

## 目 次

- 30 年来北京市土地利用时空变化特征 ..... 胡莹洁 孔祥斌 张宝东(1)
- 棉花蔗糖转化酶基因家族的生物信息学分析 ... 韩玉慧 陈琴 张会 王慧敏 陈全家(15)
- 不同薏苡品种光合特性及其与氮素利用效率的关系  
..... Nghiem Tien Chung 江立庚 孔飞扬 Bui Ngoc Anh(31)
- 不同地域对谷子农艺性状的影响  
..... 段宏凯 王宏富 王钰云 原向阳 董淑琦 郭平毅(40)
- 密度与氮肥对机采棉叶铃分布的影响及与产量的关系  
..... 李春艳 张巨松 石洪亮 李健伟 窦海涛 向雁玲(47)
- 长期施肥模式对双季水稻生理特性与产量的影响  
..... 唐海明 肖小平 李超 汤文光 郭立君 汪柯 程凯凯 潘孝晨 孙耿(60)
- 梅花鹿 *Thymosin beta* 10 基因的原核表达、  
活性鉴定和多克隆抗体制备 ..... 褚文辉 张伟 赵海平 王大涛 李春义(72)
- 饲料添加剂对感染球虫肉鸡早期肠道健康的影响  
..... 刘雪 杜叶叶 李涛 耿照玉 陈兴勇 宛晓春(80)
- GDF-9 对牦牛 COCs 体外成熟培养及其相关基因 mRNA 表达的影响  
..... 王玉恒 徐业芬 索朗斯珠 强巴央宗 郭敏  
程玲华 牛家强 贡嘎 王刚 孔庆辉(88)
- 蜂王浆主蛋白对四氯化碳诱导小鼠急性肝脏损伤的保护作用  
..... 孟超 郑双艳 康路妹 陈蔚 方进 许宝华(97)
- 基于加速度传感器的种公羊运动行为识别  
..... 张曦宇 武佩 宣传忠 杨建宁 刘艳秋 郝敏(104)

黏土对沙地土壤改良效果的微形态研究

——以内蒙古科尔沁沙地为例…………… 李珍珍 王教 张宏飞 毛率垒 任娜欧(115)

培养条件下添加有机废弃物对土壤氮磷养分有效性的影响

…………… 其力莫格 常瑞雪 张新梅 陈清(124)

膜下滴灌施肥对樱桃产量品质和土壤肥力的影响…………… 曹晓庆 杨培岭 李憑峰(133)

井水增温灌溉对寒地水稻生物学特征及水肥利用效率的影响

…………… 徐飞 隋文志 怀宝东 杨雪 隋新(142)

井灌区机井取水量定额管理下的地下水动态模拟…………… 叶水根 叶皓研 张成龙 李枫(152)

基于改进 VGG 卷积神经网络的棉花病害识别模型

…………… 张建华 孔繁涛 吴建寨 翟治芬 韩书庆 曹姗姗(161)

收获期马铃薯茎秆切割强度的试验研究…………… 李晓军 孙伟 张涛 刘小龙 张华(172)

葡萄果实碰撞损伤试验研究及有限元分析

…………… 马帅 徐丽明 邢洁洁 袁全春 段壮壮 于畅畅 陈晨(180)

玉米收储制度改革对东北主产区农户种植结构调整意愿的影响

——基于吉林省 359 个农户的调查数据

…………… 刘慧 薛凤蕊 周向阳 刘福江 赵一夫(187)

生猪价格波动特征及形成机理的异质性

——基于 M-K 检验和协方差分析 …………… 付莲莲 罗千峰(196)

溯源追责框架下猪肉质量安全问题产生的逻辑机理与治理路径

——基于全产业链视角的调查研究…………… 刘增金 王萌 贾磊 乔娟(206)

鸡蛋期现货市场溢出效应与动态关联研究…………… 郑燕 马骥(222)

农业社会化服务有利于农业生产效率的提高吗?

——基于三阶段 DEA 模型的实证分析 …………… 杨彩艳 齐振宏 黄炜虹 左志平(232)

