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Rice Starch Quality Improvement by Transgenic Technology

DING Yi, DING Qingwen, LI Binqing, SHEN Yi, ZHANG Ning*, WU Dianxing

(Department of Applied Bioscience, Zhejiang University, Hangzhou 310029, China; 1st author: 3110100088@zju.edu.cn; *Corresponding author: 11216028@zju.edu.cn)

Abstract: Starch is the main form of nutrition and energy storage of rice grains, which is mainly composed of amylose and amylopectin. Improvement of quality of rice starch could be modified through changing the content and quality of starch by transgenic technology. The practical cases of starch quality improvement in transgenic rice of therelated starch synthesizing genes were reviewed in this paper.

Key words: rice; starch; transgenic technology

· 綜合信息 ·

江西省 2017 年审定通过的水稻新品种(1)

| 审定编号 (赣审稻) | 品种名称 | 类型 | 选育单位 | 品种来源 | 全生育期 (d) | 区试产量 (kg/667m ²) |
|---------------|----------|---------|--------------------------------|--------------------------------|-------------|---------------------------------|
| 20170001 | 长两优 39 | 籼型两系杂交稻 | 江西洪崖种业有限责任公司、湖南亚华种业科学研究院 | 长早 S × 中早 39 | 110.2 | 510.67 |
| 20170002 | 柒两优 2012 | 籼型两系杂交稻 | 江西金惠种业有限公司、株洲市农业科学研究所 | 株 712S × R2012 | 109.3 | 493.51 |
| 20170003 | 锦两优 816 | 籼型两系杂交稻 | 江西大地丰收种业有限公司、湖南隆平高科种业科学研究院有限公司 | 锦 4128S × HY16 | 109.8 | 496.28 |
| 20170004 | 潭两优 39 | 籼型两系杂交稻 | 江西博大种业有限公司、湘潭市农业科学研究所、中国水稻研究所 | 潭农 S × 中早 39 | 107.6 | 491.25 |
| 20170005 | 宏胡早糯 | 籼型常规糯稻 | 江西红一种业科技股份有限公司 | 中佳早 18 经 ⁶⁰ Co γ 辐射 | 105.0 | 473.00 |

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Comparative Analysis of International Standards for Rice Pesticide Residue Limits

LIU Jing¹, AN Xiaoning^{2*}, WANG Xiaoming¹, JIAO Zizhou¹, XIE Zhongwei¹, XING Jiwei¹

¹ Ji Lin (City) Entry-Exit Inspection and Quarantine Bureau, Jilin, Jilin 132013, China; ² COFCO Rice(JiLin)Limited, Jilin, Jilin 132101, China; 1st author: 56272345@qq.com; *Corresponding author: 67711973@qq.com)

Abstract: The paper introduced present situation of pesticide maximum residue limits about rice in Codex Alimentarius Commission (CAC), Japan, Singapore and Hong Kong, and analyzed the differences of maximum residue limits (MRLs) of rice in China and other countries or regions. On this basis, some measures and suggestions were put forward for the production management and standard system of rice export in China.

Key words: rice; pesticide; maximum residue limits

[illegible]

·综合信息·

江西省 2017 年审定通过的水稻新品种(3)

