

西南农业学报
2010年 第23卷 第3期
目 次

作物遗传育种·种质资源

- 613 不同大麦品种(系)营养功能成分差异比较 赵春艳,曾亚文,普晓英,杨树明,
杜娟
- 619 甘薯 ADP-葡萄糖焦磷酸化酶两个 α 亚基基因的克隆分析和植物 表达载体的构建 张 聰,郑雪莲,蒲志刚,吴 洁,
王大一,闻文昭
- 625 烤烟新品种“云烟 203”的选育及特征特性 焦芳婵,肖炳光,李永平,张谊寒,
于海芹,卢秀萍

耕作栽培·生理生化

- 629 冬水田杂交中稻栽秧密度与方式互作对头季稻及再生稻生长的影响 徐富贤,范青华,陈应平,陈昌荣,
陈定素,曾静成,陈祖君,张 林,
刘 茂,周兴兵,郭晓艺,熊 洪,
朱永川
- 636 四川水稻丰产科技工程主推技术模式及应用效果 喻春莲,任光俊,池忠志,郑家国,
杨文钰,刘代银,陶诗顺,任万军
- 641 覆盖与底墒对丘陵旱地小麦产量与水分利用的影响 刘定辉,庞良玉,陈尚洪,舒 丽,
张玉兰
- 644 转基因棉籽壳栽培毛木耳的安全性评价初报 余梦瑶,郑林用,许晓燕,江 南,
魏 婉,罗 霞
- 650 广西南部宿生陆地棉的生长发育规律研究 陈国平,张 新,周瑞阳,赵洪涛
- 656 凉山烟区红花大金元采收适宜成熟度研究 刘健康,郭群召,薛剑波
- 660 马铃薯脱毒组培苗繁殖效率分析研究 王克秀,何 卫,胡建军,陈萍萍,
唐铭霞,牟文平,杨 麟,白金达,
卢跃华

- 665 滇中地区作物生长旺季农业气候变化研究 黄中艳
- 670 峨眉山绿茶儿茶素组分含量变化分析 李倩,王玉,丁兆堂,张新富
- 674 不同抗旱措施对油桃采果期叶片生理活性指标的影响 涂美艳,江国良,杜晋城,廖明安,
陈栋,谢红江,李靖,孙淑霞
- 679 泸州烟区烤烟化学成分与国内外其它烟区的比较分析 宋文峰,刘国顺,金一兵,邓明智,
李霞,罗定棋,张永辉,雷晓,
谢强
- 685 烤烟类胡萝卜素含量的产地、品种与部位差异性分析 付亚丽,李宏光,苏勇,王超,
周黎
- 690 蔗糖及天然有机物对银杏愈伤组织合成黄酮的影响 胡燕梅,郭云贵,蒋细旺,余群娣,
崔鹏
- 694 石蒜属植物忽地笑的光合特性研究 全妙华,陈东明,何吉
- 700 “紫娟”茶外观表象差异研究 蔡丽,梁名志,夏丽飞,陈林波,
孙云南
- 704 三七种子后熟期的生理生化动态研究 I. 不同贮存条件对种子活力的影响 崔秀明,安娜,黄璐琦,段承例,
萧凤回
- 707 高温胁迫对绿豆下胚轴生长和抗热性物质的影响 田学军,罗晶,罗冰
- 710 六种植物生长调节剂(组合)在南方地区淮山药上的应用筛选初报 温国泉,文成中,莫江妮
- 714 稼秆纤维素分解真菌产酶条件优化及高酶活突变株诱变选育 付传明,何金祥,黄宁珍,何成新,
周浩,王新桂

