

全国中文核心期刊
中国科技核心期刊
中国农业核心期刊
RCCSE中国核心学术期刊
中国科学引文数据库 (CSCD) 期刊
CAB International 收录期刊
美国《生物学文摘》收录期刊
美国《化学文摘》(CA) 收录期刊

首页 (/) 期刊介绍 (/Corp/10.aspx) 编委会 投稿须知 期刊订阅 广告合作 联系我们 返回主站 (/Corp/3600.aspx) (/Corp/5006.aspx) (/Corp/50.aspx) (<http://www.haasep.cn/>)

[«上一篇 \(DArticle.aspx?](#)

type=view&id=201506020)

[下一篇 \(DArticle.aspx?](#)

type=view&id=201506022)



PDF下载 (pdfdown.aspx?

Sid=201506021)

+分享

([http://www.jiathis.com/share?](http://www.jiathis.com/share?uid=1541069)
uid=1541069)



微信公众号：大豆科学

[1]牛媛媛,徐铭辰,陈海涛,等.两种大豆免耕播种机在黄淮海地区的适应性试验与分析[J].大豆科学,2015,34(06):1039-1046.
[doi:10.11861/j.issn.1000-9841.2015.06.1039]

NIU Yuan-yuan,XU Ming-chen,CHEN Hai-tao,et al.Adaptability Test and Analysis of Two Kinds of No-till Planter of Soybean in Huang-Huai-Hai Region[J].Soybean Science,2015,34(06):1039-1046.[doi:10.11861/j.issn.1000-9841.2015.06.1039]

点击复制

两种大豆免耕播种机在黄淮海地区的适应性试验与分析

《大豆科学》 [ISSN:1000-9841 /CN:23-1227/S] 卷: 第34卷 期数: 2015年06期 页码: 1039-1046 栏目:
出版日期: 2015-12-25

Title: Adaptability Test and Analysis of Two Kinds of No-till Planter of Soybean in Huang-Huai-Hai Region

作者: 牛媛媛¹ (KeySearch.aspx?type=Name&Sel=牛媛媛); 徐铭辰¹ (KeySearch.aspx?type=Name&Sel=徐铭辰); 陈海涛² (KeySearch.aspx?type=Name&Sel=陈海涛); 吴存祥³ (KeySearch.aspx?type=Name&Sel=吴存祥); 余永昌¹ (KeySearch.aspx?type=Name&Sel=余永昌)

1.河南农业大学 机电工程学院,河南 郑州 450002;
2.东北农业大学 工程学院,黑龙江 哈尔滨 150030;
3.中国农业科学院 作物科学研究所,北京 100081

Author(s): NIU Yuan-yuan¹ (KeySearch.aspx?type=Name&Sel=NIU Yuan-yuan); XU Ming-chen¹ (KeySearch.aspx?type=Name&Sel=XU Ming-chen); CHEN Hai-tao² (KeySearch.aspx?type=Name&Sel=CHEN Hai-tao); WU Cun-xiang³ (KeySearch.aspx?type=Name&Sel=WU Cun-xiang); YU Yong-chang¹ (KeySearch.aspx?type=Name&Sel=YU Yong-chang)

1.College of Mechanical & Electrical Engineering of Henan Agricultural University, Zhengzhou 450002, China;

2.College of Engineering of Northeast Agricultural University, Heilongjiang, Harbin 150030, China;

3.Institute of Crop Science Chinese Academy of Agricultural Sciences, Beijing 100000, China

关键词: 保护性耕作 (KeySearch.aspx?type=KeyWord&Sel=保护性耕作); 疏花地 (KeySearch.aspx?type=KeyWord&Sel=疏花地); 大豆免耕播种机 (KeySearch.aspx?type=KeyWord&Sel=大豆免耕播种机); 田间试验 (KeySearch.aspx?type=KeyWord&Sel=田间试验); 适应性 (KeySearch.aspx?type=KeyWord&Sel=适应性)

Keywords: Conservation tillage (KeySearch.aspx?type=KeyWord&Sel=Conservation tillage); Wheat stubble land (KeySearch.aspx?type=KeyWord&Sel=Wheat stubble land); Soybean no-till planter (KeySearch.aspx?type=KeyWord&Sel=Soybean no-till planter); Field test (KeySearch.aspx?type=KeyWord&Sel=Field test); Adaptability (KeySearch.aspx?type=KeyWord&Sel=Adaptability)

DOI: 10.11861/j.issn.1000-9841.2015.06.1039 (<http://dx.doi.org/10.11861/j.issn.1000-9841.2015.06.1039>)

