

Journal name: *Agronomy*

Manuscript Title: Agricultural utilization of unused resources: liquid food waste material as a new source of plant growth promoting microbes.

Authors: Waleed Asghar¹, Shihoko Kondo¹, Riho Iguchi¹, Ahmad Mahmood¹, Ryota

Kataoka^{1*}

1 Department of Environmental Sciences, Faculty of Life and Environmental Sciences, University of Yamanashi, Kofu, Japan.

* Correspondence: rkataoka@yamanashi.ac.jp

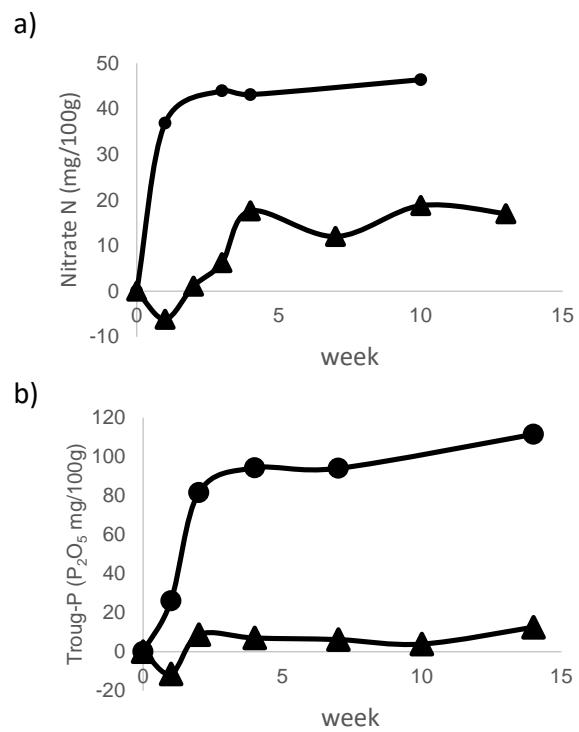


Figure S1: Nitrate nitrogen (a) and available phosphate (b) release from organic materials, ● rapeseed oil cake, ▲ Liquid food waste material (LFM)

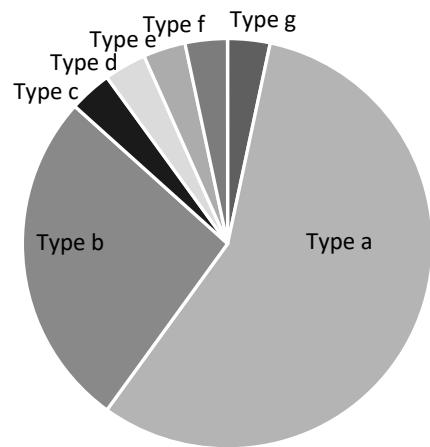


Figure S2: Thirty one strains isolated from liquid food waste material belong to genus *Bacillus*. type a closely related to *Bacillus velezensis* strain FZB42, type b closely related to *Bacillus amyloliquefaciens* strain MPA 1034, type c closely related to *Bacillus vallismortis* strain NRRL B-14890, type d closely related to *Bacillus subtilis* subsp. *iniquosorum* strain BGSC 3A28, type e closely related to *Bacillus wiedmannii* strain FSL W8-0169, type f closely related to *Bacillus velezensis* strain NTGB-29, and type g closely related to *Bacillus vallismortis* strain DSM 11031.

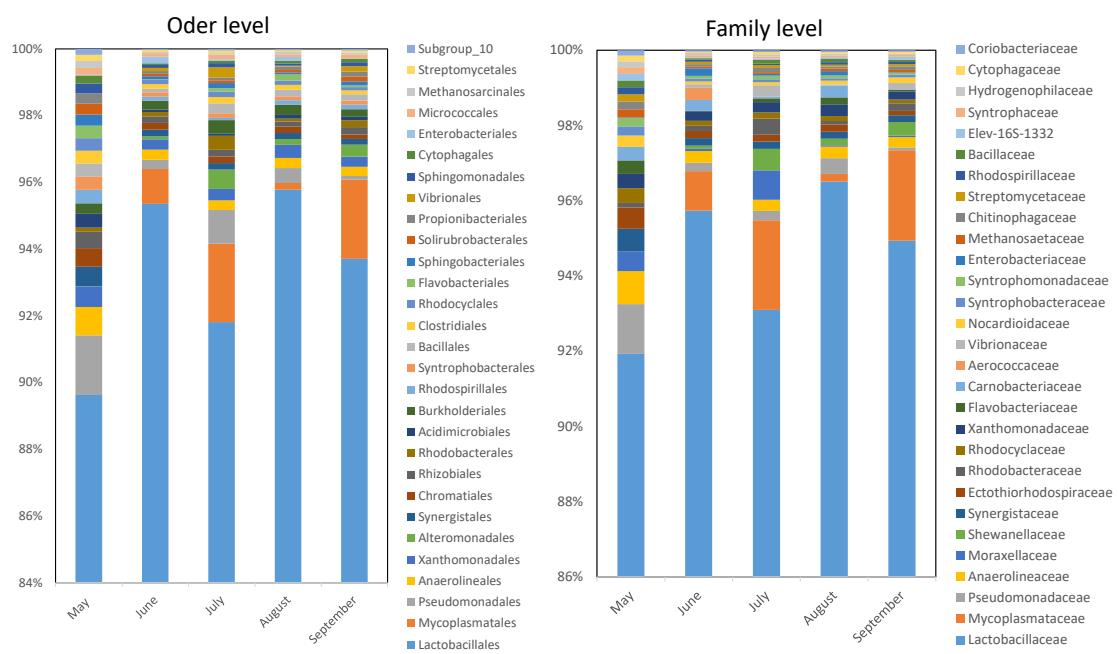


Figure S3: Top 30 of bacterial composition in different taxonomic level.