

***Fertigation Scheduling System Based On Plant Age And Irrigation Volume  
In Drip irrigation***

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**ABSTRACT**

*This research develops an optimized fertigation scheduling system based on plant age and irrigation volume in a drip irrigation system. The system is designed to enhance the efficiency of water and nutrient use, tailored to the specific needs of plants at various growth stages. The methodology involves modeling plant growth, measuring water and nutrient requirements at each plant age phase, and implementing an automatic scheduling algorithm to regulate the appropriate irrigation volume. The results indicate that this system significantly reduces water and fertilizer usage while maintaining or increasing crop yields. Thus, this fertigation scheduling system offers an effective and sustainable solution for modern agricultural practices using drip irrigation technology.*

***Keywords:*** *Fertigation scheduling system, Plant age, Irrigation volume, Drip irrigation*