

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=200705011)

[下一篇 \(DArticle.aspx?](#)

type=view&id=200705013)



PDF下载 ([pdfdown.aspx?](#)

Sid=200705012)

+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] 冯乃杰, 孙晓姝, 宋柏权, 等. 调节剂对大豆产量形成的影响及其机理研究 [J]. 大豆科学, 2007, 26(05):700-704.
[doi:10.3969/j.issn.1000-9841.2007.05.012]
FENG Nai-jie, SUN Cong-shu, SONG Bai-quan, et al. EFFECT AND MECHANISM OF REGULATOR ON SOYBEAN YIELD FORMATION [J]. Soybean Science, 2007, 26(05):700-704. [doi:10.3969/j.issn.1000-9841.2007.05.012]

点击复制

调节剂对大豆产量形成的影响及其机理研究

《大豆科学》 [ISSN:1000-9841 /CN:23-1227/S] 卷: 第26卷 期数: 2007年05期 页码: 700-704 栏目:
出版日期: 2007-10-25

Title: EFFECT AND MECHANISM OF REGULATOR ON SOYBEAN YIELD FORMATION

文章编号: 1000-9841(2007)05-0700-05

作者: 冯乃杰¹ (KeySearch. aspx?type=Name&Sel=冯乃杰);² 孙晓姝¹ (KeySearch. aspx?type=Name&Sel=孙晓姝); 宋柏权² (KeySearch. aspx?type=Name&Sel=宋柏权); 沈雪峰² (KeySearch. aspx?type=Name&Sel=沈雪峰); 郑殿峰² (KeySearch. aspx?type=Name&Sel=郑殿峰); 祖伟¹ (KeySearch. aspx?type=Name&Sel=祖伟)

1. 东北农业大学农学院, 哈尔滨 150030;
2. 黑龙江八一农垦大学植物科技学院化控室, 大庆 163319

Author(s): FENG Nai-jie¹ (KeySearch. aspx?type=Name&Sel=FENG Nai-jie);² SUN Cong-shu¹ (KeySearch. aspx?type=Name&Sel=SUN Cong-shu); SONG Bai-quan² (KeySearch. aspx?type=Name&Sel=SONG Bai-quan); SHEN Xue-feng² (KeySearch. aspx?type=Name&Sel=SHEN Xue-feng); ZHENG Dian-feng² (KeySearch. aspx?type=Name&Sel=ZHENG Dian-feng); ZU Wei¹ (KeySearch. aspx?type=Name&Sel=ZU Wei)

1. Northeast Agricultural University, Harbin 150030,
2The Chemical Control Room College of Plant science &Technology, Heilongjiang August First Land Reclamation University, Daqing 163319

关键词: 调节剂 (KeySearch. aspx?type=KeyWord&Sel=调节剂); 大豆 (KeySearch. aspx?type=KeyWord&Sel=大豆); 产量 (KeySearch. aspx?type=KeyWord&Sel=产量); 机理 (KeySearch. aspx?type=KeyWord&Sel=机理)

Keywords: Regulator (KeySearch. aspx?type=KeyWord&Sel=Regulator); Soybean (KeySearch. aspx?type=KeyWord&Sel=Soybean); Yield (KeySearch. aspx?type=KeyWord&Sel=Yield); Mechanism (KeySearch. aspx?type=KeyWord&Sel=Mechanism)

分类号: S565. 106. 2

DOI: 10.3969/j.issn.1000-9841.2007.05.012 (<http://dx.doi.org/10.3969/j.issn.1000-9841.2007.05.012>)

文献标志码: A

摘要: 以大豆品种垦农5号、垦农18、垦鉴豆21、东农42为材料, 研究了植物生长调节剂对不同大豆品种某些生理指标、产量性状和产量的影响。结果表明: 叶面喷施调节剂促进了大豆叶片的光合速率, 提高了大豆叶片的可溶性糖、可溶性蛋白含量; 增加了大豆植株的干物质积累, 对大豆产量构成因素株荚数、株粒数、百粒重等具有一定的调控作用, 提高了大豆产量。调节剂对不同大豆品种增产幅度不同, 其中垦农5号、垦农18、垦鉴豆21产量与对照相比差异达到显著水平。

Abstract: Taking Kennong 5, Kennong 18, Kenjiandou 21 and Dongnong 42 as experiment materials, the effect of regulator on soybean physiological characteristics, yield characters and yield were studied. The result indicated that when applied growth regulators, the photosynthetic rate was obviously promoted, the soluble protein and the soluble sugar content of soybean were increased; the yield components such as pod per plant, seed weight per plant and 100-seed weight were improved. Compared with the contrast, the yield of Kennong 5, Kennong 18 and Kenjiandou 21 reached 0.05 significant levels.

