

ISSN 1000-7091



华北农学报

ACTA AGRICULTURAE BOREALI-SINICA

■ 中国精品科技期刊 ■ 中文核心期刊 ■ 中国科学引文数据库核心期刊 ■
■ 中国科技核心期刊 ■ 中国农业核心期刊 ■ RCCSE中国核心学术期刊 ■

2012 第27卷 第3期
Vol. 27 No. 3

华北农学报编辑部



目 次

大豆 <i>GmHKT6</i> ;2 基因的克隆与表达特性分析	陈华涛,陈 新,顾和平,陈满峰,张红梅,袁星星,崔晓艳(1)
甘蓝型油菜 <i>BnCOP9</i> 基因的克隆及其环境信号响应分析	王 政,谭小力,张志燕,顾守来,李冠英,陈 宇(6)
亚麻 <i>MS2-F</i> 基因的 RNAi 表达载体构建	斯钦巴特尔,张 辉,贾霄云,高风云,张立华,任龙梅(12)
烟草 3 个甜菜碱脱氢酶基因的克隆及序列分析	林世锋,任学良,王 轶,王东茂,张 拓,王仁刚(17)
大豆苹果酸脱氢酶基因的电子克隆与生物信息学分析	李文爽,刘 渊,常文锁,刘梦星,李喜焕(23)
大豆体细胞胚胎发生再生体系的建立与优化	雷海英,武 攀,贾彦琼,王 玺,李 莉(29)
农杆菌介导大豆不同外植体遗传转化研究	刘 翠,李喜焕,常文锁,张春峰,张彩英(35)
谷子弯孢病菌 <i>Clnk-1</i> 基因克隆和初步分析	李志勇,郝志敏,刘 磊,董志平,董金皋(41)
寿光地区感病辣椒 TYLCV 的分子鉴定和病毒 DNA-A 序列分析	刘春香,刘彩云,李会平,曹 京(46)
黄瓜黄色子叶突变体遗传及相关 AFLP 标记	王惠哲,李淑菊,杨瑞环,管 炜(50)
火把梨 <i>14-3-3</i> 基因的克隆与序列分析	王光勇,刘迪秋,李 旻,饶 健,孙兵召,丁元明(55)
梨茎尖中 <i>PpKO</i> 基因表达量的实时荧光定量 PCR 分析	田义轲,李节法,王彩虹,殷 豪,白牡丹(62)
水分胁迫柠条锦鸡儿叶片均一化全长 cDNA 文库的构建及 EST 分析	郭九峰,孙国琴,乔慧蕾(67)
<i>MC4R</i> 与 <i>Leptin</i> 、 <i>MC3R</i> 和 <i>CCKAR</i> 基因的互作研究	张冬杰,汪 亮,刘 娣(72)
建鲤 <i>IGFBP1</i> 基因的克隆及与增重相关的 SNP 位点分析	魏可鹏,俞菊华,李红霞,李建林,唐永凯,夏正龙(75)
绵羊 <i>MSTN</i> 基因启动子区 SNPs 分析	贺三刚,陈 芯,刘晨曦,刘国松,刘明军(81)
猪 <i>SLA-DQA</i> 基因外显子 4 多态性分析	孔晶晶,滚双宝,杨巧丽,王国旺,刘丽霞,李峰松,姜天团,封 洋,赵生国(86)
梅花 <i>PmCBF</i> 基因的克隆及表达	张 杰,杨炜茹,郝瑞杰,张启翔(91)
沙冬青脱水素基因转化紫花苜蓿的研究	聂利珍,郭九峰,孙 杰,孙国琴,刘永志(96)
简化一步多重 RT-PCR 法快速检测芜菁花叶病毒	曾 钢,叶艳英,闫晓红,马荣才,唐乐尘,姚 磊(102)
高粱微卫星分析中遗传完整性样本量的确定	许玉凤,朱远英,张志娥,卢新雄(108)
