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作者: 张明波 (KeySearch.aspx?type=Name&Sel=张明波); 何付丽 (KeySearch.aspx?type=Name&Sel=何付丽); 李灼 (KeySearch.aspx?type=Name&Sel=李灼); 陈丽丽 (KeySearch.aspx?type=Name&Sel=陈丽丽); 郭晓慧 (KeySearch.aspx?type=Name&Sel=郭晓慧); 赵长山 (KeySearch.aspx?type=Name&Sel=赵长山)

东北农业大学 农学院, 黑龙江 哈尔滨 150030

Author(s): ZHANG Ming-bo (KeySearch.aspx?type=Name&Sel=ZHANG Ming-bo); HE Fu-li (KeySearch.aspx?type=Name&Sel=HE Fu-li); LI Zhuo (KeySearch.aspx?type=Name&Sel=LI Zhuo); CHEN Li-li (KeySearch.aspx?type=Name&Sel=CHEN Li-li); GUO Xiao-hui (KeySearch.aspx?type=Name&Sel=GUO Xiao-hui); ZHAO Chang-shan (KeySearch.aspx?type=Name&Sel=ZHAO Chang-shan)
College of Agronomy, Northeast Agricultural University, Harbin 150030, China

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摘要: 采用盆栽试验,以东农52为材料,经不同剂量乙草胺处理后测定大豆叶绿素含量、根系活力、超氧化物歧化酶(SOD)活性、丙二醛(MDA)含量变化。结果表明:随着乙草胺剂量的增加,叶绿素含量和根系活力逐渐降低,而SOD活性和MDA含量逐渐增加;随着时间的延长,各乙草胺浓度处理的叶绿素含量和根系活力均先降低后升高,而SOD活性和MDA含量先升高后降低;施药后第28天,在1890和2700 g hm⁻²有效剂量下大豆叶绿素含量、根系活力、SOD活性和MDA含量已恢复到接近对照水平。因此,乙草胺在1890和2700 g hm⁻²有效剂量对大豆较为安全。

Abstract: The soybean cultivar Dongnong 52 was pot planted, five doses of acetochlor (0, 1890, 2700, 4050, 5400 g ha⁻¹) were leaf sprayed after emergence. Soybean plants were sampled on 7, 14, 21, 28 days after spraying, respectively, and chlorophyll content (CC), root activity (RA), superoxide dismutase (SOD) activity and malondialdehyde (MDA) content were determined. With the increment of acetochlor concentrations, CC and RA decreased, while SOD and MDA increased gradually. As the time prolonged, CC and RA of all acetochlor concentration treatments showed a decrease-and-then-increase trend, while SOD and MDA had opposite trend. On the 28th days after spraying, the tested 4 indexes all restored to control level under 1890 and 2700 g ha⁻¹ effective dosage. Results suggest acetochlor of the 1890 and 2700 g ha⁻¹ effective dosage is safe for soybean.

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第一作者简介: 张明波(1987-), 男, 硕士, 主要从事农药学相关研究。E-mail:2012.mvp.zmb@163.com。

通讯作者: 赵长山(1961-), 男, 教授, 博士生导师, 主要从事杂草生物学特性与防除技术研究。E-mail:esz_hlj@sohu.com。

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