## CONTENTS

- Spatiotemporal features of land use change in Beijing in the past 30 years  
..... *HU Yingjie, KONG Xiangbin, ZHANG Baodong* (1)
- Bioinformatics analysis of invertase gene family in cotton  
..... *HAN Yuhui, CHEN Qin, ZHANG Hui, WANG Huimin, CHEN Quanjia* (15)
- Photosynthetic characteristics and its relationship with nitrogen utilization efficiency of differentcoix cultivars ..... *Nghiem Tien Chung, JIANG Ligeng, KONG Feiyang, Bui Thi Anh* (31)
- Effect of different regions on the agronomic traits of millet  
..... *DUAN Hongkai, WANG Hongfu, WANG Yuyun, YUAN Xiangyang, DONG Shuqi, GUO Pingyi* (40)
- Effect of planting density and nitrogen application on the distribution of leaf and boll in machine picking cotton and its relationship with yield  
..... *LI Chunyan, ZHANG Jusong, SHI Hongliang, LI Jianwei, DOU Haitao, XIANG Yanling* (47)
- Effects of different long-term fertilization managements on the physiological characteristics of leaves and yield of rice in double cropping paddy field  
..... *TANG Haiming, XIAO Xiaoping, LI Chao, TANG Wenguang, GUO Lijun, WANG Ke, CHENG Kaikai, PAN Xiaochen, SUN Gen* (60)
- Prokaryotic expression, activity testing and polyclonal antibody preparation of *thymosin beta* 10 gene of sika deer  
..... *CHU Wenhui, ZHANG Wei, ZHAO Hai ping, WANG Datao, LI Chunyi* (72)
- Effects of feed additives on the intestinal health of broilers during the early period of coccidial infection ..... *LIU Xue, DU Yeye, LI Tao, GENG Zhaoyu, CHEN Xingyong, WAN Xiaochun* (80)
- Effect of GDF-9 on *in vitro* maturation culture and the expression of related genes in yak COCs  
..... *WANG Yuheng, XU Yefen, Suolangsizhu, Changbayangzong, GUO Min, CHENG Linghua, NIU Jiaqiang, GONG Ga, WANG Gang, KONG Qinhui* (88)
- Protective effect of MRJPs on carbon tetrachloride-induced acute liver injury in mice  
..... *MENG Chao, ZHENG Shuangyan, KANG Lumei, CHENG Wei, FANG Jin, XU Baohua* (97)
- Recognition of the movement behavior of stud rams based on acceleration sensor  
..... *ZHANG Xiyu, WU Pei, XUAN Chuanzhong, YANG Jianning, LIU Yanqiu, HAO Min* (104)

Micromorphological research on the effect of sandy soil improvement with clay:

A case study of Horqin Sandy Land in Inner Mongolia

..... *LI Zhenzhen, WANG Shu, ZHANG Hongfei, MAO Shuailei, REN Naou* (115)

Effect of organic wastes incorporation on soil nitrogen and phosphorus availability

under incubating condition ... *QILI Moge, CHANG Ruixue, ZHANG Xinmei, CHEN Qing* (124)

Effects of drip fertigation beneath mulched film on cherry yield, quality and soil fertility in

cherry orchard ..... *CAO Xiaoqing, YANG Peiling, LI Pingfeng* (133)

Effects of warming well water irrigation on the biological characteristics of rice in cold regions

and its water and fertilizer use efficiencies

..... *XU Fei, SUI Wenzhi, HUAI Baodong, YANG Xue, SUI Xin* (142)

Simulation of groundwater dynamics under water quota management in well irrigation area

..... *YE Shuigen, YE Haoyan, ZHANG Chenglong, LI Feng* (152)

Cotton disease identification model based on improved VGG convolution neural network

..... *ZHANG Jianhua, KONG Fantao, WU Jianzhai, ZHAI zhifen, HAN Shuqing, CAO Shanshan* (161)

Experimental study on the cutting strength of potato vine during harvest

..... *LI Xiaojun, SUN Wei, ZHANG Tao, LIU Xiaolong, ZHANG Hua* (172)

Study on collision damage experiment of grape and finite element analysis

..... *MA Shuai, XU Liming, XING Jiejie, YUAN Quanchun, DUAN Zhuangzhuang, YU Changchang, CHEN Chen* (180)

Effects of corn storage system reform on households' willingness of planting structure adjustment:

Based on the survey data of 359 households in Jilin Province

..... *LIU Hui, XUE Fengrui, ZHOU Xiangyang, LIU Fujiang, ZHAO Yifu* (187)

Heterogeneity of the characteristics and formation mechanism of hog price's volatility:

Based on M-K test and covariance analysis ..... *FU Lianlian, LUO Qianfeng* (196)

Logic mechanism and countermeasures of pork quality and safety problems under the framework of

traceability and accountability: A survey based on the perspective of whole industry chain

..... *LIU Zengjin, WANG Meng, JIA Lei, QIAO Juan* (206)

Study on the spillover effect and dynamic relationship between egg futures market and

spot market in China ..... *ZHENG Yan, MA Ji* (222)

Is agricultural social service conducive to the improvement of agricultural production efficiency?:

An empirical analysis based on three stage DEA model

..... *YANG Caiyan, QI Zhenhong, HUANG Weihong, ZUO Zhiping* (232)