文献标志码: A

摘要: 为了在黄淮海旱作区更好地实施保护性耕作技术,同时又能满足该地区农民对大豆免耕播种机的使用需求,参照免耕播种机的国家标准和农业部农机试验鉴定总站制定的免耕播种机播种质量的检测指标和方法,对目前在黄淮海地区使用的2BMFJ-6/12型全还田缠绕免耕播种机和2BMFJ-6型麦茬地大豆免耕覆秸施肥播种机进行了田间试验,考察了这两种大豆免耕播种机在黄淮海地区的适应性,并对这两种机型的性能进行了分析。通过对两种大豆免耕播种机的机具通过性、播种均匀性、种肥深度、晾籽情况等性能的研究,这两种大豆免耕播种机虽然工作原理不同,有各自的优缺点,但这两款大豆免耕播种机的性能参数均能达到国家标准,个别指标甚至优于国家标准,在黄淮海地区的适应性都比较强,均能够实现精量播种。

Abstract: In order to better promote the implementation of conservation tillage technology in Huang-Huai-Hai dry farming region, also want to solve the farmers in the area of no tillage planter technology of soybean demand. For the two kinds of soybean no tillage planter currently used in Huang-Huai-Hai area, this paper describes the 2BMFJ-6/12 type no-till planter field winding and 2BMFJ-6 type soybean Stubble Wheat Straw Covered no-till seeding machine working principle and field test. According to the quality of no tillage planter seeding detection index and method of provisions of the Ministry of agriculture agricultural machinery testing center and the national standard. On the adaptability of two kinds of soybean no tillage seeder in Huang-Huai-Hai area were studied and analyzed. The applicability of the two soybean no tillage seeder in Huang-Huai-Hai region were researched and analyzed, and had carried on the comparative analysis of the performance of the two models. Through the equipment of two kinds of soybean planter's uniform seeding, kind of fat depth, dry seeds of performance research, drew such a conclusion: Although the work principle of the two soybean no tillage planter were different, had their respective advantages and disadvantages, but these two kinds of no tillage soybean sowing machine performance parameters could meet the requirements of national standards, and even individual indicators numerical were better than the national standard, so these two kinds of no tillage soybean sowing machine in Huang-Huai-Hai region adaptability was strong, could realize the requirement of precision sowing.

参考文献/References:

- [1]高焕文,李洪文,李问盈,等.保护性耕作的发展[J].农业机械学报,2008,39(9):43-48.(Gao H W, Li H W, Li H Y, et al. Development of conservation tillage [J]. Transactions of the Chinese Society for Agricultural Machinery, 2008, 39 (9): 43-48.)
- [2]李卫东,张孟臣.黄淮海夏大豆及品质参数[M].北京:中国农业科学技术出版社,2006. (Li W D, Zhang M C. Huang-Huai-Hai summer soybean and quality parameters [M]. Beijing: Chinese Agricultural Science and Technology Press, 2006.)

