

研究简报

甲胺磷农药对小白菜中几种抗氧化物的影响

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摘要 : 以小白菜为研究对象,喷洒一定浓度甲胺磷农药后,测定7

d内小白菜体内可溶性蛋白质的含量及各种抗氧化物如超氧化物歧化酶(superoxide dismutase,SOD)、谷胱甘肽(glutathione, GSH)、谷胱甘肽-S-转移酶(glutathione-S-transferase, GST)、过氧化氢酶(catalase,CAT)、谷胱甘肽过氧化物酶(glutathione peroxidase,GPX)等活性的变化.结果表明,喷药后第1

天各种物质含量相对与对照变化不大,第2~6天小白菜中蛋白质、GSH、SOD、CAT都高于对照,而GPX、

GST的含量低于对照,第7天都又还原到与对照接近.说明有机磷农药喷洒后植物体内产生了氧自由基,

进而诱导细胞内防御活性氧自由基毒害的物质产生,5~6天后机体恢复正常.

实验为食品卫生检验提供了一个参考标准.

关键词 [甲胺磷农药](#) [小白菜](#) [蛋白质](#) [GSH](#) [SOD](#) [GST](#) [GPX](#) [CAT](#)

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The Impact of Methamidophos to the Activity of Antioxidant Compounds in Chinese Cabbage

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Abstract In this paper, the content of soluble protein and the activity of SOD, GSH, GST, CAT, GPX in Chinese cabbage were determined in the following 7 days after sprayed by 0.5 g/m² Methamidophos. The results indicated that the content of all parameters didn't change obviously in the first day. In the 2-6 day, the content of protein, and the activity of GSH, SOD and CAT in Chinese cabbage were higher than the control, but the content of GPX and GST were relatively lower. At the 7th day, all parameters revived to the level of control sample. The results demonstrated that treated by Methamidophos, the antioxidant compounds of Chinese cabbage were induced to withstand the toxicity of Methamidophos.

Key words [Methamidophos](#); [Chinese cabbage](#); [Protein](#); [GSH](#); [SOD](#); [GST](#); [GPX](#); [CAT](#)

通讯作者

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