植物保护·土壤肥料·土地规划

- 719 粽稻 IR75288-38-3-1 抗螟虫分析及育种利用研究 李永洪,谢戎,刘成元,向雨,
罗婧,朱永川
- 724 水稻遗传多样性栽培控制稻瘟病的灰色评价 何汉明,房辉,周惠萍,谢勇,
刘林,冯建孟,李成云,朱有勇
- 728 西南地区主要粉虱害虫的分布与危害 刘曼,王济红,任春光,向准,
姚松林
- 735 绿色木霉 L24 菌株防治玉米丝黑穗病的研究 张敏,杨春平,仇波,谢津,
陈华保,龚国淑,杨继芝
- 739 抗玉米丝黑穗病品种鉴定及抗性机制初探 杨春平,田双梅,周苗苗,叶雪玲,
陈华保,龚国淑,张敏

744	性诱剂对烟田 3 种主要鳞翅目害虫诱虫效果的初步研究	张翠萍, 杨硕媛, 杨璧愫, 杨松
747	四川马铃薯晚疫病生理小种鉴定及品种抗病评价	刘波微, 彭化贤, 席亚东, 何俊蓉
752	番木瓜炭疽病病原菌鉴定及生物学特性研究	何凡, 范鸿雁, 罗霓, 陶挺燕
756	云南几种兰花菌根真菌的分离鉴定	段春芳, 李桂林, 方飞, 杨根华, 陈思思, 洪群艳
760	一株桑椹致病菌的鉴定及其生物学特性研究	贺磊, 胡军华, 徐立, 姚廷山, 冉春, 李鸿筠, 刘浩强, 雷慧德
764	GC-ECD 法测定茶叶中 30 种有机氯及菊酯类农药残留	杨晓凤, 谢淋, 韩梅, 易盛国
768	四川重要药用植物害虫种类名录	严吉明, 杨群芳, 叶华智, 李庆, 蒋素容
772	不同水分管理方式下 3 种中微量元素肥料对水稻生长和吸收镉的影响	胡坤, 喻华, 冯文强, 秦鱼生, 蓝兰, 廖鸣兰, 王昌全, 涂仕华
777	攀枝花钒钛磁铁矿区土壤重金属污染特征及评价	周娅, 杨定清, 谢永红, 王棚
782	施用沼肥对枣园土壤养分含量的影响	柴仲平, 王雪梅, 孙霞, 蒋平安, 高敏
786	贡柑叶片的矿质营养及其对果实品质影响的研究	吉前华, 郭雁君, 姚金明, 何锦洪
791	重庆市永川茶园土壤肥力考评	徐泽, 阮建云, 李中林, 马立峰, 邓敏, 邬秀宏
796	基于 DEM 的阳江农场地形特征信息提取与分析	王博, 张培松, 罗微

园艺

801	普洱茶生茶抗疲劳作用研究	黄业伟, 邵宛芳, 冷丽影, 张冬英
805	茎瘤芥(榨菜)对播种期的响应及其筛选研究	刘义华, 张召荣, 冷蓉, 李娟
810	应用形态学与 RAPD 标记对朝天椒遗传多样性的分析	蒋向辉, 余朝文, 许栋, 张青桦, 赵旺
814	黄绿木霉 T1010 对亚低温胁迫下日光温室番茄内源激素的调控 效应	陈为京, 李润芳, 杨焕明, 陈建爱
819	番茄自毒物质对土壤养分的影响	张恩平, 衣宁宁, 李亮亮, 李天来, 刘勇
824	以多胚品种“红江橙”为母本的杂交及幼胚离体培养研究	魏旭, 韩国辉, 向素琼, 汪卫星, 李晓林, 梁国鲁
828	高产甘蔗的植物营养特征研究	谢如林, 谭宏伟, 黄美福, 周柳强, 黄金生, 黄献华, 曾艳, 杨瑞青, 董文斌, 王磊