- [3] 廖庆喜, 高焕文, 舒彩霞. 免耕播种机防堵技术研究现状与发展趋势 [J]. 农业工程学报, 2004, 20(1): 108-111. (Liao Q X, Gao H W, Shu C X. Present situations and prospects of anti-blocking technology of no-tillage planter [J]. Transactions of the CSAE, 2004, 20(1): 108-111.)
- [4] 贾延明, 尚长青, 张振国. 保护性耕作适应性试验及关键技术研究 [J]. 农业工程学报, 2002, 18 (1) : 78-81. (Jia Y M, Shang C Q, Zhang Z G. Adaptability test and key technology research on conservation tillage [J]. Transactions of the CSAE, 2002, 18 (1): 78-81.)
- [5] 刘博. 农业机械适用性评价指标制定方法的研究 [D]. 北京: 中国农业大学, 2009. (Liu B. To study and formulate methods for agricultural machinery applicability evaluation index [D]. Beijing: China Agricultural University, 2009.)
- [6] 李卫, 李向盈, 孙先鹏. 几种圆盘驱动耙开沟性能的土壤试验比较 [J]. 农业化研究, 2008(8): 127-129, 133. (Li W, Li X P. Experiment study on seed dispensing performance of pneumatic seeding equipment with declined disc [J]. Journal of Agricultural Mechanization Research, 2008(8): 127-129, 133.)
- [7] 王庆杰, 何进, 姚宗路, 等. 驱动圆盘式玉米垄作免耕播种机设计与试验 [J]. 农业机械学报, 2008, 39 (6) : 68-72. (Wang Q J, He J, Yao Z L, et al. Design and experiment on powered disc no-tillage planter for ridge-tillage [J]. Transactions of the Chinese Society for Agricultural Machinery, 2008, 39 (6) : 68-72.)
- [8] 吴存祥, 李继存, 沙爱华, 等. 国家大豆品种区域试验对照品种的生育期组归属 [J]. 作物学报, 2012, 38 (1) : 1977-1987. (Wu C X, Li J C, Sha A H, et al. Maturity group classification of check varieties in National Soybean Uniform Trials of China [J]. Acta Agronomica Sinica, 2012, 38 (1) : 1977-1987.)
- [9] 中华人民共和国农业部. 中华人民共和国农业行业标准. NY/T 1645-2008, 谷物联合收割机适用性评价方法 [S]. (Ministry of Agriculture of the People's Republic of China. The People's Republic of China Agricultural Industry Standard . NY/T1641-2007. Wheat No-till Planter Quality Specification [S]. 2008.)
- [10] 中华人民共和国农业部, 中华人民共和国国家标准. GB/T 9478-2005, 谷物条播机试验方法 [S]. 2005. (Ministry of Agriculture of the People's Republic of China. The People's Republic of China National Standard GB/T 9478-2005. Methods the Drill Test Crops [S]. 2005.)
- [11] 中华人民共和国农业部, 中华人民共和国国家标准. GB/T 20865-2007, 免耕施肥播种机 [S]. 2007. (Ministry of Agriculture of the People's Republic of China. The People's Republic of China National Standard. GB/T 20865-2007. No-till Fertilizing and Seeding Machine [S]. 2007.)
- [12] 中华人民共和国农业部, 中华人民共和国农业部技术规范. 2007年小麦免耕播种机机型大纲. 2007. (Ministry of Agriculture of the People's Republic of China. The People's Republic of China Ministry of Agriculture Technical Specification. Wheat No-till Planter Program Selection. 2007.)
- [13] 中华人民共和国农业部, 农业机械试验鉴定办法. 2005 (Ministry of Agriculture of the People's Republic of China Agricultural Machinery Testing and Appraisal Methods. 2005.)
- [14] 张喜瑞, 李洪文, 何进, 等. 小麦免耕播种机防堵装置性能对比试验 [J]. 农业机械学报, 2010, 41 (2) : 73-77. (Zhang X R, Li H W, He J, et al. Comparative experiment on anti-blocking mechanism for wheat no-till planter [J]. Journal of Agricultural Machinery, 2010, 41 (2): 73-77.)
- [15] 王汉羊. 2BMFJ-3型麦茬地免耕覆秸大豆精密播种机的研究 [D]. 哈尔滨: 东北农业大学, 2012. (Wang H Y. Study on 2BMFJ-3 type no-till soybean precision planter with straw-covering in wheat stubble fields [D]. Harbin: Northeast Agricultural University, 2012.)
- [16] 魏延富, 高焕文, 李洪文. 三种一年两熟地区小麦免耕播种机适应性试验与分析 [J]. 农业工程学报, 2005, 21(1): 97-101. (Wei Y F, Gao H W, Li H W. Experiment and analyses of the adaptabilities of three wheat no-tillage drills on corn stubble in the areas with two ripe crops a year [J]. Transactions of the Chinese Society of Agricultural Engineer, 2005, 21(1): 97-101.)

相似文献/References:

- [1] 纪文义, 陈海涛, 李卓, 等. 麦茬地免耕覆秸播种机生产考核试验[J]. (article.aspx?type=view&id=201403028) 大豆科学, 2014, 33 (03):417. [doi:10.11861/j.issn.1000-9841.2014.03.0447]
JI Wen-yi, CHEN Hai-tao, LI Zhuo, et al. Producing and Examining Test on No till Straw covering Planter in Wheat Stubble Fields[J]. Soybean Science, 2011, 33 (06):447. [doi:10.11861/j.issn.1000-9841.2014.03.0447]
- [2] 刘爽, 张兴义. 保护性耕作对黑土农田土壤水热及作物产量的影响[J]. (article.aspx?type=view&id=201101012) 大豆科学, 2011, 30 (01):56. [doi:10.11861/j.issn.1000-9841.2011.01.0056]
LIU Shuang, ZHANG Xing-yi. Effect of Conservation Tillage on Soil Temperature, Water Content and Yield in Arable Black Soil[J]. Soybean Science, 2011, 30 (06):56. [doi:10.11861/j.issn.1000-9841.2011.01.0056]
- [3] 牛媛媛, 徐铭辰, 陈海涛, 等. 2BMFJ-6型免麦茬地大豆免耕播种机适应性研究[J]. (article.aspx?type=view&id=201503025) 大豆科学, 2015, 34 (03):497. [doi:10.1861/j.issn.1000-9841.2015.03.0497]
NIU Yuan-yuan, XU Ming-chun, CHEN Hai-tao, et al. Study on the Adaptability of 2BMFJ-6 Type No-till Soybean Precision Planter with Straw-Covering in Wheat Stubble Fields[J]. Soybean Science, 2015, 34 (06):497.
[doi:10.1861/j.issn.1000-9841.2015.03.0497]

备注/Memo 基金项目: 国家现代农业产业技术体系建设专项(CARS-04); 国家公益性行业(农业)科研专项基金(201303011-4)。

第一作者简介: 牛媛媛(1987-), 女, 硕士, 主要从事覆秸式大豆免耕播种机适应性研究。E-mail: 874086154@qq.com。

通讯作者: 余永昌(1955-), 男, 教授, 博导, 主要从事农业装备与机器系统研究。E-mail: hnyych@163.com。

更新日期/Last Update: 2016-01-07