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研究论文

水稻卷叶性状生理生态效应的研究 Ⅰ.叶片姿态、群体构成及光分布特征

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摘要 以珍汕97B为遗传背景的两个卷叶近等基因系分别与明恢63所配叶片为半卷及平展的杂交组合为材料，进行栽培密度试验，对其叶片姿态及群体结构进行分析。结果表明，卷叶性状可显著降低叶片的披垂程度，减少叶片投影面积，增加群体上层叶面积的比例，改善群体内部透光状况。并且使群体叶面积系数偏小，卷叶群体成穗数偏少，但通过适当增加种植密度，可使其优势得到体现。

关键词 水稻 卷叶 叶片姿态 群体构成 光分布

分类号 S511

Physiological and Ecological Effects of Crimpy Leaf Character in Rice (Oryza sativa L.) Ⅰ. Leaf Orientation, Canopy Structure and Light Distribution

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Abstract Two combinations, whose male parent was Zhenshan 97B and the female parent was two Near Isogenic Lines (NILs) of the same variety with characters of crimpy leaf and flat leaf respectively, were used to investigate physiological and ecological effects of crimpy leaf character. The results showed that, crimpy leaf character decreased drooping degree and projection area of leaf significantly, thus increased percentage of leaf area in upper leaf layer, and optimized canopy light transmission; on the other hand, crimpy leaf populations had lower panicle number and LAI, however, these disadvantages could be overcome by a relatively higher density.

Key words Rice Crimpy leaf Leaf orientation Canopy structure Light distribution

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