Yield performance of Red onion (*Allium ascalonium. L*) under different irrigation management in Jaffna peninsula

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Abstract

Study discuss the yield performance of red onion under sprinkler irrigation with different moisture regime in DL_3 agro climatic zone in calcic red latasols in Jaffna. The objective of the study is to assess yield performance of red onion under different irrigation management. A field trail was designed with five treatments; conventional practice by farmer as control, basin and raised bed planting with 40 cb and 60 cb hydraulic potential with three replicates. The average time period required to bring the field capacity to 10 cb from 40 cb and 60 cb was 45 min and 60 min respectively with 3.5 l/min discharge rate. The efficiency of crop water consumption at 40 cb planted on raised bed was 1.66 $kg/m^2/mm$ and at 60 cb planted on raised bed was 1.53 $kg/m^2/mm$. Treatment with 40 cb tension planted on raised bed with sprinkler irrigation recorded the highest yield of 6.04 kg/m^2 and followed by the treatment with 60 cb tension planted on raised bed (5.59 kg/m^2). When compared with control those were more than 30% and 20% respectively.

Keywords

Sprinkler irrigation, Red onion, Yield performance

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