

植物诱变育种 · 农业生物技术

体细胞无性系变异在草坪草改良上的研究进展

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摘要:

体细胞变异是来源于细胞和组织培养过程中的变异。本文综合国内外体细胞无性系变异的相关研究,概述了体细胞无性系变异的来源、遗传学基础及筛选与鉴定途径,详细介绍了体细胞无性系变异在选育抗逆境胁迫、抗病虫害、抗除草剂草坪草等方面的研究进展,叙述了应用体细胞无性系变异育种存在变异类型复杂、变异方向难以预期、劣变多、突变细胞系分化能力下降、变异遗传不稳定等问题以及讨论了利用离体筛选的方法获得相应变异体来丰富草坪草育种材料的前景。

关键词: 体细胞无性系变异 草坪草 育种

Progress in Somaclonal Variation and Its Application in Germplasm Improvement of Turfgrasses

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Abstract:

Somaclonal variation is defined as variation originating in cell and tissue culture. The paper combined domestic with foreign research of somaclonal variation, summarized the sources, the mechanism, the selection and identification of somaclonal variation. In addition, a detailed introduction of its application in breeding turfgrass species with stress-resistance, diseases-resistance and herbicide-resistance was included. The paper pointed out the shortages of somaclonal variation such as the complexity, unexpectedness, inferiority, reduction of differentiation ability and genetic instability in variation. Besides, prospects of its application in enriching breeding resources for turfgrasses through in vitro selection were also discussed.

Keywords: Turfgrass Somaclonal variation Breeding

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