巴美肉羊 <i>INHA</i> 和 <i>INHBA</i> 基因多态性与产羔数关系研究	索 峰,刘永斌,特日格勒,祁云霞,何小龙,韩有胜,张 莉,李虎山,荣威恒(115)
类猪圆环病毒因子 P1 核酸链型和极性的研究	温立斌,何孔旺,倪艳秀,张雪寒,李 彬,王小敏,郭容利,周俊明,俞正玉,茅爱华,吕立新(120)
口服 O157:H7 ($\Delta hly\Delta stx\Delta toxB$) 能够减少 O157:H7 在羊体内的定殖	张雪寒,何孔旺,俞正玉,茅爱华(123)
一株 <i>Agaricus</i> 属野生菌的分离与鉴定	尹永刚,刘 宇,许 峰,赵 爽,黄仕海,王守现,耿小丽(126)
CO ₂ 加富下空气湿度调控对高温大棚嫁接黄瓜逆境生理的影响	刘杰才,崔世茂,吴玉峰,其日格,霍秀文,杨文秀,付崇毅,王玉静(130)
NaCl 及等渗 PEG 胁迫对番茄叶片光合特性及蔗糖代谢的影响	鲁少尉,齐 飞,李天来(136)
土壤容重对高产玉米根系生长的影响及调控研究	郑存德,依艳丽,张大庚,徐龙超(142)
3 种质地土壤上 As 胁迫对小麦灌浆期旗叶光合特性的影响	邵 云,王钰亮,王小洁,姜丽娜,刘会娟,李春喜(150)
低温胁迫下籽用西瓜幼苗生理变化与耐冷性的研究	杨 燕,王 萍,赵清岩,张 岩(156)
豌豆灌浆期叶片抗氧化系统对土壤水分变化的响应	闫志利,牛俊义,席玲玲,周海燕,蒋 娟(161)
冀西北高寒半干旱区不同萝卜品种的生长发育特性比较	张 阔,孙志梅,王 平,柴建明,马文奇(167)
3 种农药对烤烟旺长期叶绿素含量及相关酶活性的影响	刘鹏飞,段宾宾,赵铭钦,李元实,韩富根(173)
盐碱胁迫对枸杞生长及根际适应能力的影响	付任胜,尹立荣,陈 磊,孙 鹏,管长志(177)
接种 AM 真菌对烤烟生长、营养及抗旱性的影响	周 霞,梁永江,张长华,陈小明,黄建国(181)
转 <i>PuP5CS</i> 基因烟草对低温胁迫的生理响应	徐 博,任 伟,徐安凯,王志锋,孙启忠(186)
外源水杨酸对冷藏鸭梨呼吸电子传递链的影响	赵明新,孙文泰,张江红,李红旭,张玉星(191)
水氮调控对小麦植株干物质积累、分配与转运的影响	董 剑,赵万春,高 翔,陈其校,王军卫(196)
温室种植年限对山西石灰性土壤磷含量及无机磷形态的影响	王劲松,焦晓燕,王立革,董二伟(203)
苗期剪叶次数对烤烟大田生长氮代谢的影响	邓世媛,谢文婷,罗福命,王 维,王 俊,陈建军,凌寿军,肖兴强(208)
两种磷源与水平对 3 月龄獭兔饲养性能与养分利用的影响	李清宏,张亚强,叶志远,王保军(213)
西门塔尔牛 <i>bLF-exon11</i> 基因多态性及其与乳房炎易感性和部分乳性状的相关分析	王国富,吴慧光,孙国权,李俊雅,高 雪,王景山,王玉泉,高树新(218)
大豆胞囊线虫 VIGS 载体的构建与鉴定	张 怡,阮九霄,马晓萌,傅露露,乔月娥,段素娟,孟 博,李成伟(223)
东北地区玉米大斑病菌生理分化研究	张秀霞,高增贵,周晓锐,张 硕,周艳波(227)
小麦植株中啉虫肽残留的气相色谱分析方法的建立	李广领,王建华,陈锡岭,武予清,李金丽,肖娜娜(231)
不同类型烟草常规化学成分与中性致香物质含量分析	赵晓丹,史宏志,钱 华,杨兴有,靳冬梅,王瑞云,杨园园(234)



