

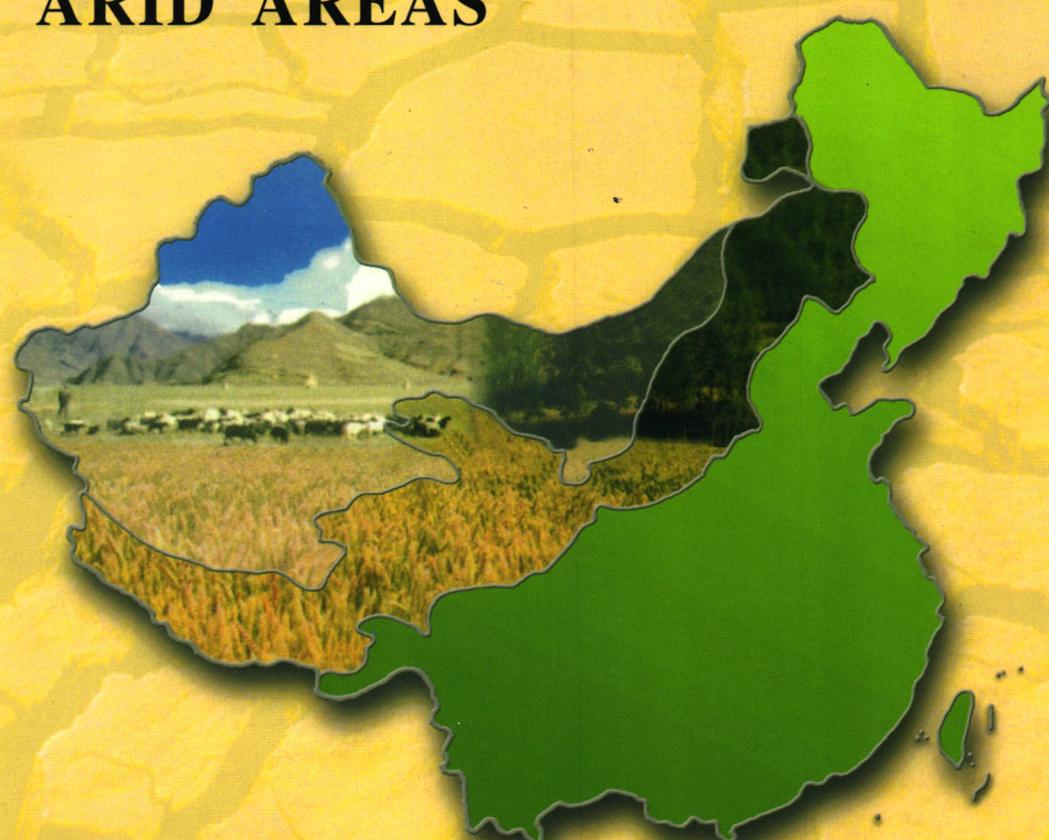
第34卷 Vol. 34

ISSN 1000-7601
CODEN GDNYEQ

干旱地区农业研究

GANHAN DIQU NONGYE YANJIU

AGRICULTURAL
RESEARCH IN
THE ARID AREAS



1

2016



万方数据

干旱地区农业研究

第34卷第1期(总第154期) 2016年1月10日出版

目 次

土壤水分与节水灌溉

- 覆膜开孔条件下植物混掺对土壤蒸发的影响 郑 健,王 燕,王笑宇,等 (1)
甘肃省参考作物蒸散量变化特征与影响因子分析 殷长琛,齐广平,康燕霞,等 (7)
干旱绿洲区枣园冠层微环境调控效应 洪 明,赵经华,马英杰,等 (16)
不同灌水量下幼龄枣树茎流变化规律 李 宏,刘 帮,程 平,等 (23)
北疆地区滴灌冬小麦农田蒸散特征 李 杰,陈 锐,吴杨焕,等 (31)
不同 ET_0 计算方法在内蒙古东部地区适用性比较 汤鹏程,何 蒙,苗 浩,等 (38)
膜下滴灌前后表层土壤水分空间变异性 谭 帅,王全九,罗小东,等 (43)
垄作沟灌条件下灌溉定额对土壤水盐分布和制种玉米耗水的影响 王增丽,朱兴平,温广贵,等 (50)
滴灌量对北疆复播大豆生长、生理特征和产量的影响 彭姜龙,张永强,王 娜,等 (55)
水氮耦合对滴灌复播油葵生长及产量的影响 权丽双,王振华,郑旭荣,等 (61)