832	低温及干旱胁迫对槟榔幼苗生理生化特性的影响	曹红星,冯美利,孙程旭,陈思婷, 陈良秋,王贵美
836	CaCl_2 处理对火龙果低温贮藏期品质的影响	王彬,郑伟,何绪晚,邓仁菊, 彭玉基,周俊良
841	紫苏属植物主要农艺性状与单株籽粒产量的相关和通径分析	蔡乾蓉,吴卫,杨文婷
847	宿根花卉在昆明绿地中的应用	朱勇,张英,袁冬梅,张雷
852	特色植物在昆明世博园中国园区的应用	邓毅书
860	能源植物麻疯树嫁接改良技术研究	何璐,虞泓,范源洪,沙毓沧, 袁理春
863	入侵杂草土荆芥挥发油抗皮肤真菌活性的初步研究	廖颖,杨丹,李元,马丹炜
866	扁穗牛鞭草种质资源的 RAPD 分析	陈永霞,张新全,马啸,谢文刚
872	野生葎草种群有性生殖投入与收益差异性分析	刘金平,康军利
876	粤东地区苋科入侵植物种群的构件生物量结构	朱慧,马瑞君

动物科学

881	亚临床酮病奶牛血浆 Leptin 的动态变化研究	杜玉兰,杨宾宾,黄静,何宝祥, 李恭贺
885	FSH + LH 添加方式、半胱氨酸、EGF 对猪 IVM 卵母细胞早期孤雌发育的影响	许惠艳,苏克同,何若钢,梁世忠, 卢晨盛,卢克焕
890	共表达 γ 干扰素的乙型脑炎病毒与猪细小病毒核酸疫苗的构建及其免疫原性研究	叶茂,郭万柱,徐志文,王小玉, 李云云
897	不同养殖模式下生猪排污系数测定	何志平,曾凯,李正确,吕学斌, 陶璇
903	H1N1 亚型猪流感病毒 M 基因、NS 基因克隆与序列分析	王艳艳,鄢明华,李秀丽,张丽, 孙英峰,常维山
908	皮特兰、斯格和 PIC 猪肉质指标的比较研究	陈静,刘显军,张飞,边连全, 陈华
912	藏猪 $IGF\ I$ 基因外显子 4 和 $IGF\ II$ 基因内含子 7 PCR-RFLP 分析	强巴央宗,彭俊飞,辜雪冬,杨涛, 张浩
916	鸡肾型传染性支气管炎病毒的分离及其 N 基因序列分析	王希军,胡北侠,黄艳艳,李建亮, 姜宁朋,张秀美
921	兴义矮脚鸡染色体核型及 G 带带型研究	张福平,王建中,傅筑荫,陈彬
926	肉鸡对蚯蚓蛋白质利用率的研究	谭文彪,李彪仁
930	长薄鳅(<i>Leptobotia elongata</i>)线粒体 DNA 控制区遗传多样性研究	赵刚,周剑,杜军,刘光迅, 陈先均,朱健,李建林

