



ISSN 0529-1542
CN 11-1982/S

植物保护 Plant Protection

植物保护

Plant Protection

全国中文核心期刊
中国科技核心期刊
RCCSE中国核心学术期刊
CSCD来源期刊



(11010)第四十六卷第一期

Vol.46 No.2 Apr., 2020

ISSN 0529-1542



主办

中国植物保护学会
China Society of Plant Protection
中国农业科学院植物保护研究所
Institute of Plant Protection, CAAS

2
第46卷
2020年4月

目 次

特约稿件

中国草地贪夜蛾的防控策略 吴孔明(1)

专论与综述

农田土壤中的农药残留对农产品安全的影响研究进展 马 畅, 刘新刚, 吴小虎, 等(6)

研究报告

绿僵菌胞外蛋白酶 Pr1C 诱导飞蝗中肠免疫功能分析 郭隆隆, 李贝贝, 李 霜, 等(12)

大麦田草地贪夜蛾的发生为害及抽样技术 杨现明, 赵胜园, 姜玉英, 等(18)

烟粉虱 MEAM 1 隐种主要内共生菌的定位和分布 陈吉强, 张毅波, 张桂芬, 等(24)

中哈边境塔城区域迁飞性昆虫雷达观测研究初探 曹凯丽, 汪殊玥, 于冰洁, 等(30)

气候变化情景下四川省猕猴桃溃疡病菌潜在地理分布模拟 王茹琳, 刘 原, 李 庆, 等(38)

青海省樱桃叶斑病病原菌的分离与鉴定 刘 俏, 宁楠楠, 马永强, 等(48)

外源哌啶酸对丽蝇蛹集金小蜂生长发育及耐寒性的影响 高 飞, 李玉艳, 王曼姿, 等(56)

不同饲养温度对草地贪夜蛾过冷却点和体液冰点的影响 谢殿杰, 张 蕾, 程云霞, 等(62)

取食不同食物的草地贪夜蛾的过冷却点和结冰点 张 悅, 邓晓悦, 张雪艳, 等(72)

入侵川西高原的草地贪夜蛾虫源分析 邓晓悦, 张雪艳, 蒋春先, 等(78)

基于判别分析的玉米茎腐病发生程度预测模型 张家齐, 张 毅, 石 洁, 等(85)

番茄褪绿病毒侵染黄瓜的首次报道 王天旗, 史晓斌, 郑立敏, 等(91)

黄连中盐酸小檗碱的提取纯化及抑菌活性研究 屈 欢, 黄 雪, 王军节, 等(96)

贵州省余庆县茶褐枯病病原菌的鉴定 王 雪, 王 勇, 尹桥秀, 等(101)

澳洲坚果褐腐病的病原菌鉴定及生物学特性 蒋桂芝, 何双凌, 岳 海, 等(107)

解淀粉芽孢杆菌 B9601-Y2 对大白菜软腐病防治效果研究 崔文艳, 何朋杰, 杨丽娟, 等(112)

鸢尾种苗中截获的草莓滑刃线虫形态和分子鉴定 王 晨, 俞禄珍, 宋绍祺, 等(117)

基于 Bayes 判别法的马尾松毛虫一代、二代幼虫发生期的预报 钱广晶, 张书平, 宋学雨, 等(122)

茭白胡麻叶斑病病原菌分离与鉴定 黄婉琴, 李 勤, 覃章辉, 等(129)

生防菌剂多黏类芽孢杆菌对辣椒根际土壤细菌群落的影响 韩永琴, 陈新建, 罗路云, 等(135)

马铃薯块茎病原真菌拮抗菌株筛选及优良拮抗菌株鉴定 陈星伊, 崔凌霄, 杨成德, 等(143)

实验方法与技术

一种高效的镰刀菌接种体制备方法 谢淑娜, 郝俊杰, 李保叶, 等(148)

利用凝胶扩散法测定刺萼龙葵种子中 β -甘露聚糖酶的活性 赵丹丹, 杨 龙, 黄兆峰, 等(153)

蚜虫共生细菌多重 PCR 检测体系的建立 李 彤, 蒋月丽, 连红梅, 等(158)

基础知识

加强果树规范化采样和病毒检测, 降低潜隐和危险性病毒对我国苹

果产业的危害风险 董云浩, 谢吉鹏, 李梦菲, 等(164)

