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[1]陈立杰,陈井生,董健,等.放线菌次生代谢产物对不同来源大豆胞囊线虫J2毒性的研究[J].大豆科学,2008,27(04):637-640.  
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## 放线菌次生代谢产物对不同来源大豆胞囊线虫J2毒性的研究

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摘要: 抗生素是控制植物病害的重要手段之一,而放线菌是抗生素的主要产生菌。针对已筛选到的5株放线菌C25-3、H-4、H-2、C44和C49,利用室内培养法对其发酵液抑制田间大豆胞囊线虫J2混合群体的活性作用进行了比较研究。结果表明:发酵液4×稀释浓度下,处理24 h后,C25-3对大豆胞囊线虫J2的毒性最高,其校正死亡率达到95%左右;其他4株菌的次生代谢产物也具有一定的毒杀作用。对J2的校正死亡率均达到60%以上。5株放线菌菌株中,C25-3、H-2和C44对大豆胞囊线虫J2的毒性不因线虫的致病性和活性差异而改变,而C49和H-4表现出因线虫的致病性和活性差异而改变的特性。

Abstract: Plant parasitic nematode could be controlled by antibiotics effectively. It is well-known that actinomycetes should be able to produce antibiotics. At present, we had screened 5 strain actinomycetes, and tested their activity on soybean cyst nematode J2 by means of separate technique and intro-culture fermentation. Effects of secondary metabolites of actinomycetes on Heterodera glycines-J2 showed that: fermentation filtrates of strain C25-3 manifested the highest level of toxicity on J2, and the other strains also had been effective. The corrected mortality rate of J2 reached 95% by strain C25-3 at 4 diluted solution, and the other strains also reached beyond 60%. Activity of the strains C25-3, H-2 and C44 had never varied with different phenotype cyst nematodes J2 which came from Heilongjiang and Liaoning province, on the contrary, the strains C49 and H-4 displayed different level of toxicity. The phenotype cyst nematodes of Heilongjiang included race 3, race 4 and race 14, and that of Liaoning only included race 3. So we found some actinomycetes could produce broad spectrum antibiotics for different phenotype cyst nematodes and others were opposite in this research.

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