CONTENTS

Cloning and Expression Pattern Analysis of <i>GmHKT6;2</i> in Soybean	CHEN Hua-tao <i>et al</i> (1)
Cloning and Response to Environmental Cues of <i>BnCOP9</i> from <i>Brassica napus</i>	WANG Zheng <i>et al</i> (6)
Construction of RNAi Vectors of Flax Male Sterility Related <i>MS2-F</i> Gene	SIQIN Bateer <i>et al</i> (12)
Cloning and Sequence Analysis of Three Betaine Aldehyde Dehydrogenase Genes in Tobacco (<i>Nicotiana Tabacum</i>)	LIN Shi-feng <i>et al</i> (17)
<i>In Silico</i> Cloning and Bioinformatics Analysis of <i>GmMDH1</i> Gene in Soybean (<i>Glycine max.</i> L)	LI Wen-shuang <i>et al</i> (23)
Establishment and Optimization of Regeneration System from Somatic Embryogenesis in Soybean	LEI Hai-ying <i>et al</i> (29)
Studies of <i>Agrobacterium</i> -mediated Genetic Transformation by Different Explants in Soybean (<i>Glycine max.</i> L)	LIU Cui <i>et al</i> (35)
Molecular Cloning and Preliminary Analysis of <i>Clmk-1</i> Gene in <i>Cochliobolus lunatus</i>	LI Zhi-yong <i>et al</i> (41)
Molecular Identification and DNA-A Gene Sequence Analysis of Tomato Yellow Leaf Curl Virus on Pepper (<i>Capsicum annuum</i>) in Shouguang Region	LIU Chun-xiang <i>et al</i> (46)
Genetic Analysis and AFLP Markers Associated to the Yellow Cotyledon Trait in Cucumber	WANG Hui-zhe <i>et al</i> (50)
Isolation and Expression Analysis of a <i>14-3-3</i> Gene from <i>Pyrus pyrifolia</i> Nakai cv. Huobali	WANG Guang-yong <i>et al</i> (55)
Expression Analysis of <i>PpKO</i> Gene in Pear Shoots Apical Tissue by Real-time Fluorescent Quantitative PCR	TIAN Yi-ke <i>et al</i> (62)
Construction and EST Analysis of a Normalized Full-Length cDNA Library from Water Stressed Korshinsk Peashrub Leaves	GUO Jiu-feng <i>et al</i> (67)
The Interaction of <i>MC4R</i> with <i>Leptin</i> , <i>MC3R</i> and <i>CCKAR</i> Genes	ZHANG Dong-jie <i>et al</i> (72)
Isolation of <i>IGFBP1</i> and SNP Loci Related to Body Weight Gain in <i>Cyprinus carpio</i> var. <i>jian</i>	WEI Ke-peng <i>et al</i> (75)
Analysis of SNPs in Promoter Region of Myostatin in sheep	HE San-gang <i>et al</i> (81)
Analyzing Polymorphism of <i>SLA-DQA</i> Gene exon4	KONG Jing-jing <i>et al</i> (86)
Cloning and Expression of <i>PmCBF</i> Gene from <i>Prunus mume</i>	ZHANG Jie <i>et al</i> (91)
Research on Transformation of <i>DHN</i> Gene from <i>Ammopiptanthus mongolicus</i> into Alfalfa (<i>Medicago sativa</i> L.)	NIE Li-zhen <i>et al</i> (96)
Quick Detection of Turnip Mosaic Virus by One-Step Multiple RT-PCR	ZENG Gang <i>et al</i> (102)
Determination of the Sample Size in Sorghum (<i>Sorghum bicolor</i> L. Moench.) Genetic Integrity Analysis with Microsatellites	XU Yu-feng <i>et al</i> (108)
Association of <i>INHA</i> and <i>INHBA</i> Genes Polymorphism with Prolificacy of Bamei Mutton Sheep	SUO Feng <i>et al</i> (115)
Studies on the Nucleic Acid Strandedness and Polarity of Porcine Circovirus-like Agent P1	WEN Li-bin <i>et al</i> (120)
Oral Inoculation with O157:H7 ($\Delta hly\Delta stx\Delta toxB$) Leads to Decreased Shedding in Goats after Challenge with <i>Escherichia coli</i> O157:H7	ZHANG Xue-han <i>et al</i> (123)