938 林芝地区鱼类资源调查及保护对策

周 剑, 赖见生, 杜 军, 刘光迅,
赵 刚, 林 珩, 吴明森, 刘 亚

农业工程

943 种绳直播机动态响应系统的测试研究

吕小荣, 程新平, 吕小莲

948 西部贫困地区农村能源刚性研究——基于滇西北的问卷调查

张 兴, 乔召旗, 林 郁

综 述

953 区域现代农业规划理论与方法研究

李 晓, 林正雨, 何 鹏, 曾 鸣,

雷 波, 刘 强, 陈春燕, 古 稳

黎小正, 童桂香, 韦信贤, 吴祥庆

965 西南丘陵山地甘薯产业升级换代的若干问题及对策

王卫强, 高 荣, 钟巍然, 黄世龙,

刘剑飞

968 芒果畸形病的病因学及综合防治研究进展

王万东, 龙亚芹, 黄家雄, 刘光华,

王美存, 解德宏, 陈于福, 陈华蕊,

尼章光

972 畜产品生产中标识技术的融合应用研究

曹志勇, 赵家松, 赵金燕, 张 曦,

陶琳丽

976 云南民族特用蔬菜资源文化调查

李卫芬, 林立飞, 秦 荣, 刘发万

简 报

981 药用植物金铁锁无性系保存

虞 泓, 屈 燕, 程治英, 龙春林,

马晓青

983 贵州老鹰茶原料植物调查

王济红, 祁 翔, 姚松林

986 三种川产石斛有效成分的测定及其分布规律研究

陈 莹, 崔 盛, 陶宗娅

989 除虫菊组织培养快繁技术研究

张军云, 马文彬, 瞿 观, 王耀生

993 纹瓣兰无菌播种快繁技术研究

张 铁, 李洪超, 王国芬

SOUTHWEST CHINA JOURNAL OF AGRICULTURAL SCIENCES

Vol. 23 No. 3 2010

Contents

CROP GENETICS & BREEDING · GERMPLASM RESOURCES

- 613 Determination of Functional Compositions in Different Barley Cultivars (lines) by Spectrophotometry ZHAO Chun-yan, ZENG Ya-wen, PU Xiao-ying, YANG Shu-ming, DU Juan
- 619 Cloning of Two α -Subunit Genes of ADP-Glucose Pyrophosphorylase from Sweet Potato and Plant Expression Cassettes Construction ZHANG Cong, ZHENG Xue-lian, PU Zhi-gang, WU Jie, WANG Da-yi, YAN Wen-zhao
- 625 Breeding and Characteristics of Yunyan203, A New Variety of Flue-Cured Tobacco JIAO Fang-chan, XIAO Bing-guang, LI Yong-ping, ZHANG Yi-han, YU Hai-qin, LU Xiu-ping

TILLAGE & CULTIVATION · PHYSIOLOGY

- 629 Effect of Cultural Density and Model on Main Crop and Ratooning Rice of Mid-season Hybrid Rice in Winter Paddy Field XU Fu-xian, FAN Qing-hua, CHEN Ying-ping, CHEN Chang-rong, CHEN Ding-su, ZENG Jing-cheng, CHEN Zu-jun, ZHANG Lin, LIU Mao, ZHOU Xing-bing, GUO Xiao-yi, XIONG Hong, ZHU Yong-chuan
- 636 Main Technology Models and Its Application Effect of Science and Technology Project for High Yielding in Sichuan YU Chun-lian, REN Guang-jun, CHI Zhong-zhi, ZHENG Jia-guo, YANG Wen-yu, LIU Dai-yin, TAO Shi-shun, REN Wan-jun
- 641 Effects of Different Mulching Material and Irrigation on Wheat Yield and Water Use Efficiency in Dry Land in Hilly Area of Sichuan Basin LIU Ding-hui, PANG Liang-yu, CHEN Shang-hong, SHU Li, ZHANG Yu-lan
- 644 Preliminary Toxicological Assessment of *Auricularia polytricha* Cultivated by Genetically Modified Cotton Seed Hull YU Meng-yao, ZHENG Lin-yong, XU Xiao-yan, JIANG Nan, WEI Wei, LUO Xia
- 650 Study on Law of Growth and Development for Perennial Cultivation of Annual Upland Cotton in Southern Guangxi CHEN Guo-ping, ZHANG Xin, ZHOU Rui-yang, ZHAO Hong-tao
- 656 Study on Suitable Maturity Harvest of Tobacco Variety 'Honghuadajinyuan' in Liangshan Area LIU Jian-kang, GUO Qun-zhao, XUE Jian-bo
- 660 Analysis of Efficiency of Virus-free Potato Rapid Propagation WANG Ke-xiu, HE Wei, HU Jian-jun, CHEN Ping-ping, TANG Ming-xia, MU Wen-ping, YANG Lin, BAI Jin-da, LU Yue-hua, HUANG Zhong-yan
- 665 Research on Agroclimate Changes for Principal Agricultural Season in Central Yunnan LI Qian, WANG Yu, DING Zhao-tang, ZHANG Xin-fu
- 674 Effects of Different Anti-drought Measures on Physiological Activity Characteristics of Leaves in Fruit Picking Period of Nectarine TU Mei-yan, JIANG Guo-liang, DU Jin-cheng, LIAO Ming-an, CHEN Dong, XIE Hong-jiang, LI Jing, SUN Shu-xia
- 679 Comparative Analysis of Chemical Components of Tobacco between Luzhou and Other Areas both Domestic and Abroad SONG Wen-feng, LIU Guo-shun, JIN Yi-bing, DENG Ming-zhi, LI Xia, LUO Ding-qi, ZHANG Yong-hui, LEI Xiao, XIE Qiang

