

研究报告

含硝化抑制剂DMPP复合肥对日光温室芹菜生长和营养品质的影响

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收稿日期 2006-2-27 修回日期 2006-11-25 网络版发布日期 2007-3-21 接受日期

摘要 通过田间试验研究了含硝化抑制剂DMPP复合肥对日光温室芹菜生长和品质的影响. 结果表明, 与普通复合肥相比, 一次基施DMPP复合肥67.5和54.0 kg·hm⁻² 氮处理分别使芹菜增产5.78%和10.14%; DMPP复合肥可降低芹菜可食部分硝酸盐含量, 提高Vc、游离氨基酸、可溶性糖及氮、磷含量. 与分次施用相比, 适当减少DMPP复合肥施用次数和用量可提高芹菜产量并改善其品质, 降低生产成本. DMPP复合肥在施入土壤后具有显著的硝化抑制作用, 延缓了菜地土壤铵态氮向硝态氮的转化, 降低了氮素向水体迁移的风险. 芹菜收获后土壤中全氮、铵态氮、硝态氮残留较多, 有利于保持地力.

关键词 [DMPP复合肥](#) [硝化抑制剂](#) [品质](#) [芹菜](#)

分类号

Effects of DMPP-compound fertilizer on greenhouse celery growth and nutritional quality

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Abstract

A field study with greenhouse celery (*Apium graveolens* L.) showed that compared with basal application of ordinary compound fertilizer, one-time basal application of DMPP-compound fertilizer (ENTE[®], 12-12-17) at the rates of 67.5 kg N·hm⁻² and 54.0 kg N·hm⁻² increased the yield by 5.78% and 10.14%, respectively. The application of ENTE[®] also improved the nutritional quality of edible parts, *e.g.*, the Vc, amino acid, soluble sugar, N and P contents increased, while nitrate content decreased. Compared with basal plus side dressing applications, appropriately reducing the application rate and times of ENTE[®] had more beneficial effects on celery yield and quality, and reduced the production costs. ENTE[®] could suppress the transformation of soil NH₄⁺-N to NO₃⁻-N effectively, and thus, its application could retain soil residual N more in NH₄⁺-N than in NO₃⁻-N form after celery harvested, resulting in a reduction of nitrate leaching.

Key words [DMPP-compound fertilizer](#) [nitrification inhibitor](#) [quality](#) [celery](#)

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