

**Table 1**

Fatty acid production of *S. sp.* HBW10 utilizing varied content of food waste from two different restaurants with initial pH adjusted by NaOH or NaHCO<sub>3</sub>.

| Cultivation time (day)                                                                    | FWH (% V/V) | TFAs (g/L) | SFAs (%TFAs) | MUFAs (%TFAs) | PUFAs (%TFAs) | SMUFAs (%TFAs) |
|-------------------------------------------------------------------------------------------|-------------|------------|--------------|---------------|---------------|----------------|
| <b>Initial pH adjustment of FWH1 medium by NaOH (FWH1-NaOH)</b>                           |             |            |              |               |               |                |
| 1                                                                                         | 0           | 0.11       | 57.36        | 11.24         | 20.01         | 88.61          |
| 1                                                                                         | 50          | 0.06       | 45.90        | 17.06         | 8.32          | 71.28          |
| 1                                                                                         | 100         | 0.04       | 55.26        | 17.6          | 3.43          | 76.29          |
| 3                                                                                         | 0           | 0.16       | 47.28        | 25.93         | 19.61         | 73.21          |
| 3                                                                                         | 50          | 0.06       | 43.68        | 13.8          | 5.20          | 62.68          |
| 3                                                                                         | 100         | 0.05       | 45.91        | 15.36         | 7.65          | 68.92          |
| 5                                                                                         | 0           | 0.17       | 46.5         | 24.35         | 22.02         | 70.85          |
| 5                                                                                         | 50          | 0.10       | 34.07        | 38.82         | 0.85          | 72.89          |
| 5                                                                                         | 100         | 0.04       | 54.80        | 17.97         | 1.30          | 72.77          |
| <b>Initial pH adjustment of FWH2 medium by NaOH (FWH2-NaOH)</b>                           |             |            |              |               |               |                |
| 5                                                                                         | 0           | 0.17       | 46.5         | 24.35         | 22.02         | 70.85          |
| 5                                                                                         | 50          | 0.34       | 34.61        | 24.72         | 27.81         | 59.33          |
| 5                                                                                         | 100         | 0.08       | 28.06        | 24.69         | 2.15          | 52.75          |
| <b>Initial pH adjustment of FWH1 medium by NaHCO<sub>3</sub> (FWH1-NaHCO<sub>3</sub>)</b> |             |            |              |               |               |                |
| 5                                                                                         | 0           | 0.17       | 46.5         | 24.35         | 22.02         | 70.85          |
| 5                                                                                         | 50          | 0.20       | 24.14        | 24.38         | 0.91          | 48.52          |
| 5                                                                                         | 100         | 0.11       | 23.7         | 26.15         | 0.91          | 49.85          |

**Table 2**

Fatty acid composition of *S. sp.* HBW10 utilizing varied content of FWH1 with different initial pH adjusted by NaOH.

| Food waste<br>hydrolysate (g/L) | pH  | Biomass<br>(g/L) | TFAs<br>(g/L) | SFAs<br>(%TFAs) | MUFAs<br>(%TFAs) | PUFAs<br>(%TFAs) | SMUFAs<br>(%TFAs) |
|---------------------------------|-----|------------------|---------------|-----------------|------------------|------------------|-------------------|
| 0                               | 6.2 | 4.06             | 0.17          | 46.50           | 24.35            | 22.02            | 70.85             |
| 0                               | 7   | 4.07             | 0.10          | 65.23           | 5.30             | 29.48            | 70.52             |
| 0                               | 8   | 4.09             | 0.17          | 72.07           | 4.55             | 23.39            | 76.61             |
| 50                              | 6.2 | 0.77             | 0.10          | 34.07           | 38.82            | 0.85             | 72.89             |
| 50                              | 7   | 3.45             | 0.11          | 88.25           | 11.75            | 0.00             | 100.00            |
| 50                              | 8   | 3.80             | 0.12          | 89.84           | 9.31             | 0.85             | 99.15             |
| 100                             | 6.4 | 1.48             | 0.04          | 54.80           | 17.97            | 1.30             | 72.77             |
| 100                             | 7   | 1.92             | 0.04          | 97.70           | 0.00             | 2.30             | 97.70             |
| 100                             | 8   | 2.50             | 0.05          | 98.61           | 0.00             | 1.39             | 98.61             |