土壤与植物营养

- 耕作层土壤养分含量的空间自相关分析——以秦安县郭嘉镇为例 陈 英,冯定邦,蔡立群,等 (66)
县域土壤有效态微量元素的空间变异特征及影响因素——以徐水县为例 张小桐,张瑞芳,王 红,等 (74)
草木樨与脱硫石膏对内蒙古盐渍化土壤的改良培肥作用与效果 温国昌,徐彦虎,林启美,等 (81)
旱地夏闲期间土壤氮素矿化特性的变化 马乐乐,夏梦洁,蒋永吉,等 (87)
集雨种植模式下不同施肥水平对土壤水分消耗及冬小麦产量的影响 王 珂,卫 婷,董昭芸,等 (93)
栽培模式、施氮量对旱作春玉米农田矿质氮和产量的影响 张 悅,岳善超,李 婷,等 (99)
微水溶性胶结包膜肥料氮素释放速率与预测 肖 强,隗公臣,吕 东,等 (108)
施磷对胡麻生长率和磷吸收利用率及其产量的影响 吴 兵,谢亚萍,牛俊义,等 (114)

耕作与栽培

- 不同地表覆盖对枣树树干液流特征的影响 唐 敏,赵西宁,吴普特,等 (120)
生物降解膜降解、保墒增温性能及对玉米生长发育进程的影响 王淑英,樊廷录,李尚中,等 (127)
不同耕作措施对旱地玉米生长环境及产量的影响 周 静,史向远,李永平,等 (134)

- 宁夏自流灌区农作物氮磷低污染种植结构优化 刘根红,许 强,乔 娜,等 (140)
不同覆盖措施对滴灌枣园土壤水热及矿质氮素的影响 马 军,雷 江,李发永,等 (147)
玉米流体穴播条件参数试验研究 辛明金,刘兰新,宋玉秋,等 (154)

植物抗逆生理

- NO₂⁻源的 NO 对镉胁迫下玉米幼苗生理的影响 贾 佳,徐一馨,李 佳,等 (159)
冬小麦碳同位素分辨率与产量、旗叶光合性状的关系 陈晓杰,张建伟,杨保安,等 (166)
干旱条件下叶片非顺序衰老小麦顶二叶叶绿素荧光特性 杨 霞,李毅博,白月梅,等 (173)
壳聚糖对盐胁迫下小麦种子萌发及幼苗生理特性的影响 王玉萍,于 丹,李 成,等 (180)
干旱高温胁迫对小麦生长及木聚糖含量的影响 张蓓蓓,张 辉,甘卓亭,等 (186)
化学联合调控对玉米光合特性及产量的影响 朱元浩,杨培岭,廖人宽,等 (193)
基于多个高光谱参数的玉米叶片叶绿素含量估测模型 武倩雯,熊黑钢,靳彦华,等 (201)

干旱监测预报

- 气候变化条件下石羊河流域农业灌溉需水量的模拟与预测 牛纪革,秉晓玲,唐泽军 (206)
基于动态模拟的冬小麦水分胁迫敏感性研究 贺 鹏,王鹏新,解 毅,等 (213)
未来气候变化对关中地区冬小麦耗水和产量的影响模拟 张 延,任小川,赵 英,等 (220)
效率系数和一致性指数及其在干旱预测精度评价中的应用 王 蕾,王鹏新,田 苗,等 (229)
基于 MOD16 产品的陕西关中地区干旱时空分布特征 何慧娟,卓 静,李红梅,等 (236)

旱区生态与资源利用

- 基于灰色关联理论 - 密切值法的大型灌区运行状况综合评价 费良军,王锦辉,王光社,等 (242)
泾惠渠灌区地下水位动态与灌溉农业的关系 王建莹,张盼盼,刘 燕 (247)
叶尔羌河流域 1990—2010 年生态环境变化特征 杜 清,徐海量,张广朋,等 (252)
不同栽培模式下甜菜和籽粒苋对次生盐渍化土壤的抑盐效应 代立兰,张怀山,夏曾润,等 (257)
压砂种植模式对地表热场景观格局的影响 候 静,杜灵通,张学俭 (264)
关中地区日光温室重金属污染及其田块尺度下的特征 唐希望,同延安,吉普辉,等 (272)
民勤绿洲农业系统变化的协整分析 李晓琳,刘晓娜,孙丹峰 (279)
基于土壤钠离子含量的不同施用量石膏改良剂的改良效果 罗小东,王全九,谭 帅 (288)

