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大豆蚜玻璃管药膜法敏感毒力基线的建立

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摘要: 以采自吉林长春地区田间的大豆蚜在室内不接触药剂饲养25代以上,利用玻璃管药膜法建立了大豆蚜对新烟碱类、氨基甲酸酯类、拟除虫菊酯类、有机磷类共10种杀虫剂3.5 h的敏感毒力基线。结果表明:大豆蚜对这10种杀虫剂的敏感度较高,LC₅₀从小到依次依次为:吡虫啉(0.105 μg·g⁻¹)、功夫菊酯(0.924 μg·g⁻¹)、溴氰菊酯(1.216 μg·g⁻¹)、毒死蜱(1.557 μg·g⁻¹)、灭多威(1.918 μg·g⁻¹)、克百威(3.927 μg·g⁻¹)、马拉硫磷(5.125 μg·g⁻¹)、辛硫磷(12.551 μg·g⁻¹)、氧乐果(13.190 μg·g⁻¹)、氟戊菊酯(28.569 μg·g⁻¹)。所测得结果可作为敏感毒力基线,并为大豆蚜的抗性监测提供理论依据。

Abstract: The susceptible toxicity baselines was established by the method of the residual film in glass tube with 3.5 h exposure to the 10 kinds of insecticides including Neonicotinoid, Carbamate, Pyrethroid and Organophosphate for Aphis gylcnies Matsumura, which was collected from Changchun area. The results showed that Aphis gylcnies Matsumura was susceptible to the 10 kinds of insecticides, the LC₅₀ of the insecticides tested was arranged in increasing order as Imidacloprid (0.105 μg·g⁻¹), Cyhalothrin (0.924 μg·g⁻¹), Deltamethrin (1.216 μg·g⁻¹), Chlorpyrifos (1.557 μg·g⁻¹), Methomyl (1.918 μg·g⁻¹), Carbosulfan (3.927 μg·g⁻¹), Malathion (5.125 μg·g⁻¹), Phoxim (12.551 μg·g⁻¹), Omethoate (13.190 μg·g⁻¹), Fenvalerate (28.569 μg·g⁻¹). The results of toxicity test provided a theoretical basis for resistance monitoring of soybean aphid.

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