficient genotypes exist in both new and old cultivars; cultivars carrying alien genes have strong abilities to utilize potential P in soil; pot experiment method, whose yield results can represent that in field test, is an effective way in screening the characteristics of wheat, while the solution culture is not suitable, at least when dry matter weight used as parameter; selection pressure is the key point in the screening with pot experiments, according to three-year-pot-experiment, 8 mg/kg soluble P-P (i. e. phosphorus deficiency) treatment is appropriate.

Key words [Potential soil phosphorus](#); [Selection pressure](#); [Wheat genotype](#)

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