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# 农杆菌介导超高产大豆子叶节遗传转化研究

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作者: 贾钰莹[1] (KeySearch.aspx?type=Name&Sel=贾钰莹)； 蒋滢[2] (KeySearch.aspx?type=Name&Sel=蒋滢)； 赵强[1] (KeySearch.aspx?type=Name&Sel=赵强)； 谢甫绨[1] (KeySearch.aspx?type=Name&Sel=谢甫绨)； 于翠梅[1] (KeySearch.aspx?type=Name&Sel=于翠梅)
1.沈阳农业大学 农学院，辽宁 沈阳 110866；
2.沈阳师范大学 生化与化学与生命科学学院,辽宁 沈阳 110034

Author(s): JIA Yu-ying[1] (KeySearch.aspx?type=Name&Sel=JIA Yu-ying)； JIANG Ying[2] (KeySearch.aspx?type=Name&Sel=JIANG Ying)； ZHAO Qiang[1] (KeySearch.aspx?type=Name&Sel=ZHAO Qiang)； XIE Fu-ti[1] (KeySearch.aspx?type=Name&Sel=XIE Fu-ti)； YU Cui-mei[1] (KeySearch.aspx?type=Name&Sel=YU Cui-mei)
1.College of Agronomy,Shenyang Agricultural University,Shenyang 110866,China;
2.College of Chemistry and Life Science,Shenyang Normal University,Shenyang 110034,China

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摘要: 为建立一个大豆子叶节高效遗传转化体系用于大豆基因工程育种，以超高产大豆品种为材料，子叶节为外植体进行了遗传转化，研究了农杆菌侵染的菌液浓度、侵染时间、共培养基中乙酰丁香酮浓度及共培养时间等影响农杆菌转化的因素。结果表明：适宜转化的侵染和共培养条件为侵染菌液浓度$OD_{600}$=0.5，侵染时间30 min，共培养基含有乙酰丁香酮浓度200 μmol.$L^{-1}$，共培养时间为3～4 d。并以此条件对不同基因型超高产大豆品种进行农杆菌转化，结果显示大豆基因型对农杆菌的敏感性存在显著性差异，以沈农9号最敏感，沈农12次之，中黄35最差。

Abstract: To establish a high frequency genetic transformation system of soybean cotyledon node for soybean genetic engineering,Agrobacterium concentration,infection time,co-cultivation time and acetosyringone concentration of co-culture medium during soybean cotyledonary node transformation were studied by using soybean cultivars with super-high-yielding.The results showed that the optimal conditions were Agrobacterium concentration $OD_{600}$=0.5,infection time 30 min,co-cultivation time 3-4 days and acetosyringone concentration 200 μmol.$L^{-1}$.Using the optimized transformation procedure,different genotypes of super-high-yielding soybeans were transformed and the sensitivity of soybean genotypes to Agrobacterium tumefaciens was significant differently.Shennong 9 was the most sensitive material,followed by Shennong 12,and Zhonghuang 35 was the least sensitive material.

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第一作者简介：贾钰莹(1987-)，女，博士，主要从事大豆遗传转化研究。E-mail：jiayuyinggood@163.com。
通讯作者：于翠梅(1974-)，女，博士，副教授，主要从事大豆遗传转化与基因工程。E-mail：yucuimei@163.com。

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