黄芪新害虫——黄芪根瘤象的鉴别特征 魏玉红, 罗进仓, 刘月英, 等(169)

草地贪夜蛾两种重要卵寄生蜂的鉴别及寄生行为 王竹红, 葛均青, 刘紫晶, 等(172)

草地螟幼虫和蛹的形态特征及雌雄鉴别方法 胡 敏, 程云霞, 张 蕾, 等(181)

研究简报

杏褪绿卷叶植原体新疆分离物 16S rDNA 基因克隆与序列分析 艾克热木·买买提, 韩 剑, 罗 明, 等(186)

成虫期补充不同营养对草地贪夜蛾繁殖力的影响 房 敏, 姚 领, 李晓萌, 等(193)

调查研究

我国人参产区灰霉病菌抗药性研究初报 刘 琨, 李 勇, 王 蓉, 等(196)

甘肃陇南中梁系列冬小麦品种抗条锈病性分析及利用 车 卓, 岳维云, 曹世勤, 等(199)

单植和混植香梨园梨小食心虫的种群动态 蒋世铮, 张文忠, 王俊燕(204)

广西草地贪夜蛾为害冬粉薯初报 周上朝, 栗圣博, 苏冉冉, 等(209)

草地贪夜蛾在江苏北部早播麦田的发生与防治 李艳朋, 李 猛, 刘鸿恒, 等(212)

草地贪夜蛾在云南元谋县青稞、燕麦、糜子田的发生为害特征 赵雪晴, 陈福寿, 尹艳琼, 等(216)

越南北部草地贪夜蛾发生情况调查 卢 辉, 唐继洪, 吕宝乾, 等(222)

新疆南部地区杏园蛀果害虫群落结构及防治药剂筛选 徐兵强, 宋 博, 阿布都克尤木·卡德尔, 等(226)

技术与应用

食诱剂与不同诱捕器结合使用对棉铃虫成虫诱捕效果的影响 修春丽, 李国平, 高 宇, 等(229)

杀菌剂和杀虫剂使用对玉米病虫害防治及效益分析 刘佳中, 李永强, 谢淑娜, 等(234)

烯啶虫胺对褐飞虱的亚致死效应 程世阳, 龚佑辉, 王福莲, 等(243)

生物食诱剂对山东省莒南县花生田夜蛾科成虫监测与诱杀效果的初步评价 卢亚菲, 阚海礼, 李丽莉, 等(248)

核型多角体病毒对玉米草地贪夜蛾的控制作用研究 张海波, 王风良, 陈永明, 等(254)

4 种不同性诱剂对玉米草地贪夜蛾诱集作用 车晋英, 陈 华, 陈永明, 等(261)

短管赤眼蜂和夜蛾黑卵蜂防治草地贪夜蛾田间竞争的初步评价 朱凯辉, 周金成, 张柱亭, 等(267)

5 种杀虫剂对青菜黄曲条跳甲的毒力测定及田间药效 陈 秀, 张正炜, 赵 莉, 等(272)

8 种药剂对紫花三叉白及主要害虫的田间防治效果 刘 棋, 董竞成, 成文章, 等(276)

有害生物动态

警惕南美番茄潜叶蛾 *Tuta absoluta* (Meyrick) 在中国扩散 张桂芬, 洗晓青, 张毅波, 等(281)

安徽发现草地贪夜蛾区别为害麦玉/麦豆轮作田小麦 任学祥, 胡本进, 苏贤岩, 等(287)

封面照片 南美番茄潜叶蛾 *Tuta absoluta*, a. 幼虫及为害状, b. 蛹, c. 成虫, d. 卵 张桂芬摄

书评广告 (289—292)

广 告 中保科技(封二); 中国植物保护学会(封三)

其 他 更正(121)