685	Comparative Analysis of Carotenoid Contents between Difference Growing Areas, Stalk Position and Tobacco Types of Flue-Cured Tobacco	FU Ya-li, LI Hong-guang, SU Yong, WANG Chao, ZHOU Li
690	Effect of Sucrose and Natural Organic Affixtures on Flavonoids Biosynthesis of Ginkgo Callus	HU Yan-mei, GUO Yun-gui, JIANG Xi-wang, YU Qun-di, CUI Peng
694	Study on Photosynthetic Characteristics of <i>Lycoris aurea</i> in <i>Lycoris</i> Herb.	QUAN Miao-hua, CHEN Dong-ming, HE Ji
700	Study on Exterior Appearance Difference of 'Zijuan'	CAI Li, LIANG Ming-zhi, XIA Li-fei, CHEN Lin-bo, SUN Yun-nan
704	Studies on Variation of Physiology and Biochemistry during Post-Maturation of Seeds in <i>Panax notoginseng</i> . Effect of Different Store Condition Viability during Post-Maturation of <i>P. notoginseng</i> Seeds	CUI Xiu-ming, AN Na, HUANG Lu-qi, DUAN Cheng-li, XIAO Feng-hui
707	Effect of High Temperature Stress on Growth and Content of Heat Resistant Materials of Green Gram Hypocotyls	TIAN Xue-jun, LUO Jing, LUO Bing
710	Preliminary Research on Screening of Six Plant Growth Regulators with Yam in South China	WEN Guo-quan, WEN Cheng-zhong, MO Jiang-ni
714	Optimizing the Condition of Enzyme Production of Cellulose-decomposing Fungus for Straw and Breeding Mutant Strains with High Cellulase Activity	FU Chuan-ming, HE Jin-xiang, HUANG Ning-zhen, HE Cheng-xin, ZHOU Hao, WANG Xin-gui

PLANT PROTECTION · SOIL & FERTILIZER · LAND PLANNING

719	Analysis of Stem-borer Resistance and Application in Breeding of Indica Rice IR75288-38-3-1	LI Yong-hong, XIE Rong, LIU Cheng-yuan, XIANG Yu , LUO Jing, ZHU Yong-chuan
724	Grey Comprehensive Evaluation on Inter-Planting Systems of Genetic Diversity Controlling Rice Blast Diseases	HE Han-ming, FANG Hui, ZHOU Hui-ping, XIE Yong, LIU lin, FENG Jian-meng, LI Cheng-yun, ZHU You-yong
728	Distribution and Damage of Major Whitefly Pests in Southwest China	LIU Man, WANG Ji-hong, REN Chun-guang, XIANG Zhun, YAO Song-lin
735	Effect of <i>Trichoderma</i> L24 Strain on Controlling Maize Head Smut	ZHANG Min, YANG Chun-ping, QIU Bo, XIE Jin, CHEN Hua-bao, GONG Guo-shu, YANG Ji-zhi
739	Preliminary Studies on Identification and Resistance Mechanism of Maize to Head Smut	YANG Chun-ping, TIAN Shuang-mei, ZHOU Miao-miao, YE Xue-ling, CHEN Hua-bao, GONG Guo-shu, ZHANG Min
744	Attractive Effects of Sex Pheromone on Three Major Lepidopteran Pest Insects in Tobacco Fields	ZHANG Cui-ping, YANG Shuo-yuan, YANG Bi-su, YANG Song
747	Identification of Physiological Race with <i>Phytophthora infestans</i> and Resistant Assessment of Variety	LIU Bo-wei ,PENG Hua-xian, XI Ya-dong, HE Jun-rong
752	Study on the Identification and Biological Characterization of Pathogen (<i>Colletotrichum gloeosporioides</i> Penz.) from Papaya	HE Fan, FAN Hong-yan, LUO Ni, TAO Ting-yan
756	Isolation and Identification Research of Mycorrhizal Isolated from Several Orchids in Yunnan Province	DUAN Chun-fang, LI Zhi-lin, FANG Fei, YANG Gen-hua, CHEN Si-si ,HONG Qun-yan
760	Identification and Biological Characteristics of Pathogen of Mulberry Disease	HE Lei , HU Jun-hua, XU Li, YAO Ting-shan, RAN Chun, LI Hong-jun , LIU Hao-qiang, LEI Hui-de

