

农学—研究报告

秸秆还田下连作晚稻不同栽培方式比较研究

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摘要:

应用早稻秸秆还田和连作晚稻轻简化栽培技术是当前发展新型农作制度和质量效益型农业的重要措施。此研究对早稻秸秆还田条件下连作晚稻手移栽、机插和抛秧3种栽培方式进行比较, 结果表明, 连作晚稻手移栽栽培方式产量最高, 机插次之, 抛秧的产量最低。但手移栽栽培方式的产量与机插处理的差异不显著, 但二者均与抛秧栽培方式的差异达到显著水平。与手移栽处理相比, 机插处理抽穗期、成熟期、抽穗至成熟期的干物质含量均相近, 且手移栽与机插栽培方式抽穗至成熟期的干物质积累量显著高于抛秧。秸秆还田降低了3种稻作方式的有效分蘖数, 抛秧处理的差异最大。此外, 与手移栽和抛秧相比, 机插栽培方式显著节省省工。综合来看, 秸秆还田条件下, 机插稻表现高产稳产、省工节本, 是浙江省双季稻区值得推广的栽培方式, 有着广阔的应用前景。

关键词: 连作晚稻

Comparative Study on Different Cultivation Patterns of Later Rice in Straw Returning

Abstract:

The application of early straw returning and later rice simplified cultivation techniques are the most important measure both in the current development of new farming systems and quality and efficient agriculture. In this study, the three cultivation patterns (handmade transplanting, mechanical interpolation and scattered transplanted) of later rice were comparative studied. The results showed that the method of handmade transplanting got the highest yield, but only a little bit higher than the mechanical interpolation, while scattered transplanted got much lower yield. Compared to handmade transplanting treatment, the dry matter accumulation of mechanical interpolation was similar in heading stage, maturity stage and heading-maturity stage; and the dry matter accumulation of handmade transplanting and mechanical interpolation was significantly higher than the scattered transplanted in heading-maturity stage. The effective tillers of three cultivation patterns were reduced in straw returning, especially scattered transplanted. In addition, compared with the handmade transplanting and scattered transplanted, the mechanical interpolation significantly saved more time and money. On the whole, in early straw returning conditions, mechanical interpolation expresses high and stable yield. Therefore, the mechanical interpolation is worthy of planting in Zhejiang Province, and it has broad application prospects.

Keywords: later rice

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