

植物保护学报

第48卷 第5期

目次

棉花害虫防控专刊

文献综述

- 与时俱进的中国棉花害虫治理研究 陆宴辉 (937)
中国棉花害虫测报:70年回顾 姜玉英 刘杰 曾娟 夏冰 陆宴辉 (940)
棉蚜对新烟碱类杀虫剂的抗性现状及其治理策略 马康生 王静慧 解晓平 高希武 (947)
我国棉铃虫对Bt蛋白Cry1Ac抗性现状及分子机制研究进展 吴益东 管放 沈慧雯 杨亦桦 (958)

研究论文

- 基于线粒体全基因组解析华北地区棉铃虫种群遗传结构 张磊 梁馨月 张纪 萧玉涛 (964)
新疆棉花蚜虫-寄生蜂食物网结构的分子检测体系 李金花 李海强 杨帆 吴月坤 张建萍 陆宴辉 (970)
棉铃虫四个丝氨酸蛋白酶抑制剂基因的克隆与表达分析 张彩虹 Zaw Lin Naing Ei Thinzar Soe 梁革梅 (980)
棉铃虫BR-CZ2基因的克隆、原核表达及其表达谱 胡得琴 罗生慧 张亚林 刘小宁 (989)
棉铃虫ABCA2作为Cry2Ab受体的功能分析 Ei Thinzar Soe 姚雪 杨朔 段云鹏 魏纪珍 梁革梅 (999)
棉铃虫过氧化物还原酶基因Prx4的鉴定及功能分析 田志强 查萌 祝琳 申忠健 刘孝明 刘小侠 (1008)
棉铃虫烟碱类乙酰胆碱受体 $\alpha 7$ 亚基基因的鉴定及功能分析 刘少凯 谢丙堂 魏纪珍 梁革梅 (1016)
棉铃虫YTHDF1基因的表达模式及在核型多角体病毒感染中的作用 申忠健 刘彦君 祝琳 田志强 刘孝明 刘小侠 (1026)
棉铃虫ATP合酶亚基 α 对Cry2Ab毒理的影响 姚雪 马溯扬 张博 常彦鹏 李瑞敬 王明月 赵文丽 魏纪珍 (1034)
棉铃虫表皮蛋白基因CP22和CP14的表达特征其对甲氧虫酰肼的响应 张万娜 刘香亚 赖乾 肖海军 (1043)
钙粘蛋白氨基酸点突变介导红铃虫对Cry1Ac的抗性 武怀恒 王玲 许冬 丛胜波 王金涛 李文静 杨妮娜 尹海辰 万鹏 (1054)
寄主植物调控棉铃虫种群对气候变暖的不对称响应 崔洪莹 门兴元 赵紫华 (1062)
棉花生境面积及其破碎化对棉蚜数量的影响 宋海燕 李丽莉 宋莹莹 欧阳芳 于毅 胡辰璐 卢增斌 门兴元 (1069)
棉花中5-羟色胺含量的时空动态及其对棉铃虫生长发育的影响 孙佩瑶 滕东 吕贝贝 张航 张永军 (1075)
蠋蝽对棉铃虫幼虫的捕食功能反应 孙婧婧 王孟卿 唐艺婷 李心钰 张礼生 李虎 (1081)
冷藏对双尾新小绥螨捕食能力和繁殖力的影响 唐思琼 方晨 苏杰 徐娣 蓝碧云 陆宴辉 张建萍 (1088)
基于无人机成像高光谱的棉叶螨为害等级估测模型构建 郭伟 李成伟 王锦翔 丁瑞丰 张万臻 裴鹏程 王成博 陆宴辉 乔红波 (1096)
我国棉蚜对吡虫啉和氟啶虫腈抗性水平监测与交互抗性分析 李仁 梁平桌 程沈航 薛慧 郭天凤 吕楠楠 梁沛 解晓平 高希武 (1104)
21种化学药剂对新疆棉田主要害虫毒力及对多异瓢虫的安全性 黄庆超 戴长春 张建萍 陈静 陆宴辉 (1114)
河西走廊棉田主要害虫发生动态及植物源杀虫剂防治技术 张宣 刘雪莹 胡迪 袁向群 冯克云 康波 张军 罗进仓 南宏宇 李怡萍 (1125)
核型多角体病毒与中红侧沟茧蜂对寄主棉铃虫的联合效应 查萌 刘方慧 蔡丽美 祝琳 田志强 刘小侠 (1139)
马铃薯羧肽酶抑制剂与Cry1Ac毒素混用对棉铃虫中肠蛋白酶活性及杀虫活性的影响 陈文波 臧中旭 孙龙龙 郜晓妍 谢桂英 赵新成 (1147)
多杀霉素亚致死浓度对棉铃虫幼虫生理及代谢的影响 宋永辉 徐梦超 薛玉莹 魏纪珍 杜孟芳 尹新明 刘晓光 安世恒 (1156)
乳化剂EL-40对高效氯氟氰菊酯微囊防控苗期棉蚜的调节作用 王爱萍 曹海潮 狄春香 于少利 慕卫 李北兴 (1164)
三种杀螨剂对双尾新小绥螨后代生长发育和繁殖的影响 苏杰 沈秀琴 汪永乾 陆宴辉 李海强 张建萍 (1175)

研究简报

- 不同猎物对多异瓢虫生长发育与繁殖的影响 顾辉杰 戴长春 杨益众 陆宴辉 (1187)
地表捕食性天敌在稻-棉邻作田的季节性迁移 种海南 朱玉麟 江婷 黄浩伟 肖海军 (1189)
河南省安阳市有翅棉蚜共生菌感染特性 徐蔚利 高雪珂 雒珺瑜 王丽 朱香镇 汪其怀 崔金杰 (1191)
喷施吡虫啉削弱棉田红颈常室茧蜂对绿盲蝽若虫的寄生作用 夏施珂 刘冰 杨益众 陆宴辉 (1193)

