

研究论文

大豆品种的再生性能及对EHA 101农杆菌的敏感性

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摘要 大豆转化可利用农杆菌和子叶节转化系统, bar基因作为选择标记, 草丁膦作为选择试剂. 用5-6 d发芽的种子的子叶节作外植体, 在子叶节处划5-6下, 用含pPTN 140的农杆菌EHA 101感染后, 共培养3 d, 用含抗生素的洗液洗去外植体上的农杆菌, 将外植体放入5 mg/L草丁膦的长芽培养基, 两周后统计不同大豆品种的再生率, 4周后做GUS染色对含pPTN140的农杆菌的敏感性进行统计. 结果得知: 黑农35、中作975、合丰35、Zhongzuo 962 是在再生方面比Thorne更好的品种. William 82、黑农35、中作 975、PI 361066 转化频率较高.

关键词 [大豆](#) [再生](#) [对农杆菌的敏感性](#)

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Regeneration Study of Soybean Cultivars and Their Susceptibility to Agrobacterium tumefaciens EHA 101

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Abstract The soybean transformation procedure included the Agrobacterium-cotyledonary node system and the bar gene as the selectable marker coupled with glufosinate as a selective agent. Cotyledonary nodes from 5 to 6 days germinated soybean seeds were used as explants. The explants, were wounded by slicing 5 to 6 times, inoculated with Agrobacterium tumefaciens EHA 101 with pPTN140, then followed 3 days co-cultivation, washed the explants by wash medium which contain antibiotics, put explants onto shoot initiation medium with 5 mg/L glufosinate for selection. Regeneration rate of different soybean cultivars was counted 2 weeks later, and their susceptibility to Agrobacterium tumefaciens was investigated 4 weeks later by GUS assay. According to our experiments, Heinong 35, Zhongzuo 975 (Zhonghuang 13), Hefeng 35, Zhongzuo 962 are better than Thorne for regeneration, William 82, PI 361066, Heinong 35 and Zhongzuo 975 were better than Thorne for transformation.

Key words [Soybean](#) [Regeneration](#) [Susceptibility to Agrobacterium](#)

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