

江苏农业学报

第26卷 第3期 2010年6月30日

目次

遗传育种·耕作栽培·生理生化

高光效转玉米 *PEPC* 基因水稻激素含量与产量的关系

..... 李震 任承钢 王满 樊林杰 刘蔚 曹昆 王超 丛伟 周月兰 (449)

水稻单株产量与根系主要几何属性的定量关系 刘永霞 岳延滨 刘岩 曹宏鑫 葛道阔 魏秀芳 (456)

有序与无序田间配置对粳型超级稻沈农265产量及群体特征的影响

..... 张振宇 张文忠 党姝 韩亚东 赵明辉 徐正进 陈温福 (462)

外源NO供体硝普钠(SNP)对重金属Cd胁迫下水稻幼苗膜脂过氧化及抗氧化酶的影响

..... 赵宝泉 万宇 杨世湖 余丽 晋玉宽 万建民 (468)

陆地棉突变体腺体形成时期的基因表达谱

..... 陈敏 江明锋 蔡应繁 孙全 何晚红 江怀仲 谢永芳 莫剑川 高运玲

潘正 陈璐 伍婷玉 王玲 朱小燕 张锐 袁友禄 石玉真 (476)

油菜种子萌发期和形成期脂肪酶活性的动态变化 袁伟伟 谭小力 周佳 朱福各 胥峰 于莉莉 (482)

种植密度和留叶数对烤烟农艺性状及品质的影响 王付锋 赵铭钦 张学杰 关玉生 杜迎春 (487)

植物保护

二化螟不同地理种群遗传差异分析 杨凤霞 谢霖 王利华 方继朝 (493)

不同地理种群灰飞虱基于 *Co II* 基因的系统发育分析 季英华 史文琦 乐文静 刘莉 周益军 (499)

链格孢菌毒素细交链孢菌酮酸对空心莲子草叶片生理生化特性的影响

..... 周兵 闫小红 郭年梅 蒋平 钟娟 强胜 (503)

芜菁花叶病毒侵染对不结球白菜光合及荧光特性的影响 冯岩 侯喜林 马景蕃 杨学东 (508)

利用PCR技术专化性检测瓜类细菌性果斑病菌 田艳丽 胥婧 赵玉强 李新辉 胡白石 刘凤权 (512)

土壤肥料·资源环境

太湖地区规模奶牛场粪尿年产生量估算 朱宏鹤 常志州 叶小梅 杜静 石利利 (517)

畜牧兽医·水产养殖

猪肺炎支原体不同毒力株黏附因子基因序列分析 刘茂军 邵国青 张映 (522)

猪卵母细胞第1极体与核相对位置变化对去核率的影响 剧世强 郭慧利 林鹏飞 王利勤 芮荣 (526)

4种中药多糖体外抗猪伪狂犬病毒的作用研究 张红英 胡梅 夏平安 王学兵 魏战勇 崔保安 (532)

猪卵泡闭锁过程中颗粒细胞凋亡和 *Fas/FasL* 变化 张羽 林鹏飞 郝元斌 郭慧利 芮荣 (536)

微卫星技术分析猎豹遗传资源及亲缘关系

..... 孙强 谈智华 吴锋 许建中 徐春忠 文德亮 金晓军

吴昆 谢春雨 俞锦华 吴云良 林勇 赵伟 (541)

检测兔出血症病毒抗体间接 ELISA 方法的建立

.....	李超美	王芳	蔡少平	任雪枫	胡波	范志宇	徐为中	何孔旺	(546)
中国部分家鸭 PRL 基因内含子核苷酸多态性分析	宋卫涛	李慧芳	朱文奇	王强	韩威	徐文娟			(551)
舒巴坦、EDTA 对抗菌药物体外抗菌活性的影响	谷晓霞	刘建华	潘玉善	胡功政	刘保光	律海峡	王磊		(556)
基于无线传感网络的畜禽舍环境监控系统的设计与实现	王冉	徐本崇	魏瑞成	顾洪如	陈俊杰				(562)

园 艺

无籽西瓜茎尖不定芽诱导和增殖的影响因子	羊杏平	陈学好	张朝阳	叶小青					(567)
番茄可溶性固形物含量的主基因+多基因遗传分析	赵统敏	余文贵	杨玛丽	赵丽萍					(572)
黄瓜种子含油量的遗传研究	田友	司龙亭	李娜	李坤	马娟				(577)
以耐盐茄子为砧木的番茄嫁接苗的分析	邵翔	郭世荣	陈志贵	郭菊叶	朱红芳	朱为民			(583)
日光温室番茄叶温的模拟及与环境因子的关系	姚振坤	罗新兰	李天来	吕薇薇	李东	颜阿丹	仇家奇		(587)