764	Determination of 30 Organochlorine and Pyrethroid Pesticide Residues in Tea by GC-ECD	YANG Xiao-feng, XIE Lin, HAN Mei, YI Sheng-guo
768	Investigation on Insect Pest of Medicinal Plants in Sichuan Province and Pests Identification	YAN Ji-ming, YANG Qun-fang, YE Hua-zhi, LI Qing, JIANG Su-rong
772	Effects of Water Management Methods and Three Secondary and Microelements on Rice Growth and Cadmium Uptake	HU Kun, YU Hua, FENG Wen-qiang, QIN Yu-sheng, LAN Lan, LIAO Ming-lan, WANG Chang-quan, TU Shi-hua
777	Distribution Characteristics of Heavy Metals in Soils in Panzhihua V-Ti Magnetite Mine and Pollution Evaluation	ZHOU Ya, YANG Ding-qing, XIE Yong-hong, WANG Peng
782	Study on Nutrient Content of Soil in <i>Zizyphus Jujube</i> Orchards with Applied Biogas Waste Fertilizer	CHAI Zhong-ping, WANG Xue-mei, SUN Xia, JIANG Ping-an, GAO Min
786	Study on Leaf Mineral Nutrient and Its Effect on Fruit Quality of Gonggan (<i>Citrus reticulata</i> Blanco var. gonggan)	JI Qian-hua, GUO Yan-jun, YAO Jin-ming, HE Jin-hong
791	Evaluation of Tea Garden Soil Fertility in Yongchuan Chongqing	XU Ze, RUAN Jian-yun, LI Zhong-lin, MA Li-feng, DENG Min, WU Xiu-hong
796	Extraction and Analysis on Terrain Features of Yangjiang Farm Based on DEM	WANG Bo, ZHANG Pei-song, LUO Wei

HORTICULTURE

801	Research of Anti-fatigue Effect of Unfermented Pu-erh Tea	HUANG Ye-wei, SHAO Wan-fang, LENG Li-ying, ZHANG Dong-ying
805	Response and Filtration to Sowing Date in Tumorous Stem Mustard (<i>Brassica juncea</i> var. <i>tumida</i> Tsen et Lee)	LIU Yi-hua, ZHANG Zhao-rong, LENG Rong, LI Juan
810	Morphology Comparison and RAPD Genetic Diversity Analysis of Seven Varieties of <i>Capicum frutescen</i>	JIANG Xiang-hui, SHE Chao-wen, XU Dong, ZHANG Qing-hua, ZHAO Wang
814	Regulating Effect of <i>Trichoderma aureoviride</i> 1010 on Plant Hormone of Tomato under Inferior-chilling Stress in Solar-greenhouse	CHEN Wei-jing, LI Run-fang, YANG Huan-ming, CHEN Jian-ai
819	Effect of Autotoxic Material of Tomatoes on Soil Nutrients	ZHANG En-ping, YI Ning-ning, LI Liang-liang, LI Tian-lai, LIU Yong
824	Study on Culture of Immature Embryos from Cross-breeding of Polyembryonic Cultivar 'Hongjiangcheng' (<i>Citrus sinensis</i>) as Female Parent	WEI Xu, HAN Guo-hui, XIANG Su-qiong, WANG Wei-xing, LI Xiao-lin, LIANG Guo-lu
828	Study of Plant Nutritional Characteristics of High Yield Sugarcane	XIE Ru-lin, TAN Hong-wei, HUANG Mei-fu, ZHOU Liu-qiang, HUAN Jin-sheng, HUANG Xian-hua, ZENG Yan, YANG Rui-qing, DONG Wen-bin, WANG Lei CAO Hong-xing, FENG Mei-li, SUN Cheng-xu, CHEN Si-ting, CHEN Liang-qiu, WANG Gui-mei
832	Effect of Low Temperature and Drought Stress on Physiological Characteristics of Areca nut(<i>Areca catechu</i> L.) Seedlings	WANG Bin, ZHENG Wei, HE Xu-xiao, DENG Ren-ju, PENG Yu-ji, ZHOU Jun-liang
836	Effect of CaCl ₂ on Quality of Pitaya Fruits under Cold Storage	CAI Qian-rong, WU Wei, YANG Wen-ting
841	Correlation and Path Analysis of Seed Yield Per Plant and Mainly Agro-nomic Traits in <i>Perilla</i> L.	

