



RESEARCH PAPER

Moisture sensor based irrigation to increase fresh pod yield of pea

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Abstract : Pea is the delicious vegetable consumed in India. Conventional irrigation is being practiced to cultivate pea crop, which consumes lot of water and uneven distribution of soil moisture. Drip irrigation plays a major role for uniform distribution of water. Further water saving and maximum water use efficiency can be achieved through innovative technologies like soil moisture sensor based irrigation scheduling for pea. Moisture presence in soil can be detected by soil moisture sensors or Tensiometers. When irrigation is scheduled based on soil moisture measurement using tensiometers or soil moisture sensors, it would increase fresh pod yield of pea and improve water productivity. A research was conducted on pulse crop of pea (*Pisum Sativum* L.) to decide irrigation quantity and frequency according to the presence of soil moisture with different irrigation and fertigation treatments. The research findings indicated irrigation at the soil moisture tension of 30 kPa with 1.2 times more fertilizer application would bring maximum yield and water productivity of pea.

Key Words : Irrigation scheduling, Pea crop, Soil matric potential, Tensiometer, Water productivity

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