加工贮藏·质量安全

延迟高 CO ₂ 气调处理下富士苹果的生理效应	李伟丽	张培培	李喜宏	李仲群	霍雨霞				(593)
桑蚕茧对枇杷和香蕉的保鲜作用	章伯元	谢立群	郁志芳	陈文煜					(597)
双酶水解麦胚制备抗氧化肽的工艺优化	张丽霞	顾振新	周剑忠	刘红锦	黄开红	蔡小峰			(601)
盐水鸭卤水中游离氨基酸含量的变化	李艳逢	杜垒	高菲菲	周光宏	徐幸莲				(607)
3 种发酵剂在羊奶干酪生产中应用效果的研究							任娟	张富新	(613)
低场 NMR 研究冻融过程中羊肉持水力的变化	戚军	高菲菲	李春保	徐幸莲	周光宏	杨培强	刘扬		(617)
烟叶中高效氟氟菊酯残留半定量 ELISA 检测方法的建立	刘媛	孙立荣	方敦煌	宋春满	余向阳	王冬兰	张存政	刘贤进	(623)
玉米中伏马毒素 FB ₁ 液相色谱-电喷雾串联质谱测定方法的建立	薛秋艳	徐剑宏	祭芳	史建荣					(627)
微囊藻毒素降解菌 EMB 分离鉴定及其降解特性	尹玉芬	胡梁斌	周威	杨静东	周益军	石志琦			(631)
三聚氰胺在蛋黄与蛋白中的残留	黄思瑜	魏瑞成	包红朵	王冉	金邦荃				(637)
微囊藻毒素多克隆抗体的纯化及 F(ab') ₂ 片段的制备				纪炜	刘媛	刘贤进			(641)

农业经济

农业科研投资对农业生产率增长效应的实证分析	李纪生	陈超	徐世艳						(645)
-----------------------------	-----	----	-----	--	--	--	--	--	-------

综 述

江苏省两系法杂交稻研究与生产								吕川根	(649)
----------------------	--	--	--	--	--	--	--	-----	-------

研究简报

机械精量穴直播技术对水稻产量与抗逆性的影响	刘小林	李就好	邹一平	郭诗静					(658)
玉米不同节间含糖量与全茎秆含糖量的关系	卞云龙	杜凯	王益军	邓德祥	程金荣				(661)
不同卤水复卤对盐水鸭风味的影响	谢伟	刘登勇	徐幸莲	周光宏					(664)
一株纤溶酶产生菌——蛹虫草的形态和分子鉴定	崔莉	董明盛	陈晓红	姜梅	李大婧	刘春泉			(667)
基于多传感器融合技术的苹果成熟度检测研究	刘鹏	屠康	苏子鹏	潘磊庆	刘明				(670)

JIANGSU JOURNAL OF AGRICULTURAL SCIENCES

Vol. 26 No. 3 June 30 2010

CONTENTS

CROP GENETICS AND BREEDING · FARMING AND CULTIVATION · PHYSIOLOGY AND BIOCHEMISTRY

- Relationship between Plant Hormone Contents and Yield in *PEPC* Transgenic Rice with High Photosynthesis Efficiency LI Xia, REN Cheng-gang, WANG Man, GONG Lin-jie, LIU Wei, CAO Kun, WANG Chao, CONG Wei, ZHOU Yue-lan (449)
- Quantitative Relationships between Main Geometric Properties of Root System and Individual Plant Yield in Rice LIU Yong-xia, YUE Yan-bing, LIU Yan, CAO Hong-xin, GE Dao-kuo, WEI Xiu-fang (456)
- Effect of Order and Disorder Field Arrangement Patterns on Yield and Population Characteristics of *Japonica* Super Rice Shemong ZHANG Zhen-yu, ZHANG Wen-zhong, DANG Shu, HAN Ya-dong, ZHAO Ming-hui, XU Zheng-jin, CHEN Wen-fu (462)
- Effects of Exogenous Nitric Oxide Donor SNP on Membrane Lipid Peroxidation and Activity of Antioxidative Enzyme in Rice Seedlings under Cd Stress ZHAO Bao-quan, WAN Yu, YANG Shi-hu, YU Li, JIN Yu-kuan, WAN Jian-min (468)
- Gene Expression Profiling during Morphogenesis of Gland in Upland Cotton Mutant CHEN Min, JIANG Ming-feng, CAI Ying-fan, SUN Quan, HE Xiao-hong, JIANG Huai-zhong, XIE Yong-fang, MO Jian-chuan, GAO Yun-ling, PAN Zheng, CHEN Jun, WU Ting-yu, WANG Ling, ZHU Xiao-yan, ZHANG Rui, YUAN You-lu, SHI Yu-zhen (476)
- Dynamic Change of Lipases Activity during Post-germinative Growth and Seed Development in *Brassica napus* YUAN Wei-wei, TAN Xiao-li, ZHOU Jia, ZHU Fu-ge, XU Feng, YU Li-li (482)
- Effect of Plant Density and Remained Leaves Number on Agronomic Traits and Quality of Flue-cured Tobacco WANG Fu-feng, ZHAO Ming-qin, ZHANG Xue-jie, GUAN Yu-sheng, DU Ying-chun (487)

