

农业工程

AGRICULTURAL ENGINEERING

NONGYE GONGCHENG

5
2013

第3卷 Vol.3

YANMAR
Solutioneering Together

洋马AW82G全喂入联合收割机

全新登场

AW82G 高效型

一机多用

适合油菜、小麦、水稻等收割



ISSN 2095-1795



0 9>

9 772095 120138
万方数据

洋马农机(中国)有限公司
YANMAR AGRICULTURAL EQUIPMENT (CHINA) CO., LTD.

地址:江苏省无锡新区黄山路8号 | 邮编:214028 | 电话:0510-85216877(销售专线) | 传真:0510-85218154 | <http://cn.yanmar.com/>

农业工程

NONGYE GONGCHENG

2013 年 第 5 期(第 3 卷)

目 次

• 综述与评析 •

我国稻麦油机械化收获技术研究现状与趋势	李海同 黄 鹏 舒彩霞 (1)
我国草莓生物技术研究进展	马宗新 (7)
利用污水养殖微藻研究进展	梅 帅 赵凤敏 曹有福 等 (12)

• 装备与机械化 •

油菜钵苗物理机械特性试验研究	向 伟 吴明亮 庞晓远 等 (17)
浙江省丘陵山区农业机械化发展对策	郑文钟 陈新荣 (21)
富阳市农机购置补贴工作成效、问题与对策	金 钟 (25)
广东湛江农垦甘蔗全程机械化的现状与思考	胡 乔 华荣江 姜贵川 等 (28)
乌苏市农业机械化发展现状及建议	李晓丽 (30)
北方寒地大垄垄上行间覆膜机规模应用注意事项	杨富江 牛 爽 (32)
玉米收获机械发展现状及建议	王瑛瑶 张翠萍 (34)
乌苏市提高农机田间作业质量的做法及建议	赵丽霞 (37)
推进青岛市经济作物机械化的思考	姜 彦 荆立军 崔永利 (39)
小 4 行玉米收获机技术发展	邓志刚 樊 禹 赵迎斌 等 (41)
武威市草食畜产业机械化现状及发展建议	吴玉红 (43)

• 管理工程 •

乌苏市农机市场监管现状及发展建议	李 艳 (45)
------------------------	------------

• 信息与电气化 •

电力机车空调逆变电源设计	巩婷婷 王桂英 (47)
PLC 在机电设备故障诊断中的应用	杨志平 (50)
基于物联网技术的江西丘陵地区土壤墒情监测	张 帆 肖志锋 (53)

• 生物环境与能源 •

VOCs 污染场地修复过程典型环节风险控制	贾建丽 翟宇嘉 房增强 等 (55)
太阳热水及热空气利用系统与建筑结合一体化	韩雷涛 范海东 张 瑾 等 (60)
纤维素酶水解技术在大型秸秆沼气工程中的应用	刘乃刚 (64)

• 农副产品加工与贮藏 •

猪肉干发酵工艺	王 磊 赵丽艳 刘长姣 等 (68)
马铃薯薯饼加工技术研究现状及发展对策	杨 鸢 杨炳南 杨延辰 等 (72)
问题食用油仪器分析方法研究进展	潘红红 梁 润 万渝平 (76)

• 食品科学与工程 •

冷冻丙酮法分离杜仲子油中 α -亚麻酸工艺	吴丽雅 黄 群 余 佶 等 (81)
超声-微波辅助提取木棉花多糖工艺	陈 瑜 真灵娟 林玉青 等 (86)
木糖醇全麦面包工艺	朱海霞 程丽丽 (92)

• 水土工程 •

农田水利工程与生态系统的协调发展 李彦霞 (96)
乌苏市实施地表水滴灌技术调研 苏 菲 (98)

• 土地资源管理 •

重庆市宅基地复垦中撤出物利用 乔 亮 高 明 张 宏 等 (100)