Isolation and Identification for a Wild Fungus of Genus <i>Agaricus</i>	YIN Yong-gang <i>et al</i> (126)
The Effect of Air Humidity on the Stress Physiology of the Grafted Cucumber in High Temperature Plastic Tunnel under CO ₂ Enrichment	LIU Jie-cai <i>et al</i> (130)
Effect of NaCl and PEG Iso-osmotic Stresses on Photosynthetic Characteristics and Sucrose Metabolizing in Tomato Leaf	LU Shao-wei <i>et al</i> (136)
Effects of Bulk Density on Root Growth of High Yield Maize and Their Regulation	ZHENG Cun-de <i>et al</i> (142)
Effects of Arsenic Stress on Growth and Photosynthetic Characteristics of Wheat during Filling Stage in Three Textures of Soil	SHAO Yun <i>et al</i> (150)
Study on Relationship between Physiological Changes and Chilling Tolerance in Seed-used Watermelon Seedling under Low-temperature Stress	YANG Yan <i>et al</i> (156)
Response of Pea Leaves Antioxidant System to Soil Water in Filling Stage	YAN Zhi-li <i>et al</i> (161)
Comparative Studies on Growth Characteristics of Different Radish Varieties in the Northwest area of Hebei Province	ZHANG Kuo <i>et al</i> (167)
Impact of Three Kinds of Pesticides on Period Chlorophyll Content and Related Enzyme Activities in Tobacco Rapid Growth	LUI Peng-fei <i>et al</i> (173)
Effect of Alkali-saline Stress on Growth and Adaptive Capacity to Rhizosphere of <i>Lycium chinense</i> Mill	FU Ren-sheng <i>et al</i> (177)
Effects of Arbuscular Mycorrhizal Fungi on Growth, Nutrition and Drought Resistance of Flue-cured Tobacco Seedlings	ZHOU Xia <i>et al</i> (181)
Physiological Responses to Chilling Stress in Transplastomic Tobacco with <i>PuP5CS</i> Gene	XU Bo <i>et al</i> (186)
Effect of Exogenous Salicylic Acid Treatment on Respiratory Chain of Ya-li Pears Stored at a Low Temperature	ZHAO Ming-xin <i>et al</i> (191)
Effects of Irrigation and Nitrogen Control on Accumulation, Distribution and Transport of Dry Matter of Wheat Plant	DONG Jian <i>et al</i> (196)
Changes of Calcareous Soil P Stocks and Inorganic P Fractions of Solar Greenhouse with Planting Term in Shanxi	WANG Jin-song <i>et al</i> (203)
Effects of Clipping Times in Seedling Stage on Nitrogen Metabolism during Growth Phase in Field of Flue-cured Tobacco	DENG Shi-yuan <i>et al</i> (208)
Influence of Level and Source with P on Growth Performance, Nutrient Utilization Efficiency of 3 Month Rex Rabbit	LI Qing-hong <i>et al</i> (213)
Association Analysis of Polymorphism in the Bovine <i>Lactoferrin</i> Gene <i>Exon11</i> with the Susceptibility to Mastitis and Part Milk Trait in Simmental Cattles	WANG Guo-fu <i>et al</i> (218)
Identification and Construction of the Recombinant Vector of Virus Induced Gene Silencing of Soybean <i>Heterodera glycines</i> Ichinohe	ZHANG Yi <i>et al</i> (223)
Identification of Physiological Races of <i>Exserohilum turcicum</i> in Northeastern China	ZHANG Xiu-xia <i>et al</i> (227)
Determination of Acetamiprid Residues in Wheat Plants by GC-NPD	LI Guang-ling <i>et al</i> (231)
Comparison of Composition and Contents of Chemical Component and Neutral Aroma Components in Different Types of Tobacco	ZHAO Xiao-dan <i>et al</i> (234)