

Title: Development of a Field-Applicable Water Disinfection System from Agricultural By-Products

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Abstract: Agricultural water, which comes from a variety of sources, including surface water, groundwater and rainwater, is essential for maintaining an adequate food supply, raising farm animals, and making it possible for fresh fruits, vegetables and plants to grow. However, water scarcity is a major issue. California's 2012-2014 drought severely impacted California's agricultural production due to the shortage of water supply. Because of this, a better strategic plan for water recycling is required. In addition to water scarcity, poor agricultural water quality can affect the quality of crops and if not sanitized or cleaned properly, can harbor bacteria and can lead to foodborne illnesses to the people who consume them. In order to improve the quality and safety of agricultural water and minimize the risk of cross-contamination, a newer water disinfection system is needed to sanitize agricultural water more efficiently.