

节水灌溉



2019 5

中国国家灌溉排水委员会 中国灌溉排水发展中心
武汉大学 国家节水灌溉北京工程技术研究中心

主办

WATER SAVING IRRIGATION



天业节水
TIANYE DRIP IRRIGATION

股票名称：天业节水 股票代码：00840.HK
中国节水灌溉行业标准制定者

绿色高效
为农服务

(王梓林摄影)

ISSN 1007-4929



企业信息



节水农业网



新疆天业节水灌溉股份有限公司
XINJIANG TIANYE WATER SAVING IRRIGATION SYSTEM CO., LTD.

地址：新疆石河子市经济技术开发区北三东路36号
电话：0993-2623165 2623175
传真：0993-2623180
网址：www.tianyejieshui.com.cn
邮箱：tyjs@xjtymail.com

目 次

□试验研究□

基于半定量方法的施肥管理模型	韩聪颖 张宝忠 刘 钰(1)
基于生理生态指标的玉米受旱胁迫响应规律研究	袁宏伟 蒋尚明 杨继伟 等(5)
基于 PCA 优化—BP 神经网络算法的农田土壤养分评价	宛 恒 任文裕 周慧平 等(11)
水肥一体化灌溉施肥机吸肥性能试验研究	陈囡囡 朱德兰 柏 杨 等(17)
荒漠草原灰钙土土壤入渗特征及测定方法比较	陈 娟 陈 林 宋乃平 等(21)
蓄水坑灌下不同氮素水平对苹果叶片光合作用的影响	高 娟 马娟娟 孙瑞峰 等(27)
微喷周期对葡萄叶片 SPAD 值和叶绿素含量与产量的影响分析	刘洪波 白云岗 张江辉 等(31)
蓄水坑灌下苹果树根系生长对不同氮素水平的响应	张人天 马娟娟 孙瑞峰 等(35)
动水条件下分离鳃水沙分离效率的分析	张继领 陶洪飞 姜有为 等(41)
疏勒河流域辣椒膜下滴灌耗水规律及节水型灌溉制度研究	吴 婕(46)
蓄水坑灌不同灌水上下限对苹果树叶片蒸腾日变化的影响	马文云 孙西欢 马娟娟 等(51)
生物炭施用对节水灌溉稻田土壤酶活性的影响	江贻伟 杨士红 李育华 等(57)

□水环境与水资源□

不同矿化度对层状土入渗规律的影响研究	仲轩野 朱成立 柳智鹏 等(63)
河流曲度对水体中磷去除影响的试验研究	陈睿东 陈 菁 肖晨光 等(67)
莱州湾南岸浅层地下水咸化特征及其指示意义	刘宏伟 胡云壮 马 震 等(71)
盐碱地滴灌玉米体内 Na^+ 、 K^+ 、 Ca^{2+} 、 Mg^{2+} 的分布及运移特征	刘 帆 周青云 张宝忠 等(77)
基于组合赋权的改进尼梅罗指数法在地下水水质评价中的应用	骆茂林 罗 欢 李中阳 等(83)

□工程管理□

基于 PCCs-DEMATEL 指标筛选的 BP 神经网络用水量预测	崔惠敏 薛惠锋 王 磊 等(87)
考虑坡面地形的蒸散发遥感估算及空间分布研究	尹 剑 欧照凡(92)
熵权属性识别模型综合评价灌溉管理模式	孙瑜辉 岳春芳 王庆杰 等(99)
基于云模型的合同节水管理风险评价	汪伦焰 武杨凯 李慧敏 等(104)
黄淮平原节水高效灌溉技术综合评价分析	郭乙霏 潘国强 王文婷 等(109)
兼业程度、农业水资源短缺感知与农户节水技术采用行为——基于陕西省农户的调查数据	杨 飞 李爱宁 周翠萍 等(113)

□信 息□

摘要编写须知	(62)
《节水灌溉》投稿须知	(116)

Water Saving Irrigation (Monthly)