PLANT PROTECTION

- Genetic Differences among Different Geographical Populations of *Chilo Suppressalis* in China YANG Feng-xia, XIE Lin, WANG Li-hua, FANG Ji-chao (493)
- Sequencing and Phylogenetic Analysis of *Co II* Gene in Different Populations of *Laodelphax striatellus* JI Ying-hua, SHI Wen-qi, LE Wen-jing, LIU Li, ZHOU Yi-jun (499)
- Physiological Effects of Tenuazonic acid from *Alternaria alternata* on *Alternanthera philoxeroides* Leaves ZHOU Bing, YAN Xiao-hong, GUO Nian-mei, JIANG Ping, ZHONG Juan, QIANG Sheng (503)
- Effects of Turnip Mosaic Virus (TuMV) Infection on Photosynthetic and Fluorescent Characteristics of Non-heading Chinese Cabbage FENG Yan, HOU Xi-lin, MA Jing-fan, YANG Xue-dong (508)
- Specific Detection of *Acidovorax avenae* subsp. *citrulli* by PCR TIAN Yan-li, XU Jing, ZHAO Yu-qiang, LI Xin-hui, HU Bai-shi, LIU Feng-quan (512)

SOIL FERTILIZER · RESOURCE AND ENVIRONMENT

- Estimate of Annual Excretion in a Large-scale Cattle Farm in Taihu District ZHU Hong-hu, CHANG Zhi-zhou, YE Xiao-mei, DU Jing, SHI Li-li (517)

ANIMAL HUSBANDRY AND VETERINARY SCIENCES · AQUICULTURE

- Sequence Analysis of Adhesin Gene of Different *Mycoplasma hyopneumoniae* Strains LIU Mao-jun, SHAO Guo-qing, ZHANG Ying (522)
- Effect of Relative Location between the First Polar Body and Nucleus on Enucleation Efficiency of Porcine Oocytes JU Shi-qiang, GUO Hui-li, LIN Peng-fei, WANG Li-qin, RUI Rong (526)
- Inhibition of Four Chinese Herbal Polysaccharides to Pseudorabies Virus *in vitro* ZHANG Hong-ying, HU Mei, XIA Ping-an, WANG Xue-bing, WEI Zhan-yong, CUI Bao-an (532)
- Fas* and *FasL* Ligand Expression and Apoptosis of Granulosa Cells during Follicular Atresia in Swine ZHANG Yu, LIN Peng-fei, HAO Yuan-bin, GUO Hui-li, RUI Rong (536)
- Analysis of Genetic Resource and Relationship of *Acinonyx jubatus* by Microsatellite Loci SUN Qiang, TAN Zhi-hua, WU Feng, XU Jian-zhong, XU Chun-zhong, WEN De-liang, JIN Xiao-jun, WU Kun, XIE Chun-yu, YU Jin-hua, WU Yun-liang, LIN Yong, ZHAO Wei (541)
- An Indirect ELISA for Detection of Antibodies against Rabbit Hemorrhagic Disease Virus LI Cao-mei, WANG Fang, CAI Shao-ping, REN Xue-feng, HU Bo, FAN Zhi-yu, XU Wei-zhong, HE Kong-wang (546)

- Analysis of Single Nucleotide Polymorphism on Prolactin (*PRL*) Gene Intron of Ducks
 SONG Wei-tao, LI Hui-fang, ZHU Wen-qi, WANG Qiang, HAN Wei, XU Wen-juan (551)
- Influence of Sulbactam and EDTA on Antimicrobial Activity of Antimicrobial Drugs *in vitro*
 GU Xiao-xia, LIU Jian-hua, PAN Yu-shan, HU Gong-zheng, LIU Bao-guang, LU Hai-xia, WANG Lei (556)
- Design and Implementation of an Intelligent Environmental Monitoring System for Animal House Based on Wireless Sensor Net (WSN)
 WANG Ran, XU Ben-chong, WEI Rui-cheng, GU Hong-ru, CHEN Jun-jie (562)

