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## Wastewater treatment and biomass growth of eight plants for shallow bed wetland roofs

Thi-Dieu-Hien Vo<sup>1,2</sup>, Xuan-Thanh Bui<sup>3\*</sup>, Dinh-Duc Nguyen<sup>4</sup>, Van-Truc Nguyen<sup>5</sup>, Huu-Hao Ngo<sup>6</sup>,  
Wenshan Guo<sup>6</sup>, Phuoc-Dan Nguyen<sup>3</sup>, Cong-Nguyen Nguyen<sup>7</sup> & Chitsan Lin<sup>8</sup>

<sup>1</sup>*Environmental Engineering and Management Research Group, Ton Duc Thang University, Ho Chi Minh City, Vietnam.*

<sup>2</sup>*Faculty of Environment and Labour Safety, Ton Duc Thang University, Ho Chi Minh City, Vietnam. Email: [vothidieuhien@tdt.edu.vn](mailto:vothidieuhien@tdt.edu.vn).*

<sup>3</sup>*Faculty of Environment and Natural Resources, University of Technology, Vietnam National University – Ho Chi Minh, Viet Nam. Email: [bxthanh@hcmut.edu.vn](mailto:bxthanh@hcmut.edu.vn).*

<sup>4</sup>*Department of Environmental Energy & Engineering, Kyonggi University, 442-760, Republic of Korea.*

<sup>5</sup>*Institute of Research and Development, Duy Tan University, 03 Quang Trung, Da Nang, Vietnam.*

<sup>6</sup>*School of Civil and Environmental Engineering, University of Technology Sydney, Broadway, NSW 2007, Australia.*

<sup>7</sup>*Faculty of Environment and Natural Resources, Da Lat University, Da Lat, Vietnam.*

<sup>8</sup>*Department of Marine Environmental Engineering, National Kaohsiung Marine University, Kaohsiung 81157, Taiwan.*

## Abstract

Wetland roof (WR) could bring many advantages for tropical cities such as thermal benefits, flood control, green coverage and domestic wastewater treatment. This study investigates wastewater treatment and biomass growth of eight local plants in shallow bed WRs. Results showed that removal rates of WRs were 21-28 kg COD ha<sup>-1</sup> day<sup>-1</sup>, 9-13 kg TN ha<sup>-1</sup> day<sup>-1</sup> and 0.5-0.9 kg TP ha<sup>-1</sup> day<sup>-1</sup>, respectively. The plants generated more biomass at lower hydraulic loading rate (HLR). Dry biomass growth was 0.4-28.1 g day<sup>-1</sup> for average HLR of 247-403 m<sup>3</sup> ha<sup>-1</sup> day<sup>-1</sup>. Green leaf area of the plants was ranging as high as 67-99 m<sup>2</sup>

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