847	Application of Perennial Flowers in Green Spaces of Kunming City	ZHU Yong, ZHANG Ying, YUAN Dong-mei, ZHANG Lei
852	Featured Plants Applied in China Gardens of Kunming World Expo Park	DENG Yi-shu
860	Study on Grafting and Improving of Biomass Energy Plant <i>Jatropha curcas</i> L.	HE Lu, YU Hong, FAN Yuan-hong, SHA Yu-cang, YUAN Li-chun
863	Antifungal Activity of Volatile Oil from Invasive Weed, <i>Chenopodium album</i> L. on Dermatophytes	LIAO Ying, YANG Dan, LI Yuan, MA Dan-wei
866	Genetic Diversity of <i>Hemarthria compressa</i> Germplasm Detected by RAPD	CHEN Yong-xia, ZHANG Xin-quan, MA Xiao, XIE Wen-gang
872	Variation Analysis of Sexual Reproductive Investment for Wild <i>Humulus scandens</i> (Lour) Merr. Population	LIU Jin-ping, KANG Jun-li
876	Module Biomass Structures of Amaranthaceous Invasive Plant Populations in East Guangdong	ZHU Hui, MA Rui-jun

ANIMAL SCIENCES

881	Dynamic Changes in Plasma Leptin Levels in Dairy Cow with Subclinical Ketosis	DU Yu-lan, YANG Bin-bin, HUANG Jing, HE Bao-xiang, LI Gong-he
885	Effects of Supplementation Method of Gonadotrophin and Different Concentrations of Cysteine and EGF During Prophase Parthenogenesis of Porcine Oocyte in vitro Maturation	XU Hui-yan, SU Ke-tong, HE Ruo-gang, LIANG Shi-zhong, LU Sheng-sheng, LU Ke-huan
890	Research on Construction of DNA Vaccine of Recombinant Porcine Parvovirus Virus Coexpressing E10 Protein of Japanese Encephalitis Virus Fused with <i>polFN-γ</i> gene and Its Immunogenicity in Mice	YE Mao, GUO Wan-zhu, XU Zhi-wen, WANG Xiao-yu, LI Yun-yun
897	Determination of Pig Pollutants Discharge Coefficient in Different Culture Modes	HE Zhi-ping, ZENG Kai, LI Zheng-que, LV Xue-bin, TAO Xuan
903	Cloning and Sequence Analysis of <i>M</i> and <i>NS</i> of H1N1 Swine Influenza Virus	WANG Yan-yan, YAN Ming-hua, LI Xiu-li, ZHANG Li, SUN Ying-feng, CHANG Wei-shan
908	Comparison of pork indexes of Pietrain, Seghers and PIC pig	CHEN Jing, LIU Xian-jun, ZHANG Fei, BIAN Lian-quan, CHEN Hua
912	PCR-RFLP Polymorphisms of <i>IGF I-exon4</i> and <i>IGF II-intron7</i> in Tibet Pigs	Chamba Yang-zom, PENG Jun-fei, GU Xue-dong, YANG Tao, ZHANG Hao
916	Isolation and Sequence Analysis of <i>N</i> Gene of Avian Infectious Bronchitis Nephritis Virus	WANG Xi-jun, HU Bei-xia, HUANG Yan-yan, LI Jian-liang, JIANG Ning-peng, ZHANG Xiu-mei
921	Study on Karyotype and G-band Pattern of Xingyi Bantam	ZHANG Fu-ping, WANG Jian-zhong, FU Zhu-yin, CHEN Bin
926	Study on Utilization Ratio of Earthworm Protein by Broilers	TAN Wen-biao, LI Biao-ren
930	Genetic Diversity of Elongate Loach (<i>Leptobothrus elongatus</i>) Inferred from Mitochondrial DNA Control Region	ZHAO Gang, ZHOU Jian, DU Jun, LIU Guang-xun, CHEN Xian-jun, ZHU Jian, LI Jian-jin