| 审定编号 (赣审稻) | 品种名称 | 类型 | 选育单位 | 品种来源 | 全生育期 (d) | 区试产量 (kg/667m ²) |
|---------------|------------|---------|--|----------------|-------------|---------------------------------|
| 20170028 | 赣莲优 718 | 籼型三系杂交稻 | 江西省农业科学院水稻研究所 | 赣莲 A × 赣恢 718 | 111.8 | 534.37 |
| 20170029 | 万象优双占 | 籼型三系杂交稻 | 江西红一种业科技股份有限公司 | 万象 A × 双占 | 119.6 | 580.05 |
| 20170030 | 华 6 优 1301 | 籼型三系杂交稻 | 江西惠农种业有限公司 | 华 6A × R1301 | 117.7 | 559.80 |
| 20170031 | 两优 1238 | 籼型两系杂交稻 | 江西省景德镇市农牧渔业科学研究所、江西省源德种业有限公司 | GD-5S × R1238 | 115.9 | 552.08 |
| 20170032 | 源优华占 | 籼型三系杂交稻 | 江西雅农业科技实业有限公司、江西华昊水稻协同创新科技有限公司、中国水稻研究所 | 源 12A × 华占 | 119.6 | 559.41 |
| 20170033 | 五优 76 | 籼型三系杂交稻 | 湖南金稻种业有限公司、江西洪崖种业有限责任公司、广东省农业科学院水稻研究所 | 五丰 A × R76 | 115.8 | 556.12 |
| 20170034 | 润优华占 | 籼型三系杂交稻 | 江西省天仁种业有限公司、广东省农业科学院水稻研究所 | 润丰 A × 华占 | 119.7 | 555.12 |
| 20170035 | 隆香优华占 | 籼型三系杂交稻 | 江西博大种业有限公司、湖南隆平种业有限公司、中国水稻研究所 | 隆香 634A × 华占 | 116.5 | 550.50 |
| 20170036 | 安优华 9 | 籼型三系杂交稻 | 江西金山种业有限公司、广东省农业科学院水稻研究所 | 安丰 A × R 华 9 | 114.6 | 553.49 |
| 20170037 | 吉优 T025 | 籼型三系杂交稻 | 江西农业大学农学院、广东省农业科学院水稻研究所 | 吉丰 A × 昌恢 T025 | 117.2 | 557.65 |
| 20170038 | 恒优丝占 | 籼型三系杂交稻 | 广西恒茂农业科技有限公司 | 恒丰 A × 丝占 | 125.5 | 585.54 |
| 20170039 | 广 8 优华占 | 籼型三系杂交稻 | 广东省农业科学院水稻研究所、中国水稻研究所、江西先农种业有限公司 | 广 8A × 华占 | 124.4 | 580.73 |
| 20170040 | 万象优华占 | 籼型三系杂交稻 | 江西红一种业科技股份有限公司 | 万象 A × 华占 | 125.0 | 578.10 |
| 20170041 | 粤禾丝苗 | 籼型常规稻 | 江西国德种业有限公司、广东省农业科学院水稻研究所 | 粤农丝苗 / 粤银丝苗 | 123.1 | 544.86 |
| 20170042 | 仁 5 优新华粘 | 籼型三系杂交稻 | 江西省萍乡市农业科学研究所、湖南永益农业科技发展有限公司 | 仁 5A × 新华粘 | 121.6 | 596.36 |

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明气孔调节剂可以提高水稻机插秧苗的素质, 尽管可溶性糖含量有所下降, 这可能与此时秧苗叶片较小, 光合能力不强, 且一部分光合产物分配至地下部有关。

比较 2 种气孔调节剂硝普钠溶液和黄腐酸钾溶液的综合效应,笔者认为,在机插秧苗中喷施黄腐酸钾溶液的效果较佳,且以 10 mL/L 的浓度为宜。

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Effects of Stomatal Regulator on Seedling Quality of Rice

XU Zhouwei¹, WEN Danni¹, OUYANG Younan², SHEN Bo¹

(¹ College of Life and Environmental Sciences, Hangzhou Normal University, Hangzhou 310036, China; ² China National Rice Research Institute, Hangzhou 310006, China)

Abstract: In this paper, the effects of stomatal regulators on seedling quality of rice were studied by spraying sodium nitroprusside solution and fulvic acid potassium solution on machine-transplanted rice seedlings in plate. The results showed that spraying different concentrations of sodium nitroprusside and fulvic acid potassium solution could cause the decrease of stomatal conductance, promote the increase of below-ground dry weight and effectively improve root activity. Under the treatment of fulvic acid potassium solution, plant height, base width, below-ground dry weight and chlorophyll content were increased. It was suggested that it is more suitable to spray 10 mL/L fulvic acid potassium solution for machine-transplanted rice seedlings in plate.

Key words: stomatal regulator; sodium nitroprusside solution; fulvic acid potassium solution; rice; seedling quality

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·综合信息·

江西省 2017 年审定通过的水稻新品种(4)

| 审定编号 (赣审稻) | 品种名称 | 类型 | 选育单位 | 品种来源 | 全生育期 (d) | 区试产量 (kg/667m ²) |
|---------------|---------|---------|--|--------------------------------------|-------------|---------------------------------|
| 20170043 | 洪优华占 | 籼型三系杂交稻 | 江西华昊水稻协同创新科技有限公司、江西农业大学农学院、江西省萍乡市农业科学研究所、中国水稻研究所 | 洪 A × 华占 | 122.9 | 601.75 |
| 20170044 | Q 优雅丝 | 籼型三系杂交稻 | 江西天涯种业有限公司、重庆中一种业有限公司、南昌市良种场 | Q1A × 雅丝 | 122.9 | 595.85 |
| 20170045 | 五优 3301 | 籼型三系杂交稻 | 江西省超级水稻研究发展中心、福建省农业科学院生物技术研究所、广东省农业科学院水稻研究所 | 五丰 A × 闽恢 3301 | 123.6 | 589.34 |
| 20170046 | 众优华占 | 籼型三系杂交稻 | 江西省上饶市农业科学研究所 | 众 A × 华占 | 121.9 | 583.55 |
| 20170047 | 航新糯 | 籼型常规糯稻 | 南昌市农作物良种引育中心、广东省农业科学院水稻研究所 | 航香糯 / 新 814 | 123.0 | 460.20 |
| 20170048 | 赣巨 1 号 | 籼型常规稻 | 江西省农业科学院农产品质量与安全标准研究所 | 先恢 207/(91-308/巨胚 1 号)F ₆ | 119.0 | 452.80 |