CONTENTS

Management strategies of fall armyworm (<i>Spodoptera frugiperda</i>) in China	WU Kongming(1)
Research progress in the impact of pesticide residues in farmland soil on agricultural product safety	MA Chang, LIU Xingang, WU Xiaohu, et al(6)
Immune analysis of <i>Locust migratoria</i> midgut induced by <i>Metarhizium anisopliae</i> extracellular protease Pr1C	GUO Longlong, LI Beibei, LI Shuang, et al(12)
Population occurrence and sampling technique of fall armyworm <i>Spodoptera frugiperda</i> in barley field	YANG Xianming, ZHAO Shengyuan, JIANG Yuying, et al(18)
Localization and distribution of the main endosymbionts in <i>Bemisia tabaci</i> MEAM 1	CHEN Jiqiang, ZHANG Yibo, ZHANG Guifen, et al(24)
Entomological radar observation of migratory insects in China-Kazakhstan border areas	CAO Kaili, WANG Shuyue, YU Bingjie, et al(30)
Analysis of geographical distribution of <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> in Sichuan under climate change	WANG Rulin, LIU Yuan, LI Qing, et al(38)
Isolation and identification of the pathogen causing leaf spot on cherry in Qinghai province	LIU Qiao, NING Nannan, MA Yongqiang, et al(48)
Effects of exogenous pipecolic acid on the development and cold tolerance of <i>Nasonia vitripennis</i>	GAO Fei, LI Yuyan, WANG Manzi, et al(56)
Effects of different feeding temperature on the supercooling points and freezing points of fall armyworm, <i>Spodoptera frugiperda</i>	XIE Dianjie, ZHANG Lei, CHENG Yunxia, et al(62)
Supercooling and freezing points of <i>Spodoptera frugiperda</i> feeding on different foods	ZHANG Yue, DENG Xiaoyue, ZHANG Xueyan, et al(72)
Source analysis of fall armyworm <i>Spodoptera frugiperda</i> (J. E. Smith) invaded Western Sichuan Plateau	DENG Xiaoyue, ZHANG Xueyan, JIANG Chunxian, et al(78)
Prediction model of corn stalk rot based on discriminant analysis	ZHANG Jiaqi, ZHANG Yi, SHI Jie, et al(85)
Cucumber (<i>Cucumis sativus</i>) is a new host for <i>Tomato chlorosis virus</i>	WANG Tianqi, SHI Xiaobin, ZHENG Limin, et al(91)
Purification and antifungal activity of berberine hydrochloride in Rhizoma Coptidis	QU Huan, HUANG Xue, WANG Junjie, et al(96)
Identification of the pathogen of tea brown blight in Yuqing county, Guizhou province	WANG Xue, WANG Yong, YIN Qiaoxiu, et al(101)
Identification and biological characteristics of the pathogen causing macadamia fruit brown rot	JIANG Guizhi, HE Shuangling, YUE Hai, et al(107)
Control effects of <i>Bacillus amyloliquefaciens</i> B9601-Y2 on soft rot of Chinese cabbage	CUI Wenyan, HE Pengjie, YANG Lijuan, et al(112)
Morphological and molecular identification of <i>Aphelenchoides fragariae</i> intercepted in seedlings of iris bulbs	WANG Chen, YU Luzhen, SONG Shaoyi, et al(117)
Forecast for the occurrence period of <i>Dendrolimus punctatus</i> larvae based on Bayes discriminant method for the first and second generations	QIAN Guangjing, ZHANG Shuping, SONG Xueyu, et al(122)
Isolation and identification of the pathogen causing leaf spot of <i>Zizania latifolia</i>	HUANG Wanqin, LI Qin, QIN Zhanghui, et al(129)
Effects of the biocontrol agent <i>Bacillus polymyxa</i> on the bacterial community in the rhizosphere of pepper	HAN Yongqin, CHEN Xinjian, LUO Luyun, et al(135)
Screening and identification of antagonistic bacterial strains against potato tuber pathogenic fungi	CHEN Xingyi, CUI Lingxiao, YANG Chengde, et al(143)
A high-efficiency method for production of uniform inoculum of <i>Fusarium</i>	XIE Shuna, HAO Junjie, LI Baoye, et al(148)