封面照片: 棉铃虫 *Helicoverpa armigera* (Hübner) 陆宴辉 摄

JOURNAL OF PLANT PROTECTION

2021 Vol. 48 No. 5

CONTENTS

Special Issue for Cotton Pests Control

Reviews

- Ever-evolving advances in the researches of cotton insect pest management in China Lu Yanhui (937)
Monitoring and forecast of cotton pests in China: a review over the past 70 years Jiang Yuying, et al. (940)
Status and management strategies of neonicotinoid insecticide resistance in *Aphis gossypii* Glover Ma Kangsheng, et al. (947)
Research progress in the resistance status and molecular resistance mechanisms of the cotton bollworm *Helicoverpa armigera* to Bt protein Cry1Ac in China Wu Yidong, et al. (958)

Research reports

- Population genetic structure of cotton bollworm *Helicoverpa armigera* in northern China based on complete mitochondrial genomes Zhang Lei, et al. (964)
A molecular detection approach for assessing cotton aphid-primary parasitoid-hyperparasitoid food webs in Xinjiang, China Li Jinhua, et al. (970)
Cloning and expression analysis of four serine protease inhibitor genes in cotton bollworm *Helicoverpa armigera* Zhang Caihong, et al. (980)
Cloning, prokaryotic expression and spatio-temporal expression profiling of *BR-C Z2* gene in *Helicoverpa armigera* Hu Deqin, et al. (989)
Analysis of ABCA2 as a functional receptor for Cry2Ab in cotton bollworm *Helicoverpa armigera* Ei Thinzar Soe, et al. (999)
Identification and functional analysis of *Prx4* gene in cotton bollworm *Helicoverpa armigera* Tian Zhiqiang et al. (1008)
Identification and functional studies of nicotinic acetylcholine receptor $\alpha 7$ subunit in cotton bollworm *Helicoverpa armigera* Liu Shaokai, et al. (1016)
The expression pattern of *YTHDF1* in cotton bollworm *Helicoverpa armigera* and its role in the infection of nucleopolyhedrovirus Shen Zhongjian, et al. (1026)
The effects of ATP synthase subunit α on the toxicity of Cry2Ab to cotton bollworm *Helicoverpa armigera* Yao Xue, et al. (1034)
Expression analysis of cuticular protein genes *CP22* and *CP14* in cotton bollworm *Helicoverpa armigera* and their response to the sublethal dose of methoxyfenozide Zhang Wanna, et al. (1043)
Resistance of the pink bollworm *Pectinophora gossypiella* to Cry1Ac mediated by amino acid point mutation of cadherin Wu Huaiheng, et al. (1054)
The asymmetric responses of the cotton bollworm *Helicoverpa armigera* to global warming in different host crops Cui Hongying, et al. (1062)
Effects of cotton planting area and fragmentation on the abundance of cotton aphid *Aphis gossypii* Song Haiyan, et al. (1069)
Temporal and spatial dynamics of 5-hydroxytryptamine content in cotton and its effects on the growth and development of cotton bollworm *Helicoverpa armigera* Sun Peiyao, et al. (1075)
Predatory functional response of *Arma custos* (Hemiptera: Pentatomidae) to the larvae of *Helicoverpa armigera* (Lepidoptera: Noctuidae) Sun Jingjing, et al. (1081)
The effect of cold storage on the predation and fecundity of the predatory mite *Neoseiulus bicaudus* (Wainstein) Tang Siqiong, et al. (1088)
Construction of estimation models for the damage levels of cotton spider mites based on hyperspectral imaging of unmanned aerial vehicle (UAV) Guo Wei, et al. (1096)
Determination of resistance and cross-resistance to imidacloprid and sulfoxaflor in field populations of *Aphis gossypii* in China Li Ren, et al. (1104)
Toxicities of 21 pesticides against major cotton insect pests and their safety to variegated ladybird *Hippodamia variegata* in Xinjiang Huang Qingchao, et al. (1114)
Occurrence dynamics of major pests in cotton areas and the control techniques with botanical pesticides in the Hexi Corridor, China Zhang Xuan, et al. (1125)
Combined effects of nucleopolyhedrovirus and parasitoid *Microplitis mediator* on cotton bollworm *Helicoverpa armigera* Zha Meng, et al. (1139)
Effects of potato carboxypeptidases inhibitor combined with Cry1Ac toxin on protease activities and insecticidal activity against cotton bollworm *Helicoverpa armigera* Chen Wenbo, et al. (1147)
Effects of sublethal concentration of spinosad on the metabolism and physiology of cotton bollworm *Helicoverpa armigera* Song Yonghui, et al. (1156)
Regulation of emulsifier EL-40 on the control of cotton aphid *Aphis gossypii* at seedling stage with lambda-cyhalothrin microcapsules Wang Aiping, et al. (1164)
The effects of three acaricides on the growth, development and reproduction of the predatory mite *Neoseiulus bicaudus* offspring Su Jie, et al. (1175)

Notes

- Effects of different preys on development and fecundity of *Hippodamia variegata* (Goeze) Gu Huijie, et al. (1187)
The life table of Italian locust *Calliptamus italicus* in natural populations under fluctuating temperatures Chong Hainan, et al. (1189)
Infection characteristics of symbiotic bacteria of winged cotton aphid *Aphis gossypii* in Anyang, Henan, China Xu Weili, et al. (1191)
Imidacloprid application weakens the parasitism of endoparasitoid *Peristenus spretus* on green mirid bug *Apolygus lucorum* nymphs in cotton field Xia Shike, et al. (1193)