HORTICULTURE

- Factors Affecting Adventitious Bud Induction and Proliferation of Seedless Watermelon
 YANG Xing-ping, CHEN Xue-hao², ZHANG Chao-yang, YE Xiao-qing (567)
- Genetic Analysis of Soluble Solid Content Using Mixed Major Gene Plus Polygenes Inheritance Model in Tomato
 ZHAO Tong-min, YU Wen-gui, YANG Ma-li, ZHAO Li-ping (572)
- Inheritance of Seed Oil Content in Cucumber TIAN You, SI Long-ting, LI Na, LI Kun, MA Juan (577)
- Analysis of Tomato Seedlings Grafted with Salt Tolerance Eggplant Rootstock
 TAI Xiang, GUO Shi-rong, CHEN Zhi-gui, GUO Ju-ye, ZHU Hong-fang, ZHU Wei-min (583)
- A Simulation Model of the Relationship between Tomato Leaf Temperature and Ambient Factors in Solar Greenhouse
 YAO Zhen-kun, LUO Xin-lan, LI Tian-lai, LÜ Wei-wei, LI Dong, YAN A-dan, QIU Jia-qi (587)

PROCESSING AND STORAGE · QUALITY SAFETY

- Physiological Response of Fuji Apples to Delayed High-CO₂ Treatments ... LI Wei-li, ZHANG Pei-pei, LI Xi-hong, LI Zhong-qun, HUO Yu-xia (593)
- Silkworm Cocoon as a Preservative in the Storage of Loquat and Banana Fruits
 ZHANG Bo-yuan, XIE Li-qun, YU Zhi-fang, CHEN Wen-xuan (597)
- Optimization of Preparation of Wheat Germ Antioxidant Peptides with Two Enzymes
 ZHANG Li-xia, GU Zhen-xin, ZHOU Jian-zhong, LIU Hong-jin, HUANG Kai-hong, GONG Xiao-feng (601)
- Changes of Free Amino Acid Contents in the Brine of Water Boiled Salted Duck
 LI Yan-feng, DU Lei, GAO Fei-fei, ZHOU Guang-hong, XU Xing-lian (607)
- Application Effects of Three Ferments in Goat Cheese Production REN Juan, ZHANG Fu-xin (613)
- Changes of Water Holding Capacity of Mutton during Freeze-thaw Cycles by a Low Field Nuclear Magnetic Resonance
 QI Jun, GAO Fei-fei, LI Chun-bao, XU Xing-lian, ZHOU Guang-hong, YANG Pei-qiang, LIU Yang (617)
- Establishment of a Semi-quantitative ELISA Detection Method for Lambda-cyhalothrin Residue in Tobacco
 LIU Yuan, SUN Li-rong, FANG Dun-huang, SONG Chun-man, YU Xiang-yang, WANG Dong-lan, ZHANG Cun-zheng, LIU Xian-jin (623)
- Establishment of High Performance Liquid Chromatography-electrospray Ionization Tandem Mass Spectrometry for Detecting Fumonisin B₁ in Maize
 XUE Qiu-yan, XU Jian-hong, JI Fang, SHI Jian-rong (627)
- Identification and Characterization of Microcystin-degrading Strain EMB
 YIN Yu-Fen, HU Liang-Bin, ZHOU Wei, YANG Jing-Dong, ZHOU Yi-Jun, SHI Zhi-Qi (631)
- Distribution of Melamine Residues in Egg White and Yolk of Laying Hens
 HUANG Si-yu, WEI Rui-cheng, BAO Hong-duo, WANG Ran, JIN Bang-quan (637)
- Purification of Polyclonal-antibodies against Microcystin-LR and Preparation of F(ab')₂ Fragments
 JI Wei, LIU Yuan, LIU Xian-jin (641)

AGRICULTURAL ECONOMICS

- Effect of Agricultural Research Expenditure on Agricultural Productivity Growth by An Empirical Analysis
 LI Ji-sheng, CHEN Chao, XU Shi-yan (645)

REVIEW

- Status and Countermeasures for Research and Production of Two-line Hybrid Rice in Jiangsu Province LÜ Chuan-gen (649)

BRIEF REPORTS

- Effects of Mechanical Precisely Direct Seeding Technique on Yield and Stress Resistance of Rice
 LIU Xiao-lin, LI Jiu-hao, ZOU Yi-ping, GUO Shi-jing (658)
- Relationship between Individual Internodes and Whole Stalk on Sugar Content in Maize
 BIAN Yun-long, DU Kai, WANG Yi-jun, DENG De-xiang, CHENG Jin-rong (661)
- Effect of Repeated Brining on Flavor of Water Boiled Salted Duck XIE Wei, LIU Deng-yong, XU Xing-lian, ZHOU Guang-hong (664)
- Morphological and Molecular Identification of a *Cordyceps militaris* Producing Thrombolytic Enzyme
 CUI Li, DONG Ming-sheng, CHEN Xiao-hong, JIANG Mei, LI Da-jing, LIU Chun-quan (667)
- Non-destructive Detection of Apple Ripeness Based on Multi-sensor Amalgamation Technology
 LIU Peng, TU Kang, SU Zi-peng, PAN Lei-qing, LIU Ming (670)