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土壤调理剂对土壤理化性质及甘蓝生理特性的影响

Effects of soil conditioner on soil physical and chemical properties and physiological characteristics of cabbage

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英文关键词: soil conditioner; cabbage; soil physical and chemical properties; photosynthetic properties

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中文摘要:

试验研究了土壤调理剂对土壤结构性质和甘蓝根系活力、光合指标的影响。结果表明,施用调理剂后,处理两次、处理一次分别使20 cm和30 cm土层的容重下降7.3%、1.9%和4.6%、1.3%,孔隙度分别提高9.3%、2.8%和5.9%、1.9%;与对照相比,处理两次后的阳离子交换量在0~27 cm、27~45 cm土层分别增加5.7%和10.9%;甘蓝的根系活力,处理与对照相比达到1%的显著差异水平;改变了Pn的光合日变化曲线,提高了甘蓝对光强的适应能力,光合能力加强。

英文摘要:

The experiments were conducted to study the effects of soil conditioner on root activity and photosynthetic paramet ers of cabbage. The results indicate that soil conditioner could damage the relatively compacted condition of soil, and m ake porosity contributed reasonably. Treatment with 2 (dw2) and dwl could separately make the bulk densities decline by 7.3%, 1.9% and 4.6%, 1.3%, separately and make the porosity increase by 9.3%, 2.8% and 5.9%, 1.9% in soil layers of $0 \sim 20$ cm and $0 \sim 30$ cm, respectively. Compared with control, the CEC(cation exchange capacity) of dw2 increase by 5.7% and 10.9% in soil layers of $0 \sim 27$ cm and $27 \sim 45$ cm, the root activity of cabbage was significantly different, and the diurnal changes of Pn were influenced, with increasing the capability of photosynthesis and improving the adaptability to light intensity.

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