[期刊基本参数]CN61-1088/S * 1983 * b * A4 * 292 * zh * P * ¥ 20.00 * 1500 * 44 * 2016-01

AGRICULTURAL RESEARCH IN THE ARID AREAS

Vol. 34 No. 1 (Total No. 154)

January 10, 2016

CONTENTS

Soil Moisture and Water-saving Irrigation

- Evaporation from soil with plant additive under perforated plastic mulch conditions *ZHENG Jian, et al* (1)
Variation characteristics and influencing factors of evapotranspiration for reference
crops in Gansu Province *YIN Chang-chen, et al* (7)
Micro environmental regulation effect of red jujube trees' canopy in arid oasis region *HONG Ming, et al* (16)
Variability of Young jujube tree sap flow under different irrigation amount *LI Hong, et al* (23)
Evapotranspiration in a drip-irrigated winter wheat field in Northern Xinjiang *LI Jie, et al* (31)
Suitability comparison of different ET_0 estimating methods in eastern part of Inner Mongolia *TANG Peng-cheng, et al* (38)
The variability of surface layer soil water content under plastic mulch dripping before and after irrigation *TAN Shuai, et al* (43)
Effects of irrigation quota on distribution characteristics of soil water-salt and water consumption during maize seed production under ridge and furrow farming *WANG Zeng-li, et al* (50)
Effects of drip irrigation on the growth, physiological characteristics and yield of summer soybean in North Xinjiang *PENG Jiang-long, et al* (55)
Effects of water-nitrogen coupling on the growth and yield of oil sunflower in a drip-irrigated multiple cropping system *QUAN Li-shuang, et al* (61)

Soil and Plant Nutrition

- Spatial autocorrelation analysis on soil nutrient contents of plough layer *CHEN Ying, et al* (66)
Spatial variability and contributing factors of soil available micronutrients at county level *ZHANG Xiao-tong, et al* (74)
Improvement of Na_2SO_4 saline soil by *Melilotus Mill* and desulfurization gypsum in Hetao
Inner Mongolia *WEN Guo-chang, et al* (81)
Change of soil nitrogen mineralization in dryland during the summer fallow *MA Le-le, et al* (87)
Effects of fertilizer application rates on soil water use and wheat yield under ridge-furrow
practice with plastic mulching of the ridge *WANG Ke, et al* (93)
Effects of cultivation patterns and nitrogen fertilization on mineral nitrogen and yield of
dryland spring maize *ZHANG Yue, et al* (99)
Nitrogen release rate and prediction of micro water soluble cement and coated fertilizer *XIAO Qiang, et al* (108)
Effect of phosphorus fertilization on physiological parameters and yield of oilseed flax *WU Bing, et al* (114)

Tillage and Cultivation

- Effects of different surface mulching on jujube stem sap flow characteristics *TANG Min, et al* (120)
Property of biodegradable film degradation, water-retention and increasing soil temperature
and its impact on maize growth and development process *WANG Shu-ying, et al* (127)
Effects of different tillage practices on growing environment and yield of dryland maize *ZHOU Jing, et al* (134)
Cultivation structure optimization of crops with low nitrogen and phosphorus pollution in
irrigated Yellow River region of Ningxia *LIU Gen-hong, et al* (140)

