

Table S4 Volatile alcohols and esters present in the fermentation media at day 2 of fermentation.

| DAY2 | VIN13 | SOK2-VIN13 | BM45 | RAP1-BM45 | DV10 |
|-----------------------|--------------|---------------------|--------------|--------------------|--------------|
| Ethyl Acetate | 5.53 ± 1.40 | 5.70 ± 1.20 | 7.60 ± 0.71 | 6.14 ± 2.16 | 8.10 ± 2.13 |
| Propanol | 33.24 ± 4.38 | 34.25 ± 3.19 | 32.81 ± 1.18 | 27.25 ± 1.37 | 28.39 ± 5.21 |
| Isobutanol | 5.78 ± 0.71 | 8.71 ± 0.74 | 9.26 ± 0.70 | 8.20 ± 1.70 | 6.20 ± 1.62 |
| Isoamyl Acetate | 0.10 ± 0.11 | 0.31 ± 0.02 | 0.18 ± 0.11 | 0.24 ± 0.11 | 0.17 ± 0.17 |
| Butanol | 0.16 ± 0.2 | 0.41 ± 0.12 | Bd | Bd | Bd |
| Isoamyl alcohol | 32.58 ± 5.74 | 37.27 ± 3.82 | 37.80 ± 2.90 | 35.85 ± 3.30 | 32.78 ± 3.61 |
| Ethyl Hexanoate | Bd | bd | Bd | Bd | 0.17 ± 0.17 |
| Hexanol | Bd | bd | Bd | Bd | Bd |
| Ethyl Caprylate | 0.05 ± 0.04 | 0.09 ± 0.01 | 0.10 ± 0.02 | 0.11 ± 0.03 | 0.11 ± 0.03 |
| Acetic Acid | 449.5 ± 17.8 | 525.2 ± 26.2 | 715.3 ± 18.9 | <i>658.8 ± 7.0</i> | 618.4 ± 15.4 |
| Propionic Acid | 2.23 ± 0.15 | 2.47 ± 0.18 | 2.04 ± 0.19 | 2.15 ± 0.23 | 2.38 ± 0.31 |
| Iso-Butyric Acid | 0.78 ± 0.04 | 0.71 ± 0.02 | 0.79 ± 0.06 | 0.68 ± 0.04 | 0.80 ± 0.06 |
| Butyric Acid | 0.55 ± 0.04 | 0.52 ± 0.01 | 0.58 ± 0.05 | 0.57 ± 0.01 | 0.67 ± 0.02 |
| Ethyl Caprate | 0.08 ± 0.016 | 0.09 ± 0.02 | 0.12 ± 0.04 | 0.16 ± 0.06 | 0.10 ± 0.02 |
| Iso-Valeric Acid | 0.45 ± 0.03 | 0.37 ± 0.01 | 0.47 ± 0.08 | <i>0.33 ± 0.04</i> | 0.38 ± 0.06 |
| Diethyl Succinate | Bd | bd | Bd | Bd | Bd |
| Valeric Acid | Bd | bd | Bd | Bd | Bd |
| 2-Phenylethyl Acetate | Bd | bd | Bd | Bd | Bd |
| Hexanoic Acid | 0.73 ± 0.03 | 0.85 ± 0.07 | 0.94 ± 0.13 | 1.05 ± 0.15 | 1.39 ± 0.07 |
| 2-Phenyl Ethanol | 6.42 ± 0.47 | 7.11 ± 0.69 | 9.64 ± 0.35 | <i>7.57 ± 0.78</i> | 7.49 ± 0.50 |
| Octanoic Acid | 0.76 ± 0.15 | 1.14 ± 0.26 | 1.25 ± 0.64 | 1.03 ± 0.10 | 3.05 ± 0.92 |
| Decanoic Acid | 2.54 ± 0.19 | 2.34 ± 0.26 | 2.73 ± 0.12 | 2.95 ± 0.38 | 3.33 ± 0.09 |

All values are expressed in mg.L⁻¹ and are the average of 4 biological repeats ± standard deviation. Metabolites present at concentrations below the detection limit are indicated by “Bd”. Values in bold indicate a statistically significant increase in concentration for a given metabolite relative to the untransformed control, whereas values in italics indicate a significant decrease in concentration.