• 设计制造及理论研究 •

9QZ500 型切枝机设计与试验 周树辉 李树君 景全荣 等 (105)
秸秆铺放式玉米收获机设计 宋振强 张智芬 (110)
穴式铺膜播种机设计问题研究 黄若忱 (113)
SolidWorks 管路设计在污水处理设备中的应用 安喜平 王 志 张 辉 等 (116)
4GL-140 型胡麻收割机研制开发 杜 婵 (119)
家电产品中的塑料件结构设计质量优化与创新 李兆勇 屈 波 (122)

• 教学研究 •

校内外实习基地建设在食品工程硕士培养中的作用 邓 红 贺小化 王玉珠 等 (125)

• 农学与生物技术 •

植物组培快繁褐化现象研究进展 张宏平 姬爱国 和林涛 (128)
控释氮肥施用方式及用量对玉米干物质积累及子粒产量的影响 高 敏 朱庚振 邹皆明 (133)
沿海围垦地火龙果园套种冬瓜技术 林新钦 彭建平 林志敏 等 (136)
荷兰豆种植技术 杨 俊 (138)

• 农业经济管理 •

休闲农业企业融资策略 高倩文 李桂兰 (140)
南通市现代农业产业体系及其开发 茅丽华 (144)
长春市城镇化发展对农民工资性收入的影响 杨 静 姜会明 (148)
中国农产品国际贸易分析 陈易琦 周振波 (151)
贵州省盘县旧营乡养羊业现状及对策 牟锦繁 李仲佰 (153)
膨化玉米在狐貉饲料市场的经济性分析 石 强 (156)

• 国外研究 •

基于哈格里夫斯法评价印度普萨参考蒸散量 (摘选)
..... Sudarshan Prasad Vishal Kumar Ashok Kumar Sinha 等 (159)
MF 公司 2100 系列新型长方捆打捆机 张乐佳 吴清分 (162)

• 专著点评 •

一部研究宅基地使用权制度的力作
——读《转型期宅基地使用权制度研究》有感 胡 勇 (166)

• 企业风采 •

佳美传奇——佳多科工贸有限责任公司发展侧记 王艳红 赵慧媛 (前插 5)
东方红柴油机内外兼修 提升综合竞争力 孙战胜 (168)

• 行业动态 •

第四届全国现代物理农业工程技术发展研讨会圆满召开 张 强 (前插 8)

AGRICULTURAL ENGINEERING

Vol. 3 No. 5 2013

Contents

Review and Comments

Research Status Quo and Development Trends of Harvesting Mechanization Technology on Rice, Wheat and Rape in China	Li Haitong et al (1)
Research Progress of Strawberry Biological Technology in China	Ma Zongxin (7)
Research Progress of Microalgae Cultivation by Wastewater	Mei Shuai et al (12)

Equipment and Mechanization

Experiment Study of Physical and Mechanical Characteristics of Rape Pot Seedling	Xiang Wei et al (17)
Countermeasure about Development of Agricultural Mechanization of both Hilly and Mountain Areas in Zhejiang Province	Zheng Wenzhong et al (21)
Effect and Problems with Measure of Purchasing Subsidy of Agricultural Machinery in Fuyang City	Jin zhong (25)
Current Situation and Thinking of Sugarcane Mechanization in Zhanjiang Agricultural Reclamation in Guangdong Province	Hu Qiao et al (28)
Development Status Quo and Suggestions of Agricultural Mechanization in Wusu City	Li Xiaoli (30)
Scale Application Note of Mulching Machine on Big Ridge in Northern Cold Area	Yang Fujiang et al (32)
Development Status Quo and Suggestions of Corn Harvester	Wang Yingyao et al (34)
Practices and Suggestions on Improving Quality of Agricultural Machinery Work in Wusu City	Zhao Lixia (37)
Thinking about Promoting Mechanization of Economic Crop Production in Qingdao City	Jiang Yan et al (39)
Technology Development of Small Four Rows Corn Harvester	Deng Zhigang et al (41)
Status Quo and Development Suggestions on Herbivorous Livestock Industrial Mechanization of Wuwei City	Wu Yuhong (43)

Management Engineering

Status Quo and Development Suggestion of Agricultural Market Supervision in Wusu City	Li Yan (45)
---	---------------

