

水分胁迫及复水对水稻冠层结构的补偿效应 Compensation Effects of Water Stress and Rewatering on the Structure of Rice Canopy

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关键词: 水稻 水分胁迫 复水 冠层结构 补偿效应

摘要: 通过盆栽和测坑试验,研究了水分胁迫及复水对水稻冠层结构的补偿影响。结果表明:水分胁迫在抑制水稻茎秆、叶片、叶面积延伸生长的同时,能有效地诱导冠层结构,为旱后复水补偿效应的产生提供条件。旱后复水促进了后期穗节的伸长、延缓后期叶片衰老速率、苗后期胁迫使作物对再次受旱的适应能力增强。但补偿效应是有条件的,苗后期重旱和拔节初期轻旱补偿效应最佳,应避免两阶段连旱和拔节期重旱。Research was carried out to determine the compensation effects of water stress and rewatering on the structure of rice canopy by pot and test-pit experiments. The results showed that water stress inhibited the number of leaves and leaf area, and effectively induced the rice canopy structure that was beneficial to the compensation effect of post-drought watering. By post-drought watering, the panicle nodes were elongated, senescence speed of leaves was restrained, and rice adaptabilities to next drought were increased. The compensation effects of rewatering are best after heavy drought at late stage of seedlings and light drought at early stage of jointing. Continuous drought by two rice growth stages and heavy drought at jointing stage should be avoided.

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