- 938 Investigation and Protection Countermeasures of Fish Resources in Nyingchi Prefecture ZHOU Jian, LAI Jian-sheng, DU Jun, LIU Guang-xun, ZHAO Gang, LIN Jue, WU Ming-sen, LIU Ya

AGRICULTURAL ENGINEERING

- 943 Testing and Study on Dynamic Response System of Rope Direct Seeding Machine LV Xiao-rong, CHENG Xin-ping, LV Xiao-lian
- 948 Study on Rigidity of Rural Energy in Poor Area of the West——Based on Questionnaires Carried out in Northwest Yunnan ZHANG Xing, QIAO Zhao-qi, LIN Yu

REVIEWS

- 953 Study on Theory and Method of Regional Modern Agricultural Planning LI Xiao, LIN Zheng-yu, HE Peng, ZENG Ming, LEI Bo, LIU Qiang, CHEN Chun-yan, GU Wen
- 959 ISSR-PCR and Application in Genetic Diversity Research of Aquatic Species LJ Xiao-zheng, TONG Gui-xiang, WEI Xin-xian, WU Xiang-qing
- 965 Several Questions and Strategies in Industrial Upgrading and Renewal of Sweet Potato in Southwest Hill and Mountain Region WANG Wei-qiang, GAO Rong, ZHONG Wei-ran, HUANG Shi-long, LIU Jian-fei
- 968 Progress of Etiology and Integrated Control Management on Mango Malformation Disease WANG Wan-dong, LONG Ya-qin, HUANG Jia-xiong, LIU Guang-hua, WANG Mei-cun, XIE De-hong, CHEN Yu-fu, CHEN Hua-rui, NI Zhang-guang, CAO Zhi-yong, ZHAO Jia-song, ZHAO Jin-yan, ZHANG Xi, TAO Lin-li
- 972 Studies on Application of Marking Technologies Fusion in Producing of Livestock Products LI Wei-fen, LIN Li-fei, QIN Rong, LIU Fa-wan
- 976 Investigation on Species Resources of Vegetable Culture in Ethnic Groups

RESEARCH NOTES

- 981 In vitro Preservation of *Psammosilene tunicoides* W. C. Wu et C. Y. Wu YU Hong, QU Yan, CHEN Zhi-ying, LONG Chun-lin, MA Xiao-qing
- 983 Investigation on Material Plants of *Lisea Coreana* in Guizhou WANG Ji-hong, QI Xiang, YAO Song-lin
- 986 Determination of Effective Compositions of Three Sichuan Dendrobium Plants and Research of Distributions CHEN Rui, CUI Sheng, TAO Zong-ya
- 989 Study on Rapid Propagation of *Pyrethrum cinerariifolium* Trev. by Tissue Culture ZHANG Jun-yun, MA Wen-bin, QU Guan, WANG Yao-sheng
- 993 Study on Technology of Aseptic Sowing and Rapid Propagation of *Cymbidium aloifolium* ZHANG Tie, LI Hong-chao, WANG Guo-fen