

研究论文

光敏核不育水稻的光温反应研究

孙宗修, 程式华, 闵绍楷, 熊振民, 应存山, 斯华敏, 杨仁崔, 梁康迳, 王乃元

中国水稻研究所, 杭州, 310006

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摘要 在人工控制条件下研究了在15小时光照下减数分裂期的不同温度(23.3-30.3℃)对籼稻光敏不育系W6154S和5460S育性转换的影响。结果表明, 温度对育性的影响因温度的高低及处理持续时间长短而异, 不同的材料对温度的反应不同。5460S从不育的临界温度在26.4℃左右, 而W6154S在处理温度范围内均出现自交结实现象, 表明供试的W6154S株系育性转换的临界温度可能超过30.3℃。提出了深入研究影响籼稻光敏不育系育性转换的临界温度的建议。

关键词 [籼稻 \(O.sativa L. subsp.indica\)](#), [光敏不育系](#), [育性转换](#), [临界温度](#)

分类号

Studies on the Response of Photoperiod Sensitive Genic Male Sterile(PGM S) Rice to Photoperiod and Temperature

Sun Zong-xiu, Cheng Shihua, Min Shaokai, Xiong Zhenmin, Ying Cunshang, Si Huamin, Yang Rencui, Liang Kangjing, Wang Naiyuan

China National Rice Research Institute, Hangzhou, China, 310006

Abstract Effect of temperature(daily average air temperature 23.3℃-30.3℃) at meiosis on the fertility of PGMS indica strains, W6154S and 5460S, was studied under controlled conditions. The results indicated that the effect was different with different temperatures and durations, as well as with different PGMS strains. Under longer daylength of 15.0 hours, the critical temperature for the transition of 5460S from sterile to fertile was about 26.4℃, and for that of W6154S, probably above 30.3℃. Measurement of the critical temperatures influencing the fertility of PGMS rice in further studies was also discussed.

Key words [Indica](#) [Photoperiod sensitive genic male sterile\(PGMS\) rice](#) [Sterility](#) [Critical temperature](#)

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通讯作者 孙宗修

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