- Determination of endo- β -mannanase activity in seeds of *Solanum rostratum* by gel diffusion assay ZHAO Dandan, YANG Long, HUANG Zhaofeng, et al(153)
- Establishment of multiplex PCR detection system for symbiotic bacteria of aphids LI Tong, JIANG Yueli, LIAN Hongmei, et al(158)
- Reduction of the losses and risk of outbreaks caused by apple latent and dangerous viruses on China apple production by strengthening standard fruit tree sample collection and virus detection DONG Yunhao, XIE Jipeng, LI Mengfei, et al(164)
- Morphological characteristics of *Sitona simillimus* Korotyaev (Coleoptera, Curculionidae), an Astragalus new pest WEI Yuhong, LUO Jincang, LIU Yueying, et al(169)
- Identification of two parasitoid wasps of *Spodoptera frugiperda* egg and their parasitic behavior WANG Zhuhong, GE Junqing, LIU Zijing, et al(172)
- Methods for identification of the morphological character and sex of *Loxostege sticticalis* larvae and pupae (Lepidoptera: Crambidae) HU Min, CHENG Yunxia, ZHANG Lei, et al(181)
- Cloning and sequencing of 16S rDNA gene of the phytoplasma of apricot chlorotic leaf roll in Xinjiang AIKEREMU · Maimaiti, HAN Jian, LUO Ming, et al(186)
- Influence of different nutrition supplement in adult stage on reproductive capacity of *Spodoptera frugiperda* FANG Min, YAO Ling, LI Xiaomeng, et al(193)
- Preliminary report of the resistance of *Botrytis cinerea* isolates from ginseng producing area to four fungicides in China LIU Kun, LI Yong, WANG Rong, et al(196)
- Resistance analysis of Zhongliang winter wheat varieties to stripe rust in Longnan of Gansu province CHE Zhuo, YUE Weiyun, CAO Shiqin, et al(199)
- Population dynamics of *Grapholitha molesta* in mono- and mix-cultured pear orchard JIANG Shizheng, ZHANG Wenzhong, WANG Junyan(204)
- Preliminary report on the damage of *Spodoptera frugiperda* on *Maranta arundinacea* in Guangxi ZHOU Shangchao, LI Shengbo, SU Ranran, et al(209)
- Occurrence and control of *Spodoptera frugiperda* in early sowing wheat field in northern Jiangsu province LI Yanpeng, LI Meng, LIU Hongheng, et al(212)
- Occurrence and damage characteristics of *Spodoptera frugiperda* on highland barley, oat and prosomillet in Yuanmou county, Yunnan province ZHAO Xueqing, CHEN Fushou, YIN Yanqiong, et al(216)
- Investigation on the occurrence of *Spodoptera frugiperda* in the north of Vietnam LU Hui, TANG Jihong, LÜ Baoqian, et al(222)
- Community structure of fruit-boring insect pests in apricot orchards in southern Xinjiang and insecticide screening XU Bingqiang, SONG Bo, ABUDUKEYIM Kader, et al(226)
- Trapping efficacy of combined application of food attractants and different traps on *Helicoverpa armigera* moths XIU Chunli, LI Guoping, GAO Yu, et al(229)
- Effects and profitability of insecticide and fungicide applications for pest management in maize LIU Jiazhong, LI Yongqiang, XIE Shuna, et al(234)
- Sublethal effects of nitenpyram on performance of brown planthopper, *Nila parvata lugens* CHENG Shiyang, GONG Youhui, WANG Fulian, et al(243)
- Preliminary evaluation of the monitoring and trapping efficacy of biological food attractant on Noctuidae adults in peanut fields in Junan county, Shandong province LU Yafei, KAN Haili, LI Lili, et al(248)
- Study on the control effect of *Nucleopolyhedrovirus* on *Spodoptera frugiperda* ZHANG Haibo, WANG Fengliang, CHEN Yongming, et al(254)
- Trapping effect of four different sex attractants on *Spodoptera frugiperda* CHE Jinying, CHEN Hua, CHEN Yongming, et al(261)
- Preliminary evaluation of field competition between *Trichogramma pretiosum* and *Telenomus remus* in the control of *Spodoptera frugiperda* ZHU Kaihui, ZHOU Jincheng, ZHANG Zhuting, et al(267)
- Toxicity and field control efficacy of five insecticides against *Phyllotreta striolata* CHEN Xiu, ZHANG Zhengwei, ZHAO Li, et al(272)
- Field control efficacies of 8 pesticides to *Tetranychus cinnabarinus* and *Hypogastrura communis* on *Bletilla striata* LIU Qi, DONG Jingcheng, CHENG Wenzhang, et al(276)
- Warning of the dispersal of a newly invaded alien species, tomato leaf miner *Tuta absoluta* (Meyrick), in China ZHANG Guifen, XIAN Xiaoqing, ZHANG Yibo, et al(281)
- Fall armyworm, *Spodoptera frugiperda*, were found damaging difference between wheat-maize rotation and wheat-soybean rotation in Anhui province REN Xuexiang, HU Benjin, SU Xianyan, et al(287)