

目次

□试验研究□

开沟覆膜滴灌条件下土壤水、温变化规律研究	叶建威 刘洪光 何新林 等(1)
膜下滴灌水稻 <i>spad</i> 与农艺性状、产量的相关性分析	赵双玲 刘小武 李高华 等(5)
紫花苜蓿耗水规律及灌溉制度优化研究	郭彦芬 霍轶珍 王文达(8)
灌水延迟对冬小麦产量及水分利用效率的影响研究	褚桂红 李粉婵(11)
基于人工降雨的土壤水分入渗研究	宋幽静 张玉清 何俊仕 等(14)
不同水分处理条件下小麦需水规律研究	冯 诚 代俊峰 方小宇 等(18)
不同覆盖材料的荒地种植西瓜试验研究	王 斌 田军仓(21)
新疆干旱区膜下滴灌土壤水平衡模拟	胡 越 陆宝宏 熊 丝 等(25)
微咸水膜下滴灌对土壤盐分离子分布和番茄产量的影响	李金刚 屈忠义 孙贯芳 等(31)
不同灌水定额对枸杞光合作用及生长特性的影响	马爱娟 田军仓 马 波(36)
季节性冻融期不同水氮量组合下土壤水分的时空变化特征	刘姗姗 郑秀清 吴 博(40)
油菜不同灌溉模式对土壤水盐含量的影响及经济效益分析	张永宏 田生昌 杨建国 等(45)

□水环境与水资源□

星海湖水环境因子时空异质性及水环境质量综合评价	伍冠星 李 斌 白维东 等(48)
基于扩展索洛模型的新疆水资源环境要素对畜牧业产值的贡献分析	陈俊科 李 红 马永仁 等(53)
基于 SWAT 模型的伊通河流域农业非点源污染损失估算	闫雪嫒 卢文喜 宋文博 等(57)
基于 Palmer 指数的朝阳地区 1952—2015 年干旱演变特征研究	丛 林 李晓辉 张 芳 等(61)
黑龙江干流水质评价与预测	路豪杰 徐淑琴 苏 鑫(65)
农业灌溉用水补偿博弈研究	邢夏洁 袁汝华(70)

□工程管理□

基于平衡计分卡的农田水利设施管护绩效指标的设定与评价——以农民用水户协会为分析对象	杨晓霞(74)
多主体模型下农用水权置换影响因素的机理研究	郑志来 胡 森(78)
鄂北地区水稻不同灌溉模式节水潜力分析	王丽红 刘路广 刘能胜 等(83)
根区等高覆盖灌溉——一种新的农田节水集成配套综合技术初探与展望	高国金 王明泽 杨树龙 等(86)
我国微灌发展现状及“十三五”发展展望	顾 涛 李兆增 吴玉芹(90)

□工程技术□

基于 MS10 的田间无线精准灌溉系统	王 斌 孙培钦 龙 燕 等(92)
一种智能云灌溉系统	何 江(97)
大数据及人工智能技术在灌溉领域的应用初探	王应海(100)

□信 息□

喷灌喷泉百家合作专业市场	(60)
--------------------	------

Water Saving Irrigation (Monthly)

March 2017

No.3(2017) , Total No.259

Contents

Research on Water and Temperature Change Law under Ditching and Mulched Drip Irrigation	YE Jian-wei, LIU Hong-guang, HE Xin-lin, et al.(1)
Analysis of Correlation of SPAD, Agronomic Trait and Yield of Rice under Mulched Drip Irrigation	ZHAO Shuang-ling, LIU Xiao-wu, LI Gao-hua, et al.(5)
A Study on Water Consumption Law and Irrigation Regime for Alfalfa	GUO Yan-fen, HUO Yi-zhen, WANG Wen-da(8)
A Study on the Effects of Delay Irrigation on the Yield and Water Use Efficiency in Winter Wheat	CHU Gui-hong, LI Fen-chan(11)
A Study on Soil Water Infiltration through Artificial Rainfall Simulation	SONG You-jing, ZHANG Yu-qing, HE Jun-shi, et al.(14)
A Study on Water Requirement Regulation of Wheat Under the Conditions of Different Water Treatments	FENG Cheng, DAI Jun-feng, FANG Xiao-yu, et al.(18)
Experimental study on Watermelon with Different Mulch Materials in Barren Land	WANG Bin, TIAN Jun-cang(21)
Simulation of Soil Water Balance of Drip Irrigation Under Mulch in Arid Area of Xinjiang	HU Yue, LU Bao-hong, XIONG Si, et al.(25)
Effect of Saline Water Mulched Drip Irrigation on Soil Salt Ions Distribution and Yield of Tomato	LI Jin-gang, QU Zhong-yi, SUN Guan-fang, et al.(31)
Effects of Different Irrigation Quota on Photosynthesis and Growth Characteristics of Lycium	MA Ai-juan, TIAN Jun-cang, MA Bo(36)
The Spatiotemporal Variation of Soil Water Content under Different Irrigation-Nitrogen Modes during Seasonal Freeze-thaw Period	LIU Shan-shan, ZHENG Xiu-qing, WU Bo(40)
The Analysis of Influence of Different Oil Sunflower Irrigation Modes on Soil Salt Content and Economic Benefit	ZHANG Yong-hong, TIAN Sheng-chang, YANG Jian-guo, et al.(45)
The Spatial and Temporal Character of Water Environment Factors and Water Environmental Quality Assessment of Xinghai Lake	WU Guan-xing, LI Bin, BAI Wei-dong, et al.(48)
Estimation of The Loss Caused by Agricultural Non-point Source Pollution in Yitong River Watershed Based on SWAT Model	YAN Xue-man, LU Wen-xi, SONG Wen-bo, et al.(57)
A Study on Drought Temporal-Variation Characteristic of Chao Yang District in 1952-2015 Based on PDSI	CONG Lin, LI Xiao-hui, ZHANG Fang, et al.(61)
Evaluation and Prediction of Water Quality of Heilongjiang River Based on Matter Element Analysis Method and Grey Prediction Model	LU Hao-jie, XU Shu-qin, SU xin(65)
Game Theory Research on Agricultural Irrigation Water Compensation	XING Xia-jie, YUAN Ru-hua(70)
Design and Evaluation of Index System Based on BSC for Farmland Water Conservancy Facility Management and Protection Performance with WUA as Analysis Object	YANG Xiao-xia(74)
Research on Mechanism of Influencing Factors of Agricultural Water Rights Exchange Based on Multi-agent Model	ZHEN Zhi-lai, HU Sen(78)
Study on Water Saving Potential of the Different Water Saving Irrigation Modes of Rice in Northern Hubei province	WANG Li-hong, LIU Lu-guang, LIU Neng-sheng, et al.(83)
Root-zone Same Height Mulching Irrigation —— A New Type Comprehensive Matching Integration Technique for Farmland Water-saving of	GAO Guo-jin, WANG Ming-ze, YANG Shu-long, et al.(86)
Design of Field Wireless Precision Irrigation System Based on MS10	WANG Bin, SUN Pei-qin, LONG Yan, et al.(92)

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: Li Yuanhua

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)