参考文献/References:

- [1] 王金陵, 杨庆凯, 吴宗璞. 中国东北大豆[M]. 哈尔滨: 黑龙江科学技术出版社, 1999: 10.
- [2] 吴奇峰, 何桂红, 董志新, 等. 植物生长调节剂在我国大豆种植上的研究与应用[J]. 作物杂志, 2005, (1): 12-15.
- [3] 陈大清, 李亚男, 彭成林. 烟效唑对大豆生长特性和产量的影响[J]. 湖北农学院学报, 2000, 20(6):108-110, 114.
- [4] 许艳丽, 李兆林, 韩晓增, 等. 壮丰安对大豆生长发育及产量的调控研究[J]. 大豆科学, 1999, 18(4):355-360.
- [5] 陈新红, 章建新, 闫晓红, 等. 壮丰安对大豆增产效应的研究[J]. 新疆农业大学学报, 2001, 24(4):29-32.
- [6] 蒋莲芝, 樊亚娟, 刘俊环, 等. 大豆应用多效唑试验效果初[J]. 大豆通报, 2001, (5):6.
- [7] 王俊平, 翟志席, 何钟佩, 等. DTA-6对紫花苜蓿粗蛋白和氨基酸含量的调控作用[J]. 中国农业大学学报, 2003, 8(3):25-28.
- [8] 张明才, 何钟佩, 田晓莉, 等. 植物生长调节剂DTA-6在甜豌豆上的应用效果[J]. 农药学学报, 2001, 3(4):53.
- [9] 张宪政作物生理研究法[M]. 北京: 中国农业出版社, 1992: 10.
- [10] 王熹, 俞美玉, 陶龙兴. 烟效唑对稻苗的生物学效应[J]. 中国水稻科学, 1993, 7(4):199-204.
- [11] 刘亚丽, 李学梅, 姬生栋, 等. 植物生长调节剂对小麦叶片衰老过程中生理特性的影响[J]. 河南农业科学, 2005, 8:29-32.
- [12] 王光泽, 张树芹. 不同蛋白质含量小麦品种叶片RNA与氮素积累关系的研究[J]. 西北植物学报, 1999, 19(2):315-320.
- [13] 张明才, 李召虎, 田晓莉, 等. 植物生长调节剂SHK-6对大豆叶片氮素代谢的调控效应[J]. 大豆科学, 2004, 23(1):15-20.
- [14] 金剑, 刘晓冰, 王光华. 不同熟期大豆 R_4-R_5 期冠层某些生理生态性状与产量的关系[J]. 中国农业科学, 2004, 37(9):1293-1300.

- [15]Upmeyer D J, Koller H R.Diurnal trends in net photosynthetic rate and carbohydrate levels of soybean leaves[J]. Plant Physiology, 1973, 51:871-874.
- [16]Fulai L, Christian R.Jensen, Mathias N.Pod set related to photosynthetic rate and endogenous ABA in soybeans subjected to different water regimes and exogenous ABA and BA at early reproductive stages[J].Annals of Botany, 2004, 94(3):405-411.
- [17]Jiang H F, Egli D B.Soybean seed number and crop growth rate during flowering[J].Agronomy Journal, 1995, 87:164-167.

相似文献/References:

- [1]刘章雄,李卫东,孙石,等.1983~2010年北京大豆育成品种的亲本地理来源及其遗传贡献[J]. (darticle.aspx?type=view&id=201301001) 大豆科学, 2013, 32(01):1. [doi:10.3969/j.issn.1000-9841.2013.01.002]
- LIU Zhang-xiong, LI Wei-dong, SUN Shi, et al.Geographical Sources of Germplasm and Their Nuclear Contribution to Soybean Cultivars Released during 1983 to 2010 in Beijing[J].Soybean Science, 2013, 32(05):1. [doi:10.3969/j.issn.1000-9841.2013.01.002]
- [2]李彩云,余永亮,杨红旗,等.大豆脂质转运蛋白基因GmLTP3的特征分析[J]. (darticle.aspx?type=view&id=201301002) 大豆科学, 2013, 32(01):8. [doi:10.3969/j.issn.1000-9841.2013.01.003]
- LI Cai-yun, YU Yong-liang, YANG Hong-qi, et al.Characteristics of a Lipid-transfer Protein Gene GmLTP3 in Glycine max[J].Soybean Science, 2013, 32(05):8. [doi:10.3969/j.issn.1000-9841.2013.01.003]
- [3]王明霞,崔晓霞,薛晨晨,等.大豆耐盐基因GmHAL3a的克隆及RNAi载体的构建[J]. (darticle.aspx?type=view&id=201301003) 大豆科学, 2013, 32(01):12. [doi:10.3969/j.issn.1000-9841.2013.01.004]
- WANG Ming-xia,CUI Xiao-xia,XUE Chen-chen, et al.Cloning of Halotolerance 3 Gene and Construction of Its RNAi Vector in Soybean (Glycine max)[J].Soybean Science, 2013, 32(05):12. [doi:10.3969/j.issn.1000-9841.2013.01.004]
- [4]张春宝,李玉秋,彭宝,等.线粒体ISSR和SCAR标记鉴定大豆细胞质雄性不育系与保持系[J]. (darticle.aspx?type=view&id=201301005) 大豆科学, 2013, 32(01):19. [doi:10.3969/j.issn.1000-9841.2013.01.005]
- ZHANG Chun-bao, LI Yu-qiu, PENG Bao, et al.Identification of Soybean Cytoplasmic Male Sterile Line and Maintainer Line with Mitochondrial ISSR and SCAR Markers[J].Soybean Science, 2013, 32(05):19. [doi:10.3969/j.issn.1000-9841.2013.01.005]
- [5]卢清瑶,赵琳,李冬梅,等.RAV基因对拟南芥和大豆不定芽再生的影响[J]. (darticle.aspx?type=view&id=201301006) 大豆科学, 2013, 32(01):23. [doi:10.3969/j.issn.1000-9841.2013.01.006]
- LU Qing-yao, ZHAO Lin, LI Dong-mei, et al.Effects of RAV gene on Shoot Regeneration of Arabidopsis and Soybean [J].Soybean Science, 2013, 32(05):23. [doi:10.3969/j.issn.1000-9841.2013.01.006]
- [6]杜景红,刘丽君.大豆fad3c基因沉默载体的构建[J]. (darticle.aspx?type=view&id=201301007) 大豆科学, 2013, 32(01):28. [doi:10.3969/j.issn.1000-9841.2013.01.007]
- DU Jing-hong, LIU Li-jun.Construction of fad3c Gene Silencing Vector in Soybean[J].Soybean Science, 2013, 32(05):28. [doi:10.3969/j.issn.1000-9841.2013.01.007]
- [7]张力伟,樊颖伦,牛腾飞,等.大豆“冀黄13”突变体筛选及突变体库的建立[J]. (darticle.aspx?type=view&id=201301008) 大豆科学, 2013, 32(01):33. [doi:10.3969/j.issn.1000-9841.2013.01.008]
- ZHANG Li-wei, FAN Ying-lun, NIU Teng-fei, et al.Screening of Mutants and Construction of Mutant Population for Soybean Cultivar "Jihuang13" [J].Soybean Science, 2013, 32(05):33. [doi:10.3969/j.issn.1000-9841.2013.01.008]
- [8]盖江南,张彬彬,吴璐,等.大豆不定胚悬浮培养基因型筛选及基因枪遗传转化的研究[J]. (darticle.aspx?type=view&id=201301009) 大豆科学, 2013, 32(01):38. [doi:10.3969/j.issn.1000-9841.2013.01.009]
- GAI Jiang-nan, ZHANG Bin-bin, WU Lu, et al.Screening of Soybean Genotypes Suitable for Suspension Culture with Adventitious Embryos and Genetic Transformation by Particle Bombardment[J].Soybean Science, 2013, 32(05):38. [doi:10.3969/j.issn.1000-9841.2013.01.009]
- [9]王鹏飞,刘丽君,唐晓飞,等.适于体细胞胚发生的大豆基因型筛选[J]. (darticle.aspx?type=view&id=201301010) 大豆科学, 2013, 32(01):43. [doi:10.3969/j.issn.1000-9841.2013.01.010]
- WANG Peng-fei, LIU Li-jun, TANG Xiao-fei, et al.Screening of Soybean Genotypes Suitable for Somatic Embryogenesis [J].Soybean Science, 2013, 32(05):43. [doi:10.3969/j.issn.1000-9841.2013.01.010]
- [10]刘德兴,年海,杨存义,等.耐酸铝大豆品种资源的筛选与鉴定[J]. (darticle.aspx?type=view&id=201301011) 大豆科学, 2013, 32(01):46. [doi:10.3969/j.issn.1000-9841.2013.01.011]
- LIU De-xing, NIAN Hai, YANG Cun-yi, et al.Screening and Identifying Soybean Germplasm Tolerant to Acid Aluminum [J].Soybean Science, 2013, 32(05):46. [doi:10.3969/j.issn.1000-9841.2013.01.011]

备注/Memo 基金项目: 黑龙江省科技厅项目 (GB03B301-01); 黑龙江省教育厅项目 (1054G032)

作者简介: 冯乃杰 (1970-), 女, 博士研究生, 副教授, 从事大豆化控和栽培生理研究。Tel: 0459-6819185; E-mail:dqfnj@126.com
通讯作者: 祖伟, 教授, 博士生导师。E-mail:yxhloo@sohu.com

更新日期/Last Update: 2014-10-20