Information and Electrification

Design of Inverter for Electric Locomotive Air-Conditioner	Gong Tingting et al (47)
Application of PLC in Fault Diagnosis of Electromechanical Equipment	Yang Zhiping (50)
Soil Moisture Monitoring in Hilly Area of Jiangxi Province Based on Internet of Things Technology	Zhang Fan et al (53)

Biological Environment and Energy

Environmental Risk Control of Typical Units during Remediation of VOCs Contaminated Sites	Jia Jianli et al (55)
Building Integration of Solar Heater Water and Air	Han Leitao et al (60)
Application of Cellulase Hydrolysis Technology in Large Scale Biogas Engineering	Liu Naigang (64)

Processing and Storage of Farm and Sideline Products

Fermenting Technology of <i>L. acidophilus</i> and <i>S. carnosus</i> in Pork Jerky	Wang Lei et al (68)
Problems and Countermeasures of Potato-cake Processing Technology	Yang Yang et al (72)
Research Advance in Instrument Method for Edible Oil	Pan Honghong et al (76)

Food Science and Engineering

Separation of α -Linolenic Acid from Eucommia Seed Oil by Freezing Acetone Method	Wu Liya et al (81)
--	----------------------

Ultrasonic- Microwave- Assisted Extraction Process of Polysaccharides
from *Bombax ceiba* Chen Yu et al (86)
Process of Xylitol Whole Wheat Bread Zhu Haixia et al (92)

Water- soil Engineering

Coordinated Development of Water Conservancy and Irrigation and Ecosystem Li Yanxia (96)
Research and Implementation of Surface Water Irrigation Technology in Wusu City Su Fei (98)

Land Resource Management

Withdrawal Material Utilization of Homestead Land Reclamation in Chongqing City Qiao Liang et al (100)

Design , Manufacture and Theoretical Research

Design and Experiment on 9QZ500 Type Mobile Branch Chipper Zhou Shuhui et al (105)
Design of Straw Laying Corn Harvester Song Zhenqiang et al (110)
Research on Some Problems of Hole Type Membrane Seeder Huang Ruochen (113)
Application of SolidWorks Pipe Routing in Sewage Treatment Equipment An Xiping et al (116)
Research and Development of 4GL-140 Type Flax Harvester Du Chan (119)
Improvement and Innovation of Constructional Designing Quality for Plastic Parts of
Household Electrical Appliances Li Zhaoyong et al (122)

Research on Teaching

Roles of Practice Base Construction on Training of Food Engineering Master Deng Hong et al (125)

Agronomy and Biotechnology

Research Progress of Browning Phenomenon about Plant Tissue Culture Zhang Hongping et al (128)
Effects of Methods and Rates of Controlled Release Urea on Dry Matter Accumulation
and Yield of Maize Gao Min et al (133)
Technique of Interplanting Wax Gourd in Coastal Polder Pitaya Orchard Lin Xinqin et al (136)
Planting Technology of Snow Peas Yang Jun (138)

Management of Agricultural Economy

Financing Strategy of Leisure Agriculture Enterprise Gao Qianwen et al (140)
Modern Agriculture Industry System and Its Development Problems in Nantong City of
Jiangsu Province Mao Lihua (144)
Impact of Urbanization Development on Farmers’ Wage Income in Changchun City Yang jing et al (148)
Analysis of Chinese Agricultural Products International Trade Chen Yiqi et al (151)
Status Quo and Countermeasures of Sheep Industry of Jiuying Township in Pan County ,
Guizhou Province Mu Jinfan et al (153)
Economic Analysis of Puffed Corn in Fox Raccoon Feed Market Shi Qiang (156)

Foreign Research

Evaluation of Hargreaves Method for Estimating Reference Evapotranspiration at Pusa ,
India (Extracts) Sudarshan Prasad et al (159)
2100 Series New Rectangular Bales Baler of MF Company Zhang Lejia et al (162)

Monograph Comment

An Impressive- sounding Book on the System of Rural Homestead- land- use- right; Pondering after Reading
‘ Study on the System of Rural Homestead- land- use- right with the Social Transition ’ Hu Yong (166)