

# Sludge Treatment Wetland for Treating Microalgae Digestate Grown in Agricultural Runoff: A Technical, Economic, and Environmental Assessment

Eva Gonzalez-Flo <sup>1,\*</sup>, Antonio Ortiz <sup>2</sup>, Carlos A. Arias <sup>3</sup>, Rubén Díez-Montero <sup>2,4</sup>, Norbert Kohlheb <sup>5</sup>, Ulf-Henning Schauser <sup>6</sup>, Joan García <sup>2</sup> and Peder K. S. Gregersen <sup>7</sup>

<sup>1</sup> GEMMA-Group of Environmental Engineering and Microbiology, Department of Civil and Environmental Engineering, Escola d'Enginyeria de Barcelona Est (EEBE), Universitat Politècnica de Catalunya-BarcelonaTech, Av. Eduard Maristany 16, Building C5.1, E-08019 Barcelona, Spain

<sup>2</sup> GEMMA-Group of Environmental Engineering and Microbiology, Department of Civil and Environmental Engineering, Universitat Politècnica de Catalunya-BarcelonaTech, c/Jordi Girona 1-3, Building D1, E-08034 Barcelona, Spain

<sup>3</sup> Department of Biology, Aarhus University, 8000 Aarhus, Denmark

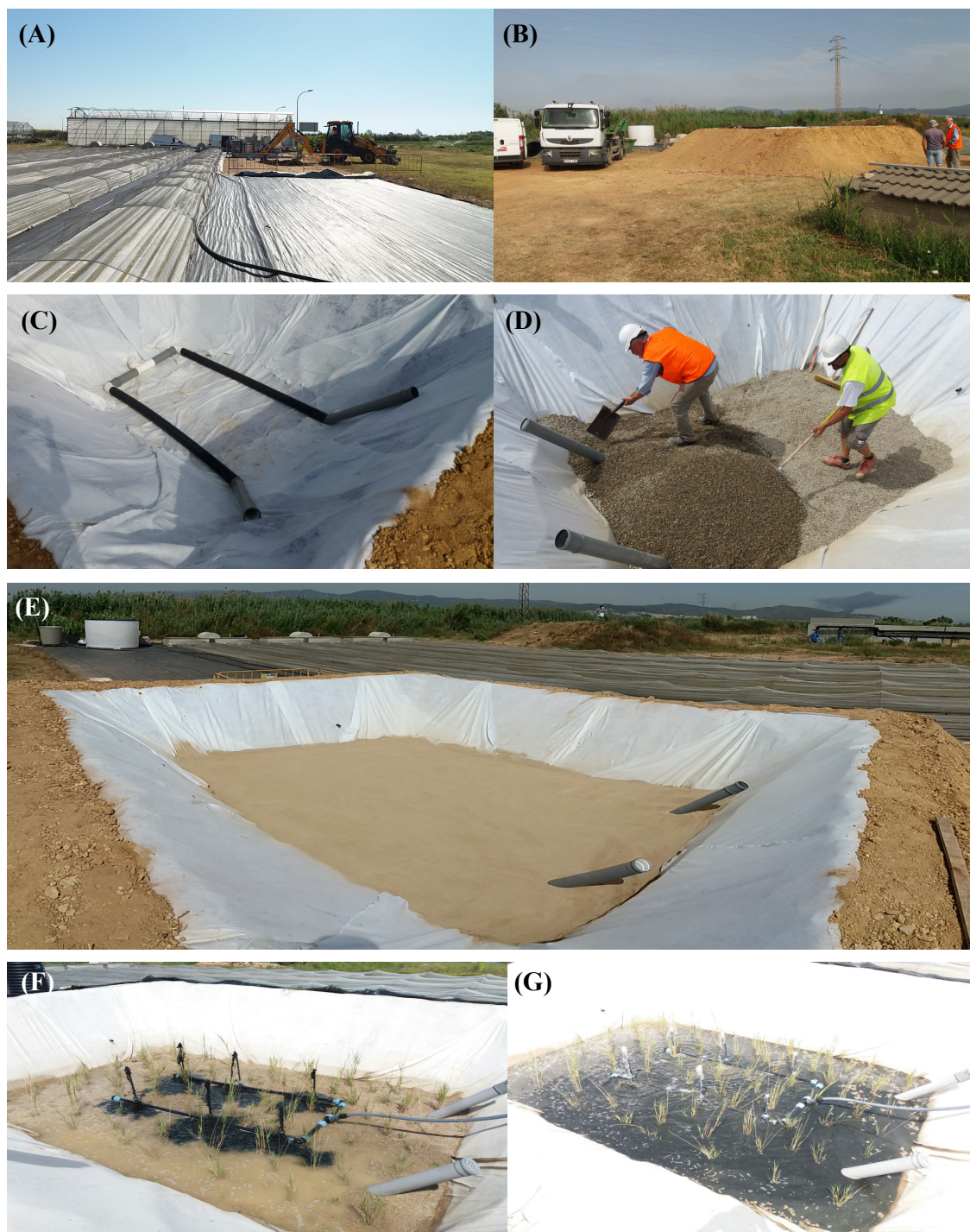
<sup>4</sup> GIA-Group of Environmental Engineering, Department of Water and Environmental Sciences and Technologies, Universidad de Cantabria, Avda. Los Castros s/n, 39005 Santander, Spain

<sup>5</sup> Helmholtz-Zentrum für Umweltforschung GmbH-UFZ ("UFZ"), 04318 Leipzig, Germany

<sup>6</sup> N.A.T., Ingenieurökologisches Planungsbüro, 24340 Eckernförde, Germany

<sup>7</sup> Center for Recirculating v/Peder S, 6870 Gregersen Ölgod, Denmark

\* Correspondence: eva.gonzalez.flo@upc.edu; Tel.: +34-934137352



**Figure S1.** Images depicting the construction and feeding process of the Sludge Treatment Wetland (STW). (A) Overview of the facility's location. (B) Soil preparation for STW construction. (C) Geotextile layer and installation of drainage pipes. (D-E) Gravel deposition around the drainage pipes. (F) Initial feeding of the STW with digestate. (G) STW condition after feeding.