

## RESEARCH ARTICLE

# Effect of auto-irrigation system on crop yields

■ Sumitra Goswami and Ashok Dangi

### SUMMARY

The vast majority of Indians live in villages and depend on farming to live on. Today the most popular social interaction and time consuming mission are planning or farming watering exercises. Regardless of the season, whether it is sunny, droughty, shady or damp, the amount of water the plants receive must be controlled. Currently in operation, water systems can be used for water plants effectively when necessary. However, two main considerations need to be taken into account where and how much water is needed for this manual watering scheme. To reduce handling tasks and make work simpler, a programmed automatic irrigation system (Automatic Irrigation System) is developed. It utilises output to naturally assess the soil and water dampness of the plant when no humidity in the dirt has been observed. This instrument can also be used on big farms.

**Key Words :** Arduino uno, Automatic, Bluetooth, Irrigation, Soil moisture sensor

**How to cite this article :** Goswami, Sumitra and Dangi, Ashok (2021). Effect of auto-irrigation system on crop yields. *Internat. J. Plant Sci.*, 16 (1): 67-72, DOI: 10.15740/HAS/IJPS/16.1/67-72, Copyright@ 2021: Hind Agri-Horticultural Society.

**Article chronicle :** Received : 26.08.2020; Revised : 16.11.2020; Accepted : 17.12.2020

The use of regulated proportions of water to plants at required ranges is referred to as irrigation. In dry regions and during periods of surprising precipitation, water structures aid the advancement of scenes and the revegetation of upset soils. Water structure is additionally valuable for expanding yield, smothering weed development in grain fields and

forestalling soil association. Water structure frameworks of this sort are likewise utilized for cooling animals, dust disguise, sewage ejection, and mining. This proposed plot depends on the dampness substance of the dirt. A dirt dampness sensor is a gadget that actions the dampness substance of the dirt. On the off chance that the dirt dampness falls under a specific level, the water system will start consequently. In the event that the dirt dampness level transcends the setpoint, the water system will be killed naturally. Through bluetooth, the client can handle and screen the entire machine. Arduino is joined to a bluetooth module. The arduino board is associated with the LCD. In which the damp substance of the dirt appears. This framework is easy to utilize, trustworthy, and reasonable. This forefront innovation can significantly improve monetary development. This type of innovation

### MEMBERS OF THE RESEARCH FORUM

#### Author to be contacted :

**Sumitra Goswami**, Engineering and Technology Center for Animal Sciences, RAJUAS, Bikaner (Rajasthan) India  
Email : summy\_15@yahoo.co.in

#### Address of the Co-authors:

**Ashok Dangi**, Engineering and Technology Center for Animal Sciences, Rajasthan University of Veterinary and Animal Sciences, Bikaner (Rajasthan) India  
(Email: drashokdangi@gmail.com)