

食品科学

喷施氯化钾对油菜植株硝酸盐含量及氮素分配的影响

董春华<sup>1</sup>, 刘强<sup>2</sup>, 文石林<sup>2</sup>, 荣湘民<sup>2</sup>, 宋海星<sup>2</sup>, 张玉平<sup>2</sup>, 高菊生<sup>2</sup>, 刘俊<sup>2</sup>

1. 中国农业科学院衡阳红壤站

2.

摘要:

本试验采用土培试验,研究了茎叶喷施质量分数为1%的氯化钾溶液对油菜角果初期和收获期植株硝酸盐含量及植株氮素分配的影响。以喷施质量分数为1.17%的硫酸钾溶液(要求氯化钾和硫酸钾溶液中钾离子的物质的量浓度相同)和清水作相比较,在开花后期开始喷施,每两天喷洒一次,连续喷洒15天,喷洒部位在茎和叶,重点喷洒叶的背面,尽量不喷洒至叶柄,于角果初期和收获期采样。结果表明,喷施氯化钾溶液能有效降低开花期和收获期油菜茎叶硝酸盐含量,与喷施硫酸钾溶液和清水相比达到了显著水平;有效促进了氮素向角果和籽粒分配,显著增强了油菜角果初期叶片硝酸还原酶的活性;同一品种不同处理之间的差异比较显著,品种之间处理后的差异也比较明显。

关键词: 油菜 喷施氯化钾 硝酸盐 氮素分配

The Effect of Spraying KCL Solution on Nitrate Content and Nitrogen Distribution of Rapeseed(Brassica napus L.)

Abstract:

The Effects of spraying 1% KCL solution on nitrate content and Nitrogen distribution of rapeseed in initial siliquing stage and harvesting stage, which were studied by using soil cultural experiment. Controlled by Spraying 1.17% K2SO4 solution (Potassium chloride and potassium sulfate solution requirements in the same concentration of potassium) and water, the stems and leaves were sprayed, focus on the back of leaves, try not to spray on petioles, sampling in initial siliquing stage and harvesting stage. Spraying KCL solution every other day for 15 days start from late flowering, results showed that nitrate content in the leafs and stems were markedly reduced, Nitrogen redistributed to silique and rapeseed were efficiently promoted, nitrate reductase activity in the leaf were markedly increased. The differences of the same species which under different treatment are more serious, and the differences of the different species which under the same treatment are more significant.

Keywords: Oilseed Rape (Brassica napus L.) Spraying KCL solution Nitrate content Nitrogen distribution.

收稿日期 2009-08-13 修回日期 2009-09-11 网络版发布日期 2009-12-20

DOI:

基金项目:

通讯作者: 董春华

作者简介:

作者Email: dch1001@126.com

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