Supplementary Materials

**Correction of Total Solids and Volatile Solids**

For TS and VS values of food waste after storage in lactic acid fermentation, the TS and VS values were corrected using the method proposed by (Kreuger et al., 2011) to take into account the volatilization of high amount of volatile fatty acids and other metabolites (alcohol) accumulated during storage. The TS and VS correction were done to take into account the organic acids that evaporated during drying at 105 °C, which was intended only for water removal. For the TS and VS correction, first, the concentration of organic acids in the food waste by the end of storage was determined using high performance liquid chromatograph (HPLC). This concentration was labelled as **c1** (concentration of organic acids in pre-dried substrate). Next, the substrate was then dried in the oven in two sets of triplicates (Set 1 and Set 2) at 105 °C for 48 hours to determine the TS content. The TS values was considered the “uncorrected TS”. Set 1 was then steeped in Milli-Q water to extract the organic acids remaining in the substrate after drying. The steeping was done for three days in refrigerator at 4 °C to minimize changes. The dilution factor was recorded as “**D**”. The amount of substrate diluted was recorded as **m2**. Set 2 was heated in the furnace at 550 °C to determine the VS. The VS value was considered “uncorrected VS”. After steeping Set 1 in water, the liquid was centrifuged at 13,000 rpm for 15 minutes, and the supernatant was analyzed with HPLC. This concentration was recorded as “**c2**”. The correction was done using the equations:

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| Concentrations in undried (wet) stored food waste = (m1 - m2) × c1/m1 | Eqn. 1 |

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| Concentrations after drying related to wet stored food waste = (m1 - m2) × c1/m1 | Eqn. 2 |

Where m1 = original wet weight of food waste in relations to the TS added (in g), m2 = mass of substrate diluted (in g), c1 = concentration of organic acids in pre-dried substrate, c2 = concentration of organic acids in dried substrate and D = dilution factor.

The correction factor of each organic acids, which was the volatilization factor (how much organic acids was evaporated during drying was determined using the following equation:

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| Correction factor = (Equation 1 – Equation 2) / Equation 1 | Eqn. 3 |

Correction factor of 1 means the organic acid was fully evaporated during drying and 0 means non evaporated. The “corrected TS” and “corrected VS” was determined with the following equations:

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| Corrected TS = Uncorrected TS + Σ(correction factor × Equation 1) | Eqn. 4 |

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| Corrected VS = (Uncorrected VS / Uncorrected TS) × Corrected TS | Eqn. 5 |