

农学—应用研究

滨海盐碱地中垄作模式对菊芋生长及养分吸收的影响

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摘要:

菊芋具有很强的环境适应性, 种植菊芋对改良滨海盐碱地并提高土壤固碳量有很大的潜力。为了提高菊芋在滨海盐碱地中的生物量及固碳量, 采用垄作模式栽种, 探讨菊芋的生长及土壤养分吸收过程, 从而为更好地种植菊芋提供依据。结果表明, 垄作处理可显著提高菊芋产量、生物量及养分吸收量, 菊芋产量可提高约15%, 全株干物质量提高47%, 生物固碳量提高29%。垄作模式有利于滨海盐碱地中菊芋产量提高与固碳量增加。

关键词: 盐碱地

Effect of Ridge Cultivation on the Growth and Nutrient Uptake of Jerusalem artichoke at Salinized Coastal Areas

Abstract:

Jerusalem artichoke is adaptive greatly to various environments. In the salinized coastal area, Jerusalem artichoke plantation will be benefit for soil quality improvement and carbon sequestration. In order to improve the yield and carbon sequestration, the effect of ridge cultivation on the growth and nutrient uptake of Jerusalem artichoke was investigated in a coastal area. The objective was to provide some evidences for better management of Jerusalem artichoke in the salinized coastal area. Results showed that the ridge cultivation increased significantly the yield, biomass and nutrient uptake of Jerusalem artichoke. The increase rates of yield, biomass and carbon sequestration were 15%, 47% and 29%, respectively. Overall, the ridge cultivation is benefit for yield improvement and carbon sequestration of Jerusalem artichoke in the salinized coastal areas.

Keywords: salinized coastal area

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