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园艺—研究报告

不同灌水次数对日光温室番茄土壤水分动态变化规律的影响

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摘要:

根据番茄在整个生育期内土壤水分变化特点，充分利用有限水资源，调节土壤水分状况。在相同灌水量条件下，利用时域反射仪研究不同灌水次数对土壤含水量的变化的影响。结果表明：各处理土壤贮水量变化的深度一般在0~100 cm内，尤其在0~60 cm变化最为激烈，100~180 cm范围内土壤水分变化不明显。按土壤水分运移规律进行划分，将土壤水分的垂直变化分为4层，即活跃层（0~30 cm）、次活跃层（30~60 cm）、缓变层（60~100 cm）和均稳层（100~180 cm）。灌水次数越少对土壤水分消耗的越多，易造成活跃层和次活跃层土壤水分亏缺；反之，则土壤水分消耗较少。

关键词: 土壤水分动态变化

Research on Soil Water Dynamics of Greenhouse Tomato by Different Irrigation Frequency

Abstract:

In the whole growth period of tomato, according to soil moisture characteristics, full used of limited water resources and regulated soil moisture. Used TDR to study the yield and soil water dynamics of greenhouse tomato by different irrigation times of some irrigation amount. The result showed that: the depth of soil water dynamics changes by different treatments was 0-100 cm, and the change of depth 0-60 cm was best fury. The change of depth 100-180 cm was not distinctness. By soil moisture migration to be divided, there were 4 layers divided by the vertical variation of soil moisture: the active layer (0-30 cm), sub-active layer (30-60 cm), graded layer (60-100 cm) and stable layer (100-180 cm). Irrigation times less then consumption of soil moisture more, led to the active layer and the second active layer of the soil water deficit easily. The more number of irrigation on soil the moisture consume less, could easily lead times active layer of soil moisture deficit.

Keywords: soil water dynamics

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