Effects of covering methods on soil water, temperature and nitrogen of Jujube Orchard under drip irrigation	MA Jun , et al (147)
Experimental study on parameters of maize fluid hill-drop seeding	XIN Ming-jin , et al (154)
Plant Adverse-resistance Physiology	
Effects of nitric oxide, an indirect reaction production of NO_2^- , on the physiological functions of maize under cadmium stress	JIA Jia , et al (159)
Relationships among carbon isotope discrimination, grain yield and photosynthetic traits of flag leaves in winter wheat	CHEN Xiao-jie , et al (166)
Chlorophyll fluorescence characteristics of top two leaves in non-sequencial senescence wheat under drought condition	YANG Xia , et al (173)
Effect of chitosan on seed germination and seedling physiological characters of wheat under salt stress	WANG Yu-ping , et al (180)
Effects of water deficit and high temperature on growth and arabinoxylan concentrations in two different spring wheat varieties	ZHANG Bei-bei , et al (186)
Maize photosynthetic characteristics and yield under chemical integrated regulation	ZHU Yuan-hao , et al (193)
Prediction model on chlorophyll content in maize leaf based on several high spectral parameters	WU Qian-wen , et al (201)
Drought Monitoring and Forecast	
Simulation and estimation of impact from climatic changes on irrigation water requirement in Shiyang River Basin	NIU Ji-ping , et al (206)
Analysis on the sensitivity to water stress of winter wheat based on a dynamicsimulation model	HE Peng , et al (213)
Impact and simulation of climate change on water consumption and yield of winter-wheat in Guanzhong Region	ZHANG Yan , et al (220)
Application of the coefficient of efficiency and index of agreement on accuracy assessment of drought forecasting models	WANG Lei , et al (229)
Spatial-temporal distribution characteristics of drought in Guanzhong region of Shaanxi Province based on MOD16 products	HE Hui-juan , et al (236)
Ecology and Resource Utilization in Arid Areas	
Comprehensive evaluation on the operation condition of large irrigation district based on the grey relation theory-osculating value method	FEI Liang-jun , et al (242)
Relationship between groundwater level and irrigated agriculture in Jinghuiqu irrigation area of China	WANG Jian-ying , et al (247)
Features of eco-environmental changes in Yarkant River Basin from 1990 to 2010	DU Qing , et al (252)
Effect of <i>Beta vulgaris</i> and <i>Amaranthus hypochondriacus</i> on secondary salinization soil under different cultivation patterns	DAI Li-lan , et al (257)
Effects of cropping patterns on surface thermal landscape in gravel-sand mulching field	HOU Jing , et al (264)
Assessment of greenhouse heavy metal pollution in Guanzhong area and analysis of its spatial distribution on field scale using Geo-statistical software	TANG Xi-wang , et al (272)
Co-integration analysis of Minqin oasis agricultural systems	LI Xiao-lin , et al (279)
The effect of gypsum improver based on Na^+ concentration in soil	LUO Xiao-dong , et al (288)



主编 吴普特
副主编 贾志宽 杨改河 康振生
李占斌 马林(常务)
责任编辑 曹莉
英文编辑 权力 刘正辉

- 《中文核心期刊要目总览》农业科学核心期刊
- 国家科技部“中国科技核心期刊”
- “中国期刊方阵”双效期刊
- 全国首届优秀科技期刊
- 科技部“中国精品科技期刊”
- 教育部“中国高校优秀科技期刊”
- 《中国科学引文数据库》源期刊并进入“影响因子、被引频次最高的中国科技期刊前300名排行榜”
- 《中国学术期刊综合评价数据库》源期刊
- 《中国学术期刊(光盘版)》、《中国期刊网》全文收录期刊
- 俄罗斯《文摘杂志》(AJ)收录期刊

干旱地区农业研究

AGRICULTURAL RESEARCH IN THE ARID AREAS

双月刊 1983 年创刊
第 34 卷 第 1 期(总第 154 期)
2016 年 1 月 10 日出版

Bimonthly Started in 1983
Vol.34 No.1 (Total 154)
January 10, 2016

主管单位 中华人民共和国教育部
主办单位 西北农林科技大学
编 辑 版 《干旱地区农业研究》编辑部
出 版 地址:陕西杨凌西北农林科技大学
印刷装订 南校区 1-14 号信箱
国内订阅 邮政编码:712100
国外发行 电话(传真):029-87082121
网 址 E-mail: ghbjb@nwsuaf.edu.cn

印刷装订 陕西森奥印务有限公司
国内订阅 全国各地邮政局
国外发行 邮发代号: 52-97
网 址 中国国际图书贸易集团有限公司
http://ghdqnyyj.ijournal.cn

Administrated by
Ministry of Education of the People's Republic of China
Sponsored by
Northwest A & F University
Edited by
Editorial Department of Agricultural Research in the Arid Areas (Yangling, Shaanxi, China. Postcode 712100,
Tel. & Fax: 029-87082121)
E-mail: ghbjb@nwsuaf.edu.cn
Printed by Shaanxi Senao Printing Co.,Ltd.
Distributed by
China International Book Trading Corporation
(Beijing, China)
Website http://ghdqnyyj.ijournal.cn

ISSN 1000-7601
CN 61-1088/S

公开发行

广告许可证: 杨工商广字第 6104031000013 号

国内定价: 20.00 元