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[1]刘庆莉,王金生,刘丽君,等.大豆根瘤菌剂载体的选择及最佳施用浓度筛选[J].大豆科学,2014,33(02):207-210.[doi:10.11861/j.issn.1000-9841.2014.02.0207]
LIU Qingli,WANG Jinsheng,LIU Lijun,et al.Chosen of Soybean Rhizobia Carrier and Screening of the Best Concentration[J].Soybean Science,2014,33(02):207-210.[doi:10.11861/j.issn.1000-9841.2014.02.0207]
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大豆根瘤菌剂载体的选择及最佳施用浓度筛选

《大豆科学》 [ISSN:1000-9841 /CN:23-1227/S] 卷： 第33卷 期数： 2014年02期 页码： 207-210 栏目：
出版日期： 2014-04-24

Title: Chosen of Soybean Rhizobia Carrier and Screening of the Best Concentration

文章编号： 1000-9841（2014）02-0207-04

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关键词： 大豆根瘤菌 (KeySearch.aspx?type=KeyWord&Sel=大豆根瘤菌)； 结瘤 (KeySearch.aspx?type=KeyWord&Sel=结瘤)； 载体 (KeySearch.aspx?type=KeyWord&Sel=载体)

Keywords: Soybean rhizobia (KeySearch.aspx?type=KeyWord&Sel=Soybean rhizobia)； Nodulation (KeySearch.aspx?type=KeyWord&Sel=Nodulation)； Carrier (KeySearch.aspx?type=KeyWord&Sel=Carrier)

分类号： S565.1

DOI: 10.11861/j.issn.1000-9841.2014.02.0207 (http://dx.doi.org/10.11861/j.issn.1000-9841.2014.02.0207)

文献标志码： A

摘要： 为筛选出适宜根瘤菌吸附且能促进大豆生长、提高产量的优质载体，并且在优质载体的条件下，筛选出大豆根瘤菌液的最佳使用浓度，通过3种载体吸附不同浓度根瘤菌液拌种大豆盆栽播种后，对大豆的生物量、结瘤及产量的对比发现：不同载体介入、大豆接入根瘤菌后均对大豆的生物量及结瘤产生一定的促进作用。根瘤菌以草炭和蛭石为载体，更有利于促使大豆植株生长，积累更多的干物质；草炭的促进结瘤作用持续效果时间较长，液体的持续效果时间最短，而蛭石的持续效果时间相对比较居中；以草炭和蛭石作为根瘤菌载体，低浓度的根瘤菌液接入更能发挥其提高产量的作用，以液体作为根瘤菌载体，根瘤菌接入浓度较高才能发挥其提高产量的作用。结合生产成本来看，草炭土更适宜作为自主研发根瘤菌剂的载体，同时推荐根瘤菌使用浓度为1.4×108菌细胞·mL^{-1}。

Abstract: In order to screen the carrier that was more appropriate for the absorption of rhizobia,improving yield and quality of inoculated soybean,and screen the best soybean rhizobia bacterial concentration at levels of quality carrier,three carriers absorbed different soybean rhizobia bacterial concentration with seed dressing were performed according to the biomass,nodular rate and yields of soybean plant by soil pot experiments.The results showed that different carriers and inoculating soybean rhizobia could improve the biomass and nodular rate of soybean plant.Peat and vermiculite were used as carriers of rhizobia could remarkably promote the growth of soybean plant and enhance dry matter accumulation;thus the lasting effect of nodular was the longest,followed by vermiculite and liquid.Low level bacterial concentration could remarkably increased soybean yield and quality with peat and vermiculite as carriers,however the opposite when used liquid as carriers.In conclusion, in view of the cost,peat was more appropriate for soybean rhizobia,and the best bacterial concentration was 1.4×108cells·mL^{-1}

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备注/Memo 基金项目：国家“十二五”科技支撑计划(2012BAD14B06)；现代农业产业技术体系(CARS 004)；黑龙江省自然科学基金(C201104)；哈尔滨市科技创新人才研究专项资金(2013RFXYJ043)。
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更新日期/Last Update: 2014-08-04