May 2019

No.5(2019) , Total No.285

Contents

A Soil Fertilizer Management Model Based on Semi-quantitative Approach	HAN Cong-ying, ZHANG Bao-zhong, LIU Yu(1)
The Response Regularity of Maize under Drought Stress Based on Physiological Indexes	YUAN Hong-wei, JIANG Shang-ming, YANG Ji-wei, et al.(5)
Farmland Soil Nutrient Evaluation Based on PCA Optimization-BP Neural Network Algorithm	WAN Heng, REN Wen-yu, ZHOU Hui-ping, et al.(11)
Experimental Study on Fertilization Performance of Integrated Water and Fertilizer Fertigation Machine	CHEN Nan-nan, ZHU De-lan, BO Yang, et al.(17)
Soil Infiltration Characteristics and Determination Methods Comparison of Sierozem in Desert Steppe	CHEN Juan, CHEN Lin, SONG Nai-ping, et al.(21)
Effects of Different Nitrogen Levels on Photosynthesis of Apple Leaves under Water Storage Pit Irrigation	GAO-Juan, MA Juan-juan, SUN Rui-feng, et al.(27)
Effect of Micro Spraying Irrigation Period on SPAD and Chlorophyll Content and Yield of Grape Leaves	LIU Hong-bo, BAI Yun-gang, ZHANG Jiang-hui, et al.(31)
Response of Root Growth of Apple Trees to Different Nitrogen Levels under Water Storage Pit Irrigation	ZHANG Ren-tian, MA Juan-juan, SUN Rui-feng, et al.(35)
Analysis of Separation Efficiency of Gill-piece Separation Device under Moving Water Condition	ZHANG Ji-ling, TAO Hong-fei, JIANG You-wei, et al.(41)
Study on Water Consumption Regularity and Water Saving Irrigation Schedule of Drip Irrigation under Membrane for Pepper in Shule River Basin	WU Jie(46)
Effects of Different Irrigation Upper and Lower Limits on the Diurnal Variation of Transpiration of Apple Tree Leaves under Water Storage Pit Irrigation...	MA Wen-yun, SUN Xi-huan, MA Juan-juan, et al.(51)
Effects of Biochar Application on Soil Enzyme Activities of Paddy Fields under Water-saving Irrigation	JIANG Ze-wei, YANG Shi-hong, LI Yu-hua, et al.(57)
A Study on the Influence of Different Salinity on the Infiltration Law of Layered Soil	ZHONG Xuan-ye, ZHU Cheng-li, LIU Zhi-peng, et al.(63)
An Experimental Study on the Influence of River Sinuosity on Phosphorus Removal Efficiency in Water	CHEN Rui-dong, CHEN Jing, XIAO Chen-guang, et al.(67)
Characteristics of Shallow Groundwater Salinization and Its Indication in Southern Laizhou Bay Area	LIU Hong-wei, HU Yun-zhuang, MA Zhen, et al.(71)
Distribution and Transport Characteristics of Na^+ , K^+ , Ca^{2+} , Mg^{2+} in Maize under Drip Irrigation Saline Land	LIU Fan, ZHOU Qing-yun, ZHANG Bao-zhong, et al.(77)
Application of the Improved Nemerow Index Method Based on Combined Weights in Groundwater Quality Evaluation	LUO Mao-lin, LUO Huan, LI Zhong-yang, et al.(83)
BP Neural Network Water Consumption Prediction Based on PCCs-DEMATEL Index Selection	CUI Hui-min, XUE Hui-feng, WANG Lei, et al.(87)
Remote Sensing Estimation and Spatial Distribution of Evapotranspiration Considering Slope Topography	YIN Jian, OU Zhao-fan(92)
Irrigation Management Mode Comprehensive Evaluation Based on Entropy Weight Attribute Recognition Model	SUN Yu-hui, YUE Chun-fang, WANG Qing-jie, et al.(99)
Contract Water-saving Management Risk Assessment Based on Cloud Model	WANG Lun-yan, WU Yang-kai, LI Hui-min, et al.(104)
Comprehensive Evaluation and Analysis of Water Saving and High Efficiency Irrigation Technology in Huang-huai Plain	GUO Yi-fei, PAN Guo-qiang, WANG Wen-ting, et al.(109)
Part-time Employment, Agricultural Water Shortage Perception and Water-saving Technology Adoption Behavior of Farmers —— Based on the Survey Data of Farmers in Shaanxi Province	YANG Fei, LI Ai-ning, ZHOU Cui-ping, et al.(113)

Competent Authorities: Ministry of Water Resources

Sponsor: Chinese National Committee on Irrigation and Drainage

China Irrigation and Drainage Development Centre

Wuhan University

National Center of Efficient Irrigation Engineering and Technology Research-Beijing

Publisher and editor: Editorial Department of Water Saving Irrigation

(Wuhan University, Wuhan, 430072, China)

Editor in Chief: Cui Yuanlai

Distribute Scope: Worldwide

Domestic Subscription: Every Post Office in China

E-mail: jieshuiguangai@188.com

Homepage: [http:// www.irrigate.com.cn](http://www.irrigate.com.cn)

万方数据