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Analysis of Rice Varieties Bred During the 12th Five-year Plan in Heilongjiang Province

GAO Shiwei¹, NIE Shoujun^{1*}, CHANG Huilin¹, LIU Qing¹, LIU Yuqiang¹, XIONG Yan², XIE Shupeng¹, XUE Yinghui¹, LIU Lichao¹, MEN Longnan¹, SHI Shuchun¹, CHEN Qiuming³, LI Jingyang⁴

(¹Suihua Branch of Heilongjiang Academy of Agricultural Sciences, Suihua, Heilongjiang 152052, China; ² Heilongjiang Longke Seed Industry Group Co. Ltd., Harbin 150086, China; ³ Harbin Academy of Agricultural Sciences, Harbin 150086, China; ⁴ Heilongjiang Modern Agriculture Demonstration Area Management Center, Harbin 150086, China; 1st author: gaoshiwei1118@126.com; *Corresponding author: nsj-0821@163.com)

Abstract: Comparative analysis of 89 rice varieties which were bred during the 12th five-year plan period in Heilongjiang Province in this paper. The results indicated that the total number, yield, quality, disease resistance and stress resistance of the varieties bred during the period of the 12th five-year plan were improved compared with the varieties bred during the period of the 11th five-year plan. The genetic basis of breeding was still very narrow. In the future, new high quality rice germplasm resources should be introduced from both domestic and exotic, and new backbone parents should be excavated.

Key words: the 12th five-year plan; rice varieties; backbone parent

·综合信息·

江西省 2017 年审定通过的水稻新品种(5)

| 审定编号 (赣审稻) | 品种名称 | 类型 | 选育单位 | 品种来源 | 播始历期 (d) |
|---------------|-------|-------|------------------------------|--|---------------------------|
| 20170049 | 源 12A | 籼型不育系 | 江西天涯种业有限公司 | 金 23A// 金 23B/ 丰源 B 连续回交选育 | 53.0 ~ 63.0 |
| 20170050 | 仁 5A | 籼型不育系 | 江西省萍乡市农业科学研究所、湖南永益农业科技发展有限公司 | 中 9A// 金 23B/1040B 连续回交选育 | 56.0 ~ 76.0 |
| 20170051 | 华 6A | 籼型不育系 | 江西惠农种业有限公司 | 吉丰 A// 吉丰 B/ 中百 B 连续回交选育 | 55.0 ~ 65.0 |
| 20170052 | 万象 A | 籼型不育系 | 江西红一种业科技股份有限公司 | 粤丰 A/ (粤丰 B// 博 B/ G9248)F ₃ 连续回交选育 | 70.0 ~ 90.0 |
| 20170053 | 鑫隆 A | 籼型不育系 | 湖南鑫盛华丰种业有限公司、江西先农种业有限公司 | 金 23A/(舟优 903/ 中 9BF ₄ // IR58025B/Q96F ₄)连续回交 | 74.0 ~ 83.0 |
| 20170054 | 赣莲 A | 籼型不育系 | 江西省农业科学院水稻研究所 | 赣早 A/ (赣早 B/ 赣香 B)F ₃ 连续回交选育 | 55.0 ~ 70.0 |
| 20170055 | 洪 A | 籼型不育系 | 江西农业大学农学院、江西省萍乡市农业科学研究所 | 新露 A/(新露 B/ 珍汕 97B// 176B)F ₃ 连续回交 | 70.0 ~ 84.0 |
| 20170056 | 唐 18S | 籼型不育系 | 江西金信种业有限公司 | 1892S/ 广占 63S 系选 | 75.0 ~ 77.0 或 85.0 ~ 95.0 |
| 20170057 | 兵 12S | 籼型不育系 | 江西天涯种业有限公司 | 株 1S × ZR02 定向选育 | 68.0 ~ 77.0 |

(中稻宜)