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研究简报

农药对土壤脲酶活性的影响

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摘要 通过模拟方法，研究了豆磺隆和呋喃丹对草甸棕壤和黑土6个土样脲酶活性的影响.结果表明,在供试浓度范围内，两种农药对土壤脲酶均有不同程度的激活作用，其中豆磺隆对草甸棕壤和黑土脲酶活性的最大增幅分别为46.95%和39.36%，呋喃丹分别为21.08%和12.70%.豆磺隆和呋喃丹浓度与土壤脲酶活性之间用二元一次方程拟和效果较好，分别有5个和3个土样的方程达到了显著或极显著相关水平，且二次项系数为负，总体上表现为先增加后降低的规律性变化.从两种农药对土壤脲酶的增幅和方程系数来看，豆磺隆对土壤脲酶活性的影响比呋喃丹明显.

关键词 豆磺隆 呋喃丹 土壤 脲酶活性

分类号

Effects of pesticides on soil urease activity

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Abstract

With simulation test, this paper studied the effects of chlorimuron-ethyl and furadan on the urease activity of six meadow brown soil and black soil samples. The results showed that within the range of test concentrations, these two pesticides could activate the urease activity of test soils,
with the largest increment in meadow brown soil and black soil being 46.95% and 39.36% by chlorimuron-ethyl, and 21.08% and 12.70% by furadan, respectively. Quadratic polynomial equation could better describe the relationships between the concentrations of chlorimuron-ethyl and furadan and the activity of soil urease ($P<0.05$). Judging from the equations for test pesticides, chlorimuron ethyl had more significant effect than furadan.

Key words Chlorimuron-ethyl Furadan Soil Urease activity

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