

植物混掺物对甘肃景泰砂壤土入渗过程的影响 Impacts of Plant Additive on the Infiltration with Sandy Loam

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关键词: 土壤水扩散率 入渗速率 湿润锋 土壤含水量 混掺物

摘要: 通过室内试验,研究了不同混掺物及不同混掺比例对土壤水分入渗特性及湿润体含水量分布规律的影响。结果表明:指数函数能较好地描述含有混掺物的土壤水扩散率;添加一定比例混掺物的土体能有效延长水分对耕层土壤的湿润,增大水分在耕层的滞留时间;混掺3%玉米叶处理和1%玉米叶处理能够有效提高耕层土壤含水量。Through laboratory experiments, the soil moisture infiltration characteristics and the distribution rule of soil moisture in wetting front are studied under the condition of different additives and proportions. Results show that the relationship between soil moisture diffusivity and soil water content can be better described by an exponential function. The soil with a certain additive can prolong the time of high moisture in the arable layer. The treatment with 3% and 1% maize leaf can improve soil water content effectively. The results can provide an engineering method for large scale soil improvement.

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